

**WSR 12-15-073**  
**PROPOSED RULES**  
**DEPARTMENT OF**  
**SOCIAL AND HEALTH SERVICES**  
(Aging and Disability Services)  
[Filed July 18, 2012, 9:31 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-05-114.

**Title of Rule and Other Identifying Information:** The department intends to amend WAC 388-78A-2020 Definitions, 388-78A-2461 Background check—General, 388-78A-2462 Background check—Washington state—Who is required to have, 388-78A-2464 Background check—Process, 388-78A-2465 Background check—Results, 388-78A-2466 Background check—Valid for two years, 388-78A-2468 Background check—Conditional hire—Pending result, 388-78A-2469 Background check—Disclosure statement, 388-78A-2470 Background check—Employment-disqualifying information, 388-78A-2474 Training and home care aide certification requirements, and 388-78A-2750 Application process.

The department intends to add WAC 388-78A-24641 Background checks—Process—Washington state name and date of birth background check, 388-78A-24642 Background checks—Process—National fingerprint background check, 388-78A-24681 Background checks—Employment—Provisional hire—Pending results of national fingerprint background check, and 388-78A-24701 Background checks—Employment—Nondisqualifying information.

The department intends to repeal WAC 388-78A-2463 Background check—National fingerprint checks—Who is required to have.

**Hearing Location(s):** Office Building 2, Lookout Room, DSHS Headquarters, 1115 Washington, Olympia, WA 98504 (public parking at 11th and Jefferson. A map is available at <http://www1.dshs.wa.gov/msa/rpau/RPAU-OB-2directions.html> or by calling (360) 664-6094), on September 4, 2012, at 10:00 a.m.

**Date of Intended Adoption:** Not earlier than September 5, 2012.

**Submit Written Comments to:** DSHS Rules Coordinator, P.O. Box 45850, Olympia, WA 98504-5850, 1115 Washington Street S.E., Olympia, WA 98504, e-mail DSHS RPAURulesCoordinator@dshs.wa.gov, fax (360) 664-6185, by 5 p.m. on September 4, 2012.

**Assistance for Persons with Disabilities:** Contact Jennisha Johnson, DSHS rules consultant, by August 25, 2012, TTY (360) 664-6178 or (360) 664-6094.

**Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules:** The department is amending these rules to comply with and be consistent with Initiative 1163, and ESHB 2314 Long-term care workers. In addition, the department is clarifying in rule the provision related to disqualifying drug crimes.

**Reasons Supporting Proposal:** See above.

**Statutory Authority for Adoption:** Chapter 18.20 RCW.

**Statute Being Implemented:** Chapter 18.20 RCW.

Rule is not necessitated by federal law, federal or state court decision.

**Name of Proponent:** Department of social and health services, governmental.

**Name of Agency Personnel Responsible for Drafting:** Judy Johnson, P.O. Box 45600, Olympia, WA 98504-5600, (360) 725-2591; **Implementation and Enforcement:** Lori Melchiori, P.O. Box 45600, Olympia, WA 98504-5600, (360) 725-2404.

No small business economic impact statement has been prepared under chapter 19.85 RCW. Under RCW 19.85.025 (3), a small business economic impact statement is not required for rules adopting or incorporating, by reference without material change, Washington state statutes or regulations.

A cost-benefit analysis is not required under RCW 34.05.328. Under RCW 34.05.328 (5)(b), a cost-benefit analysis is not required for rules adopting or incorporating, by reference without material change, Washington state statutes [statutes] or regulations.

July 13, 2012

Katherine I. Vasquez  
Rules Coordinator

**AMENDATORY SECTION** (Amending WSR 12-08-004, filed 3/22/12, effective 4/22/12)

**WAC 388-78A-2020 Definitions. "Abandonment"** means action or inaction by a person with a duty of care for a vulnerable adult that leaves the vulnerable person without the means or ability to obtain necessary food, clothing, shelter, or health care.

**"Abuse"** means the willful action or inaction that inflicts injury, unreasonable confinement, intimidation, or punishment on a resident. In instances of abuse of a resident who is unable to express or demonstrate physical harm, pain, or mental anguish, the abuse is presumed to cause physical harm, pain, or mental anguish. Abuse includes sexual abuse, mental abuse, physical abuse, and exploitation of a resident, which have the following meanings:

(1) **"Mental abuse"** means any willful action or inaction of mental or verbal abuse. Mental abuse includes, but is not limited to, coercion, harassment, inappropriately isolating a resident from family, friends, or regular activity, and verbal assault that includes ridiculing, intimidating, yelling, or swearing;

(2) **"Physical abuse"** means the willful action of inflicting bodily injury or physical mistreatment. Physical abuse includes, but is not limited to, striking with or without an object, slapping, pinching, choking, kicking, shoving, prodding, or the use of chemical restraints or physical restraints;

(3) **"Sexual abuse"** means any form of nonconsensual sexual contact, including, but not limited to, unwanted or inappropriate touching, rape, sodomy, sexual coercion, sexually explicit photographing, and sexual harassment. Sexual contact may include interactions that do not involve touching, including but not limited to sending a resident sexually explicit messages, or cuing or encouraging a resident to perform sexual acts. Sexual abuse includes any sexual contact between a staff person and a resident, whether or not it is consensual;

(4) **"Exploitation"** means an act of forcing, compelling, or exerting undue influence over a resident causing the resident to act in a way that is inconsistent with relevant past behavior, or causing the resident to perform services for the benefit of another.

**"Activities of daily living"** means the following tasks related to basic personal care: Bathing; toileting; dressing; personal hygiene; mobility; transferring; and eating.

**"Administrator"** means a boarding home administrator who must be in active administrative charge of the boarding home as required in this chapter. For training, certification, and background check purposes, the administrator or designee is presumed to provide direct care.

**"Adult day services"** means care and services provided to a nonresident individual by the boarding home on the boarding home premises, for a period of time not to exceed ten continuous hours, and does not involve an overnight stay.

**"Ambulatory"** means capable of walking or traversing a normal path to safety without the physical assistance of another individual:

(1) **"Nonambulatory"** means unable to walk or traverse a normal path to safety without the physical assistance of another individual;

(2) **"Semiambulatory"** means physically and mentally capable of traversing a normal path to safety with the use of mobility aids, but unable to ascend or descend stairs without the physical assistance of another individual.

**"Applicant"** means the person, as defined in this section, that has submitted, or is in the process of submitting, an application for a boarding home license.

**"Basic services"** means housekeeping services, meals, nutritious snacks, laundry, and activities.

**"Bathing fixture"** means a bathtub, shower or sit-down shower.

**"Bathroom"** means a room containing at least one bathing fixture.

**"Boarding home"** means any home or other institution, however named, which is advertised, announced, or maintained for the express or implied purpose of providing housing, basic services, and assuming general responsibility for the safety and well-being of the residents, and may also provide domiciliary care, consistent with this chapter to seven or more residents after July 1, 2000. However, a boarding home that is licensed for three to six residents prior to or on July 1, 2000, may maintain its boarding home license as long as it is continually licensed as a boarding home. "Boarding home" does not include facilities certified as group training homes pursuant to RCW 71A.22.040, nor any home, institution or section thereof which is otherwise licensed and regulated under the provisions of state law providing specifically for the licensing and regulation of such home, institution or section thereof. Nor shall it include any independent senior housing, independent living units in continuing care retirement communities, or other similar living situations including those subsidized by the Department of Housing and Urban Development. "Boarding home" may also include persons associated with the boarding home to carry out its duties under this chapter.

**"Building code"** means the building codes and standards adopted by the Washington state building code council.

**"Caregiver"** means anyone providing ~~((hands-on))~~ direct personal care to another person including, but not limited to: Cuing, reminding or supervision of residents, on behalf of a boarding home, except volunteers who are directly supervised. ~~((Direct supervision means oversight by a person who has demonstrated competency in the basic training (and specialty training if required), or who has been exempted from the basic training requirements, is on the premises, and is quickly and easily available to the caregiver.))~~

**"Construction review services"** means the office of construction review services within the Washington state department of health.

**"Continuing care contract"** means, as stated in RCW 70.38.025, a contract providing a person, for the duration of that person's life or for a term in excess of one year, shelter along with nursing, medical, health-related, or personal care services, which is conditioned upon the transfer of property, the payment of an entrance fee to the provider of such services, or the payment of periodic charges for the care and services involved. A continuing care contract is not excluded from this definition because the contract is mutually terminable or because shelter and services are not provided at the same location.

**"Continuing care retirement community"** means, as stated in RCW 70.38.025, an entity which provides shelter and services under continuing care contracts with its members and which sponsors or includes a health care facility or a health service.

**"Contractor"** means an agency or person who contracts with a licensee to provide resident care, services or equipment.

**"Crimes relating to financial exploitation"** means the same as "crimes relating to financial exploitation" as defined in RCW 43.43.830 or 43.43.842.

**"Department"** means the Washington state department of social and health services.

**"Dietitian"** means an individual certified under chapter 18.138 RCW.

**"Direct supervision"** means oversight by a person on behalf of the boarding home who has met training requirements, demonstrated competency in core areas, or has been fully exempted from the training requirements, is on the premises, and is quickly and easily available to the caregiver.

**"Document"** means to record, with signature, title, date and time:

(1) Information about medication administration, medication assistance or disposal, a nursing care procedure, accident, occurrence or change in resident condition that may affect the care or needs of a resident; and

(2) Processes, events or activities that are required by law, rule or policy.

**"Domiciliary care"** means:

(1) Assistance with activities of daily living provided by the boarding home either directly or indirectly; or

(2) Health support services, if provided directly or indirectly by the boarding home; or

(3) Intermittent nursing services, if provided directly or indirectly by the boarding home.

**"Enforcement remedy"** means one or more of the department's responses to a boarding home's noncompliance with chapter 18.20 RCW and this chapter, as authorized by RCW 18.20.190.

**"Financial exploitation"** means the illegal or improper use, control over, or withholding of the property, income, resources, or trust funds of the vulnerable adult by any person or entity for any person's or entity's profit or advantage other than for the vulnerable adult's profit or advantage. Some examples of financial exploitation are given in RCW 74.34.-020(6).

**"Food service worker"** means according to chapter 246-217 WAC an individual who works (or intends to work) with or without pay in a food service establishment and handles unwrapped or unpackaged food or who may contribute to the transmission of infectious diseases through the nature of his/her contact with food products and/or equipment and facilities. This does not include persons who simply assist residents with meals.

**"General responsibility for the safety and well-being of the resident"** means the provision of the following:

- (1) Prescribed general low sodium diets;
- (2) Prescribed general diabetic diets;
- (3) Prescribed mechanical soft foods;
- (4) Emergency assistance;
- (5) Monitoring of the resident;
- (6) Arranging health care appointments with outside health care providers and reminding residents of such appointments as necessary;
- (7) Coordinating health care services with outside health care providers consistent with WAC 388-78A-2350;
- (8) Assisting the resident to obtain and maintain glasses, hearing aids, dentures, canes, crutches, walkers, wheelchairs, and assistive communication devices;
- (9) Observation of the resident for changes in overall functioning;
- (10) Blood pressure checks as scheduled;
- (11) Responding appropriately when there are observable or reported changes in the resident's physical, mental, or emotional functioning; or
- (12) Medication assistance as permitted under RCW 69.41.085 and as described in RCW 69.41.010 and chapter 246-888 WAC.

**"Harm"** means a physical or mental or emotional injury or damage to a resident including those resulting from neglect or violations of a resident's rights.

**"Health support services"** means any of the following optional services:

- (1) Blood glucose testing;
- (2) Puree diets;
- (3) Calorie controlled diabetic diets;
- (4) Dementia care;
- (5) Mental health care; or
- (6) Developmental disabilities care.

**"Independent living unit"** means:

- (1) Independent senior housing;
- (2) Independent living unit in a continuing care retirement community or other similar living environments;
- (3) Boarding home unit where domiciliary services are not provided; or

(4) Boarding home unit where one or more items listed under "general responsibilities" are not provided.

**"Independent senior housing"** means an independent living unit occupied by an individual or individuals sixty or more years of age.

**"Infectious"** means capable of causing infection or disease by entrance of organisms into the body, which grow and multiply there, including, but not limited to, bacteria, viruses, protozoans, and fungi.

**"Licensee"** means the person, as defined in this chapter, to whom the department issues the boarding home license.

**"Licensed resident bed capacity"** means the resident occupancy level requested by the licensee and approved by the department. All residents receiving domiciliary care or the items or services listed under general responsibility for the safety and well-being of the resident as defined in this section count towards the licensed resident bed capacity. Adult day services clients do not count towards the licensed resident bed capacity.

**"Long-term care worker"**, as defined in RCW 74.39A.009, has the same meaning as the term "caregiver".

**"Majority owner"** means any person that owns:

- (1) More than fifty percent interest; or
- (2) If no one person owns more than fifty percent interest, the largest interest portion; or
- (3) If more than one person owns equal largest interest portions, then all persons owning those equal largest interest portions.

**"Manager"** means the person defined in this chapter, providing management services on behalf of the licensee.

**"Management agreement"** means a written, executed agreement between the licensee and the manager regarding the provision of certain services on behalf of the licensee.

**"Mandated reporter"**:

(1) Is an employee of the department, law enforcement officer, social worker, professional school personnel, individual provider, an employee of a facility, an operator of a facility, an employee of a social service, welfare, mental health, adult day health, adult day care, home health, home care, or hospice agency, county coroner or medical examiner, Christian Science practitioner, or health care provider subject to chapter 18.130 RCW; and

(2) For the purpose of the definition of mandated reporter, "Facility" means a residence licensed or required to be licensed under chapter 18.20 RCW (boarding homes), chapter 18.51 RCW (nursing homes), chapter 70.128 RCW (adult family homes), chapter 72.36 RCW (soldiers' homes), chapter 71A.20 RCW (residential habilitation centers), or any other facility licensed by the department.

**"Maximum facility capacity"** means the maximum number of individuals that the boarding home may serve at any one time, as determined by the department.

(1) The maximum facility capacity includes all residents and respite care residents and adult day services clients.

(2) The maximum facility capacity is equal to the lesser of:

(a) The sum of the number of approved bed spaces for all resident rooms (total number of approved bed spaces), except as specified in subsection (3); or

(b) Twice the seating capacity of the dining area(s) consistent with WAC 388-78A-2300 (1)(h); or

(c) The number of residents permitted by calculating the ratios of toilets, sinks, and bathing fixtures to residents consistent with WAC 388-78A-3030; or

(d) For boarding homes licensed on or before December 31, 1988, the total day room area in square feet divided by ten square feet, consistent with WAC 388-78A-3050; or

(e) For boarding homes licensed after December 31, 1988, the total day room area in square feet divided by twenty square feet, consistent with WAC 388-78A-3050.

(3) For the purposes of providing adult day services consistent with WAC 388-78A-2360, one additional adult day services client may be served, beyond the total number of approved bed spaces, for each additional sixty square feet of day room area greater than the area produced by multiplying the total number of approved bed spaces by twenty square feet, provided that:

(a) There is at least one toilet and one hand washing sink accessible to adult day services clients for every eight adult day services clients or fraction thereof;

(b) The total number of residents and adult day services clients does not exceed twice the seating capacity of the dining area(s) consistent with WAC 388-78A-2300 (1)(h); and

(c) The adult day services program area(s) and building do not exceed the occupancy load as determined by the local building official or state fire marshal.

**"Medication administration"** means the direct application of a prescribed medication whether by injection, inhalation, ingestion, or other means, to the body of the resident by an individual legally authorized to do so.

**"Medication assistance"** means assistance with self-administration of medication rendered by a nonpractitioner to a resident of a boarding home in accordance with chapter 246-888 WAC.

**"Medication organizer"** means a container with separate compartments for storing oral medications organized in daily doses.

**"Medication service"** means any service provided either directly or indirectly by a boarding home related to medication administration, medication administration provided through nurse delegation, medication assistance, or resident self-administration of medication.

**"Neglect"** means:

(1) A pattern of conduct or inaction resulting in the failure to provide the goods and services that maintain physical or mental health of a resident, or that fails to avoid or prevent physical or mental harm or pain to a resident; or

(2) An act or omission that demonstrates a serious disregard of consequences of such a magnitude as to constitute a clear and present danger to the resident's health, welfare, or safety, including but not limited to conduct prohibited under RCW 9A.42.100.

**"Nonresident individual"** means an individual who resides in independent senior housing, independent living units in continuing care retirement communities, or in other similar living environments or in an unlicensed room located within a boarding home. A nonresident individual may not receive from the boarding home:

(1) Domiciliary care directly or indirectly; or

(2) The items or services listed in the definition of "general responsibility for the safety and well-being of the resident", except as allowed under WAC 388-78A-2032 or when the person is receiving adult day services.

**"Nonpractitioner"** means any individual who is not a practitioner as defined in WAC 388-78A-2020 and chapter 69.41 RCW.

**"Nurse"** means an individual currently licensed under chapter 18.79 RCW as either a:

(1) **"Licensed practical nurse"** (LPN); or

(2) **"Registered nurse"** (RN).

**"Over-the-counter (OTC) medication"** means any medication that may be legally purchased without a prescriptive order, including, but not limited to, aspirin, antacids, vitamins, minerals, or herbal preparations.

**"Person"** means any individual, firm, partnership, corporation, company, association, joint stock association or any other legal or commercial entity.

**"Physician"** means an individual licensed under chapter 18.57 or 18.71 RCW.

**"Practitioner"** includes a licensed physician, osteopathic physician, podiatric physician, pharmacist, licensed practical nurse, registered nurse, advanced registered nurse practitioner, dentist, and physician assistant. Refer to chapter 69.41 RCW for a complete listing of practitioners.

**"Prescribed medication"** means any medication (legend drug, controlled substance, and over-the-counter) that is prescribed by an authorized practitioner.

**"Prescriber"** means a health care practitioner authorized by Washington state law to prescribe drugs.

**"Problem"** means a violation of any WAC or RCW applicable to the operation of a boarding home:

(1) **"Recurring problem"** means, for all purposes other than those described in RCW 18.20.400, that the department has cited the boarding home for a violation of WAC or RCW and the circumstances of (a) or (b) of this subsection are present:

(a) The department previously imposed an enforcement remedy for a violation of the same section of WAC or RCW for substantially the same problem following any type of inspection within the preceding thirty-six months; or

(b) The department previously cited a violation under the same section of WAC or RCW for substantially the same problem following any type of inspection on two occasions within the preceding thirty-six months.

(c) If the previous violation in (a) or (b) of this subsection was pursuant to WAC or RCW that has changed at the time of the new violation, citation to the equivalent current WAC or RCW section is sufficient.

(d) When there is a change in licensees between the first and the second or third citations, the new licensee must accept, and the department will consider, the prior licensee's compliance and enforcement record as part of the new licensee's compliance record at that boarding home if any person affiliated with the new licensee was affiliated with the prior licensee at the same boarding home. A person is considered affiliated with the licensee if the person is an applicant for the boarding home license, or is listed on the license application as a partner, officer, director, or majority owner of the applicant.

(2) **"Serious problem"** means:

- (a) There has been a violation of a WAC or RCW; and
- (b) Significant harm has actually occurred to a resident;

or

(c) It is likely that significant harm or death will occur to a resident.

(3) **"Uncorrected problem"** means the department has cited a violation of WAC or RCW following any type of inspection and the violation remains uncorrected at the time the department makes a subsequent inspection for the specific purpose of verifying whether such violation has been corrected. When a change in licensees occurs, the new licensee is responsible for correcting any remaining violations that may exist, including complying with any plan of correction in effect immediately prior to the change in licensees.

**"Prospective resident"** means an individual who is seeking admission to a licensed boarding home and who has completed and signed an application for admission, or such application for admission has been completed and signed in their behalf by their legal representative if any, and if not, then the designated representative if any.

**"Reasonable accommodation"** and **"reasonably accommodate"** have the meaning given in federal and state antidiscrimination laws and regulations which include, but are not limited to, the following:

(1) Reasonable accommodation means that the boarding home must:

(a) Not impose admission criteria that excludes individuals unless the criteria is necessary for the provision of boarding home services;

(b) Make reasonable modification to its policies, practices or procedures if the modifications are necessary to accommodate the needs of the resident;

(c) Provide additional aids and services to the resident.

(2) Reasonable accommodations are not required if:

(a) The resident or individual applying for admission presents a significant risk to the health or safety of others that cannot be eliminated by the reasonable accommodation;

(b) The reasonable accommodations would fundamentally alter the nature of the services provided by the boarding home; or

(c) The reasonable accommodations would cause an undue burden, meaning a significant financial or administrative burden.

**"RCW"** means Revised Code of Washington.

**"Records"** means:

(1) **"Active records"** means the current, relevant documentation regarding residents necessary to provide care and services to residents; or

(2) **"Inactive records"** means historical documentation regarding the provision of care and services to residents that is no longer relevant to the current delivery of services and has been thinned from the active record.

**"Resident"** means an individual who:

(1) Chooses to reside in a boarding home, including an individual receiving respite care;

(2) Is not related by blood or marriage to the operator of the boarding home;

(3) Receives basic services; and

(4) Receives one or more of the services listed in the definition of "general responsibility for the safety and well-being of the resident," and may receive domiciliary care or respite care provided directly, or indirectly, by the boarding home. A nonresident individual may receive services that are permitted under WAC 388-78A-2032.

**"Resident's representative"** means:

(1) The legal representative who is the person or persons identified in RCW 7.70.065 and who may act on behalf of the resident pursuant to the scope of their legal authority. The legal representative shall not be affiliated with the licensee, boarding home, or management company, unless the affiliated person is a family member of the resident; or

(2) If there is no legal representative, a person designated voluntarily by a competent resident in writing, to act in the resident's behalf concerning the care and services provided by the boarding home and to receive information from the boarding home if there is no legal representative. The resident's representative may not be affiliated with the licensee, boarding home, or management company, unless the affiliated person is a family member of the resident. The resident's representative under this subsection shall not have authority to act on behalf of the resident once the resident is no longer competent. The resident's competence shall be determined using the criteria in RCW 11.88.010 (1)(e).

**"Respite care"** means short-term care for any period in excess of twenty-four continuous hours for a resident to temporarily relieve the family or other caregiver of providing that care.

**"Restraint"** means any method or device used to prevent or limit free body movement, including, but not limited to:

(1) Confinement, unless agreed to as provided in WAC 388-78A-2370;

(2) **"Chemical restraint"** which means a psychopharmacologic drug that is used for discipline or convenience and not required to treat the resident's medical symptoms; and

(3) **"Physical restraint"** which means a manual method, obstacle, or physical or mechanical device, material, or equipment attached or adjacent to the resident's body that restricts freedom of movement or access to his or her body, is used for discipline or convenience, and not required to treat the resident's medical symptoms.

**"Room"** means a space set apart by floor to ceiling partitions on all sides with all openings provided with doors or windows.

(1) **"Sleeping room"** means a room where a resident is customarily expected to sleep and contains a resident's bed.

(2) **"Resident living room"** means the common space in a resident unit that is not a sleeping room, bathroom or closet.

**"Significant change"** means a change in the resident's physical, mental, or psychosocial status that causes either life-threatening conditions or clinical complications.

**"Special needs"** means a developmental disability, mental illness, or dementia.

**"Staff person"** means any boarding home employee or temporary employee or contractor, whether employed or retained by the licensee or any management company, or volunteer.

"**State fire marshal**" means the director of fire protection under the direction of the chief of the Washington state patrol.

"**Toilet**" means a disposal apparatus used for urination and defecation, fitted with a seat and flushing device.

"**Volunteer**" means an individual who interacts with residents without reimbursement.

"**Vulnerable adult**" includes a person:

- (1) Sixty years of age or older who has the functional, mental, or physical inability to care for himself or herself; or
- (2) Found incapacitated under chapter 11.88 RCW; or
- (3) Who has a developmental disability as defined under RCW 71A.10.020; or
- (4) Admitted to any facility, including any boarding home; or
- (5) Receiving services from home health, hospice, or home care agencies licensed or required to be licensed under chapter 70.127 RCW; or
- (6) Receiving services from an individual provider.
- (7) For the purposes of requesting and receiving background checks pursuant to RCW 43.43.832, it shall also include adults of any age who lack the functional, mental, or physical ability to care for themselves.

"**WAC**" means Washington Administrative Code.

"**Wellness program**" means an educational program provided by the boarding home. It is a proactive and preventative approach to assist residents and nonresident individuals in achieving optimal levels of health, social, and emotional functioning. A wellness program does not include medical care or interventions.

"**Willful**" means the deliberate, or nonaccidental, action or inaction by an alleged perpetrator that he/she knows or reasonably should have known could cause a negative outcome, including harm, injury, pain or anguish.

"**WISHA**" means the Washington Industrial Safety and Health Act, chapter 49.17 RCW administered by the Washington state department of labor and industries.

AMENDATORY SECTION (Amending WSR 10-16-085, filed 7/30/10, effective 1/1/11)

**WAC 388-78A-2461 Background checks—General.**

~~(1)~~ Background checks conducted by the department and required in this chapter include ~~((but are not limited to))~~:

~~((1))~~ ~~(a)~~ Washington state name and date of birth background checks ~~((including:~~

~~(a) Department and department of health findings)); and~~

~~(b) ((Criminal background check information from the Washington state patrol and the Washington state courts;~~

~~(2))~~ After ~~((January 1, 2012))~~ January 7, 2012, a national fingerprint~~((based))~~ background check in accordance with RCW ~~((74.39A.055))~~ 74.39A.056.

~~((3))~~ ~~(2)~~ Nothing in this chapter should be interpreted as requiring the employment of a person against the better judgment of the boarding home.

~~((4))~~ ~~(3)~~ In addition to chapter 18.20 RCW, these rules are authorized by RCW 43.20A.710, RCW 43.43.830 through 43.43.842 and RCW ~~((74.39A.050(8)))~~ 74.39A.051.

AMENDATORY SECTION (Amending WSR 10-16-085, filed 7/30/10, effective 1/1/11)

**WAC 388-78A-2462 Background checks—((Washington state—))Who is required to have.** (1) Applicants for a boarding home license, as defined in WAC 388-78A-2740, ~~((are required to have a Washington state))~~ must have the following background checks before licensure:

~~(a)~~ A Washington state name and date of birth background check; and

~~(b)~~ A national fingerprint background check.

~~(2)~~ The boarding home must ensure ~~((the following have Washington state))~~ that the administrator and all caregivers employed directly or by contract after January 7, 2012 have the following background checks:

~~(a)~~ A Washington state name and date of birth background check; and

~~(b)~~ A national fingerprint background check.

~~(3)~~ The boarding home must ensure that the following individuals have a Washington state name and date of birth background check:

~~(a)~~ ~~((Caregivers, including))~~ Volunteers who are not residents, and students who may have unsupervised access to residents;

~~(b)~~ ~~((Administrators;~~

~~(c)~~ Licensee;

~~(d))~~ Staff persons who are not caregivers or administrators;

~~((e))~~ ~~(c)~~ Managers who do not provide direct care to residents; and

~~((f))~~ ~~(d)~~ Contractors other than the administrator and caregivers who may have unsupervised access to residents.

AMENDATORY SECTION (Amending WSR 10-16-085, filed 7/30/10, effective 1/1/11)

**WAC 388-78A-2464 Background checks—Process—Background authorization form.** ~~((1))~~ Before the boarding home employs, directly or by contract, an administrator, staff person or caregiver, or accepts ~~((as a caregiver,))~~ any volunteer ~~((who is not a resident))~~, or student, the home must:

~~((a))~~ ~~(1)~~ Require the person to complete a DSHS background authorization form; and

~~((b))~~ ~~(2)~~ Send the completed form to the department's background check central unit ~~((BCCU))~~, including any additional documentation and information requested by the department.

~~((2))~~ ~~For purposes of this section, the administrator is presumed to provide direct care.)~~

NEW SECTION

**WAC 388-78A-24641 Background checks—Washington state name and date of birth background check.** If the results of the Washington state name and date of birth background check indicate the person has been convicted of a crime or has a finding that is disqualifying under WAC 388-78A-2470, the boarding home must:

(1) Not employ, directly or by contract, a caregiver, administrator, or staff person; and

(2) Not allow a volunteer or student to have unsupervised access to residents.

#### NEW SECTION

**WAC 388-78A-24642 Background checks—National fingerprint background check.** (1) Administrators and all caregivers who are hired after January 7, 2012 and are not disqualified by the Washington state name and date of birth background check, must complete a national fingerprint background check and follow department procedures.

(2) After receiving the results of the national fingerprint background check the boarding home must not employ, directly or by contract, an administrator or caregiver who has been convicted of a crime or has a finding that is disqualifying under WAC 388-78A-2470.

(3) The boarding home may accept a copy of the national fingerprint background check results letter and any additional information from the department's background check central unit from an individual who previously completed a national fingerprint check through the department's background check central unit, provided the national fingerprint background check was completed after January 7, 2012.

AMENDATORY SECTION (Amending WSR 10-16-085, filed 7/30/10, effective 1/1/11)

**WAC 388-78A-2465 Background check—Results—Inform.** (1) ~~((The boarding home must not allow the persons listed in WAC 388-78A-2462(2) to have unsupervised access to residents until the boarding home receives background check results from the department verifying that the person does not have any convictions, or findings described in WAC 388-78A-2470.~~

~~(2) If the background check results show that the person has a conviction or finding that is not disqualifying under WAC 388-78A-2470, then the boarding home must determine whether the person has the character, suitability and competence to work with vulnerable adults in long-term care.~~

~~(3)) After receiving the results of the Washington state name and date of birth background check, the boarding home must:~~

~~(a) Inform the person of the results of the background check;~~

~~(b) Inform the person that they may request a copy of the results of the background check. If requested, a copy of the background check results must be provided within ten days of the request; and~~

~~(c) Notify the department and other appropriate licensing or certification agency of any person resigning or terminated as a result of having a conviction record.~~

~~(2) After receiving the final result letter for the national fingerprint background check, the boarding home must inform the person:~~

~~(a) Of the national fingerprint background check final result letter;~~

~~(b) That they may request a copy of the national fingerprint check final result letter; and~~

~~(c) That any additional information requested can only be obtained from the department's background check central unit.~~

AMENDATORY SECTION (Amending WSR 10-16-085, filed 7/30/10, effective 1/1/11)

**WAC 388-78A-2466 Background checks—Washington state name and date of birth background check—Valid for two years—National fingerprint background check—Valid indefinitely.** (1) A Washington state name and date of birth background check is valid for two years from the initial date it is conducted. The boarding home must ensure:

~~((1)) (a) A new DSHS background authorization form is submitted to ((BCCU)) the department's background check central unit every two years for ((individuals listed in WAC 388-78A-2462)) all administrators, caregivers, staff persons, volunteers and students; and~~

~~((2)) (b) There is a valid Washington state name and date of birth background check for all ((individuals listed in WAC 388-78A-2462)) administrators, caregivers, staff persons, volunteers and students.~~

~~(2) A national fingerprint background check is valid for an indefinite period of time. The boarding home must ensure there is a valid national fingerprint background check completed for all administrators and caregivers hired after January 7, 2012. To be considered valid, the national fingerprint background check must be initiated and completed through the department's background check central unit after January 7, 2012.~~

AMENDATORY SECTION (Amending WSR 10-16-085, filed 7/30/10, effective 1/1/11)

**WAC 388-78A-2468 Background checks—Employment—Conditional hire—Pending results of Washington state name and date of birth background check.** The boarding home may conditionally hire an ~~((individual described in WAC 388-78A-2462,)) administrator, caregiver, or staff person~~ directly or by contract, pending the result of ~~((a)) the Washington state name and date of birth background check, provided that the boarding home:~~

~~(1) Submits the background authorization form for the ((individual)) person to the department no later than one business day after ((the individual)) he or she starts working;~~

~~(2) Requires the ((individual)) person to sign a disclosure statement((, and the individual denies having)) indicating if they have been convicted of a ((disqualifying)) crime or have a ((disqualifying)) finding that is disqualifying under WAC 388-78A-2470;~~

~~(3) Has received three positive references for the ((individual)) person;~~

~~(4) Does not allow the ((individual)) person to have unsupervised access to any resident;~~

~~(5) Ensures direct supervision((, of the individual, as defined in RCW 48.20.270)) of the administrator, all caregivers, and staff persons; and~~

~~(6) Ensures that the person is competent, and receives the necessary training to perform assigned tasks and meets the training requirements under chapter 388-112 WAC.~~

NEW SECTION

**WAC 388-78A-24681 Background checks—Employment—Provisional hire—Pending results of national fingerprint background check.** The boarding home may provisionally employ a caregiver and an administrator hired after January 7, 2012 for one hundred and twenty-days and allow the caregiver or administrator to have unsupervised access to residents when:

- (1) The caregiver or administrator is not disqualified based on the results of the Washington state name and date of birth background check; and
- (2) The results of the national fingerprint background check are pending.

AMENDATORY SECTION (Amending WSR 10-16-085, filed 7/30/10, effective 1/1/11)

**WAC 388-78A-2469 Background check—Disclosure statement.** (1) ~~((Prior to first starting his or her duties,))~~ The boarding home must require each ~~((individual described in WAC 388-78A-2462))~~ administrator, caregiver, staff person, volunteer and student, prior to starting his or her duties, to make disclosures~~((s))~~ of any crimes or findings consistent with RCW 43.43.834(2). The disclosures must be in writing and signed by the ~~((individual))~~ person under penalty of perjury.

(2) The department may require the boarding home or any ~~((individual described in WAC 388-78A-2462))~~ administrator, caregiver, staff person, volunteer or student to complete additional disclosure statements or background authorization forms if the department has reason to believe that offenses specified in WAC 388-78A-2470 have occurred since completion of the previous disclosure statement or background check.

AMENDATORY SECTION (Amending WSR 10-16-085, filed 7/30/10, effective 1/1/11)

**WAC 388-78A-2470 Background check—Employment-disqualifying information.** The boarding home must not employ or allow an ~~((individual described in WAC 388-78A-2462))~~ administrator, caregiver, or staff person, to have unsupervised access to residents, as defined in RCW 43.43.830, if the ~~((individual))~~ person has been:

- (1) Convicted of a "crime against children or other persons" as defined in RCW 43.43.830, unless the crime is simple assault, assault in the fourth degree, or prostitution and more than three years has passed since the last conviction;
- (2) Convicted of "crimes relating to financial exploitation" as defined in RCW 43.43.830, unless the crime is theft in the third degree, and more than three years have passed since conviction, or unless the crime is forgery or theft in the second degree and more than five years has passed since conviction;
- (3) Convicted of the manufacture, delivery, or possession with intent to manufacture or deliver drugs under one of the following laws:
  - (a) Violation of the Imitation Controlled Substances Act (VICSA);

(b) Violation of the Uniform Controlled Substances Act (VUCSA);

(c) Violation of the Uniform Legend Drug Act (VULDA); or

(d) Violation of the Uniform Precursor Drug Act (VUPDA);

(4) Convicted of sending or bringing into the state depictions of a minor engaged in sexually explicit conduct;

(5) Convicted of criminal mistreatment;

(6) Convicted of a crime in federal court or in any other state, and the department determines that the crime is equivalent to a crime described in this subsection;

(7) Found to have abused, neglected, financially exploited or abandoned a minor or vulnerable adult by a court of law or a disciplining authority, including the department of health;

(8) Found to have abused or neglected a child and that finding is:

(a) Listed on the department's background check central unit ~~((BCCU))~~ report; or

(b) Disclosed by the individual, except for finding made before December, 1998.

(9) Found to have abused, neglected, financially exploited or abandoned a vulnerable adult and that finding is:

(a) Listed on any registry, including the department's registry;

(b) Listed on the department's background check central unit ~~((BCCU))~~ report; or

(c) Disclosed by the individual, except for adult protective services findings made before October, 2003.

NEW SECTION

**WAC 388-78A-24701 Background checks—Employment—Nondisqualifying information.** (1) If any background check results show that an employee or prospective employee has a conviction or finding that is not automatically disqualifying under WAC 388-78A-2470, then the boarding home must:

(a) Determine whether the person has the character, competence and suitability to work with vulnerable adults in long-term care; and

(b) Document in writing the basis for making the decision, and make it available to the department upon request.

(2) Nothing in this chapter should be interpreted as requiring the employment of any person against the better judgment of the boarding home.

AMENDATORY SECTION (Amending WSR 12-01-003, filed 12/7/11, effective 1/7/12)

**WAC 388-78A-2474 Training and home care aide certification requirements.** (1) The boarding home must ensure staff persons hired before January 7, 2012 meet training requirements in effect on the date hired, including requirements in chapter 388-112 WAC.

(2) The boarding home must ensure all boarding home administrators, or their designees, and caregivers hired on or after January 7, 2012 meet the long-term care worker training requirements of chapter 388-112 WAC, including but not limited to:



- (a) Orientation and safety;
  - (b) Basic;
  - (c) Specialty for dementia, mental illness and/or developmental disabilities when serving residents with any of those primary special needs;
  - (d) Cardiopulmonary resuscitation and first aid; and
  - (e) Continuing education.
- (3) The boarding home must ensure that all staff receive appropriate training and orientation for their specific duties and responsibilities.
- (4) The boarding home must ensure all persons listed in subsection (2) of this section, obtain the home-care aide certification ((if required by chapter 246-980 WAC)).
- (5) Under RCW 18.88B.040 and chapter 246-980 WAC, certain persons including registered nurses, licensed practical nurses, certified nursing assistants, or persons who are in an approved certified nursing assistant program are exempt from long-term care worker training requirements. Continuing education requirements still apply as outlined in chapter 388-112 WAC.
- (6) For the purpose of this section, the term "caregiver" has the same meaning as the term "long-term care worker" as defined in RCW 74.39A.009.

**AMENDATORY SECTION** (Amending WSR 12-01-003, filed 12/7/11, effective 1/7/12)

**WAC 388-78A-2750 Application process.** To apply for a boarding home license, a person must:

- (1) Submit to the department a complete license application on forms designated by the department at least ninety days prior to the proposed effective date of the license;
- (2) Submit all relevant attachments specified in the application;
- (3) Submit department background authorization forms ((as required in WAC 388-78A-2462 and 388-78A-2463));
- (4) Sign the application;
- (5) Submit the license fee as specified in WAC 388-78A-3230;
- (6) Submit verification that construction plans have been approved by construction review services;
- (7) Submit a revised application before the license is issued if any information has changed since the initial license application was submitted;
- (8) Submit a revised application containing current information about the proposed licensee or any other persons named in the application, if a license application is pending for more than one year; and
- (9) If the licensee's agent prepares an application on the licensee's behalf, the licensee must review, sign and attest to the accuracy of the information contained in the application.
- (10) A license must be issued only to the person who applied for the license.
- (11) A license may not exceed twelve months in duration and expires on a date set by the department.

**REPEALER**

The following section of the Washington Administrative Code is repealed:

WAC 388-78A-2463	Background check— National fingerprint checks—Who is required to have.
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**WSR 12-16-023**  
**PROPOSED RULES**  
**DEPARTMENT OF**  
**SOCIAL AND HEALTH SERVICES**  
(Aging and Disability Services Administration)  
[Filed July 25, 2012, 7:55 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 11-24-093.

Title of Rule and Other Identifying Information: Chapter 388-513 WAC, Client not in own home, institutional medical and chapter 388-515 WAC, Alternative living, institutional medical.

Hearing Location(s): Office Building 2, Lookout Room, DSHS Headquarters, 1115 Washington, Olympia, WA 98504 (public parking at 11th and Jefferson. A map is available at <http://www1.dshs.wa.gov/msa/rpau/RPAU-OB-2directions.html>), on September 25, 2012, at 10:00 a.m.

Date of Intended Adoption: Not earlier than September 26, 2012.

Submit Written Comments to: DSHS Rules Coordinator, P.O. Box 45850, Olympia, WA 98504, e-mail DSHS RPAURulesCoordinator@dshs.wa.gov, fax (360) 664-6185, by 5 p.m. on September 25, 2012.

Assistance for Persons with Disabilities: Contact Jennisha Johnson, DSHS rules consultant, by September 4, 2012, TTY (360) 664-6178 or (360) 664-6094 or by e-mail at [jennisha.johnson@dshs.wa.gov](mailto:jennisha.johnson@dshs.wa.gov).

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules:

- Combine categorically needy (CN) and medically needy (MN) home and community-based waiver eligibility based on approval by Centers for Medicare and Medicaid Services.
- Update excess home equity standard and add formula for increase based on federal standards for January 2011, and ongoing.
- Update federal utility standard used in spousal deeming.
- Clarifying reasonable limits for qualifying medical deductions.
- Update links and references based on program changes made by economic services administration (ESA) and health care authority (HCA).
- Update links and references based on HB 1738 and HCA medicaid WACs recodified under Title 182 WAC.

- Correction of language allowing the federal poverty level (FPL) as a personal needs allowance (PNA) for a married individual receiving a home and community-based waiver, living at home but apart from the community spouse.
- Add language to the hardship waiver WAC to include transfers between registered domestic partners or legally married same sex couples up to the resource amount a married [couple] is allowed for transfer of resources.
- Updating references and adding clarifying language.

Reasons Supporting Proposal: See above.

Statutory Authority for Adoption: RCW 74.04.050, 74.04.057, 74.08.090, and 74.09.530.

Statute Being Implemented: RCW 74.04.050, 74.04.057, 74.08.090, and 74.09.530.

Rule is necessary because of federal law, C.F.R. Title 42: 435.725; 435.217; 435.733. Section 6014 of the Deficit Reduction Act of 2005.

Name of Proponent: Department of social and health services, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Lori Rolley, P.O. Box 45600, Olympia, WA 98504-5600, (360) 725-2271.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The preparation of a small business impact statement is not required, as no new costs will be imposed on small businesses or nonprofits as a result of this rule amendment.

A cost-benefit analysis is not required under RCW 34.05.328. [Rules] are exempt per RCW 34.05.328 (5)(b)(v), rules the content of which is explicitly and specifically dictated by statute.

July 19, 2012  
Katherine I. Vasquez  
Rules Coordinator

**Reviser's note:** The material contained in this filing exceeded the page-count limitations of WAC 1-21-040 for appearance in this issue of the Register. It will appear in the 12-17 issue of the Register.

**WSR 12-16-027**  
**PROPOSED RULES**  
**DEPARTMENT OF**  
**SOCIAL AND HEALTH SERVICES**  
(Aging and Disability Services Administration)  
[Filed July 25, 2012, 8:49 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-008.

Title of Rule and Other Identifying Information: The department is amending and adopting new rules within the following chapters to implement Initiative 1163, related to caregiver training requirements: Chapter 388-71 WAC, Home and community services and programs and chapter 388-112 WAC, Residential long-term care programs.

Hearing Location(s): Office Building 2, Lookout Room, DSHS Headquarters, 1115 Washington, Olympia, WA 98504 (public parking at 11th and Jefferson. A map is available at

<http://www1.dshs.wa.gov/msa/rpau/RPAU-OB-2directions.html>, on September 25, 2012, at 10:00 a.m.

Date of Intended Adoption: Not earlier than September 25, 2012.

Submit Written Comments to: DSHS Rules Coordinator, P.O. Box 45850, Olympia, WA 98504, e-mail DSHS RPAURulesCoordinator@dshs.wa.gov, fax (360) 664-6185, by 5 p.m. on September 25, 2012.

Assistance for Persons with Disabilities: Contact Jennisha Johnson, DSHS rules consultant, by September 4, 2012, TTY (360) 664-6178 or (360) 664-6094 or by e-mail at jennisha.johnson@dshs.wa.gov.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The purpose of the new language in chapters 388-71 and 388-112 WAC is to implement and clarify the training requirements and the criminal history background check requirements as directed in chapter 74.39A RCW and to revise the implementation effective dates as directed by Initiative 1163 and subsequently ESHB 2314. Chapter 74.39A WAC requires training for long-term care workers which includes seventy-five hours of entry-level training and also requires federal and state criminal history background checks for all long-term care workers. This law increases the basic training hour requirements for long-term care workers from thirty-two hours to seventy-five hours and increases their continuing education hour requirement from ten to twelve hours annually. ESHB 2314 also allows for certified home care aides to be delegated nursing tasks and this was also added to these WACs.

Reasons Supporting Proposal: Initiative 1163, enacted by the people in November 2011, requires implementation of these rules effective beginning January 7, 2012 (unless otherwise specified). Emergency rules were filed to implement the effective dates as WSR 12-05-100 and an emergency rule extension was filed as WSR 12-13-090 on June 19, 2012.

Statutory Authority for Adoption: RCW 74.08.090, 74.09.520.

Statute Being Implemented: Chapter 74.39A WAC [RCW].

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Department of social and health services, aging and disability services administration, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Martin Yates, P.O. Box 45600, Olympia, WA 98504-5600, (360) 725-2540; and Enforcement: DSHS.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The department is adopting amendments to chapters 388-71 and 388-112 WAC as expressly required by Initiative 1029 and subsequent Initiative 1163. These rules are consistent with the training and certification requirements set forth in those initiatives, therefore pursuant to RCW 19.85.025(3) and 34.05.328 (5)(b)(v), a small business economic impact statement is not required.

A cost-benefit analysis is not required under RCW 34.05.328. No cost-benefit analysis is required as this rule is

exempt per RCW 34.05.328 (5)(b)(v), rules the content of which is explicitly and specifically dictated by statute.

July 24, 2012  
Katherine I. Vasquez  
Rules Coordinator

**Reviser's note:** The material contained in this filing exceeded the page-count limitations of WAC 1-21-040 for appearance in this issue of the Register. It will appear in the 12-17 issue of the Register.

**WSR 12-16-030**  
**PROPOSED RULES**  
**TACOMA COMMUNITY COLLEGE**

[Filed July 25, 2012, 11:04 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-08-017.

Title of Rule and Other Identifying Information: Revise chapter 132V-116 WAC, Parking and traffic rules and regulations.

Hearing Location(s): Tacoma Community College, Building 12-120, 6501 South 19th Street, Tacoma, WA 98466, on October 17, 2012, at 4:00 p.m.

Date of Intended Adoption: October 17, 2012.

Submit Written Comments to: Will Howard, Tacoma Community College, 6501 South 19th Street, Tacoma, WA 98466, e-mail whoward@tacomacc.edu, fax (253) 566-5344, by October 3, 2012.

Assistance for Persons with Disabilities: Contact Cathie Bitz by October 10, 2012, cbitz@tacomacc.edu or (253) 566-5101.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Proposed changes to language in the parking and traffic rules and regulations update terminology and simplify and clarify other provisions of the chapter.

Statutory Authority for Adoption: RCW 28B.50.140 (10).

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Tacoma Community College, public.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Will Howard, Tacoma Community College, (253) 566-5344.

No small business economic impact statement has been prepared under chapter 19.85 RCW. Policies are relevant to Tacoma Community College students and visitors only.

A cost-benefit analysis is not required under RCW 34.05.328. Policies are relevant to Tacoma Community College students and visitors only.

July 25, 2012  
Mary A. Chikwinya  
Vice-President  
for Student Services

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-010 Authority.** Pursuant to the authority granted by RCW 28B.50.140(10), the board of trustees of Community College District 22 empowers the president of the college district to make on-campus parking available for visitors, faculty, students and staff at a fee established and approved by the board. The board further authorizes the president to formulate rules and regulations which ensure the safety of operators of vehicles and pedestrians using the college's streets, crosswalks and paths. ~~((Tacoma Community College Board Policy Handbook, Chapter VII, Section 7.1010; 5-76.))~~

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-030 Definitions.** For the purposes expressed in this document, the following definitions and terms shall apply:

(1) **College:** Tacoma Community College, or any additional community college hereafter established within Community College District 22, state of Washington, and those individuals responsible for its control and operation.

(2) **College community:** Trustees, students, employees, and guests on college-owned or controlled facilities.

(3) **College facilities:** Any or all property controlled or operated by the college.

(4) **Student:** Any person enrolled at the college.

(5) **Public safety ((and security)) officer:** An employee of the college accountable to the ~~((dean of))~~ vice-president for administrative services and responsible for campus security, safety, parking and traffic control.

(6) **Vehicle:** Any conveyance which can be legally operated on the streets and highways of the state of Washington, or whose primary purpose is recreational.

(7) **Visitors:** Persons who come upon the campus as guest, and persons who lawfully visit the campus for purposes which are in keeping with the college's role as an institution of higher learning in the state of Washington.

(8) **Permanent permit:** A permit which is valid for a college quarter, year or portion thereof.

(9) ~~((Temporary))~~ **Temporary permit:** A permit issued in lieu of a permanent permit for a period designated on the permit.

(10) ~~((Handicapped))~~ **Disabled permit:** A permit issued to a person with a physical, mental or sensory impairment.

(11) **College term:** Unless otherwise designated, the time period commencing with the summer quarter of the calendar year and extending through the subsequent fall, winter, and spring quarters. The summer quarter shall be considered the first quarter of the college year for parking and traffic control purposes.

(12) **Campus:** The grounds and buildings of the college.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-050 Parking and traffic responsibility.** The ~~((dean of))~~ vice-president for administrative services is responsible for parking and traffic management on campus. In general, the responsibility is delegated to the college's public safety ~~((and security))~~ supervisor, who is authorized to coordinate directly with the ~~((dean of))~~ vice-president for administrative services and others on campus as required by his/her duties.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-060 Permits required for motor vehicles on campus.** No student or employee shall stop, park, or leave a motor vehicle, whether attended or unattended, upon the campus without ~~((a))~~ first being issued a temporary, permanent, or disabled parking permit ~~((issued pursuant to WAC 132V-116-030 (8), (9) or (10)))~~, except that:

(1) Any student parking on campus will be given ten calendar days from the ~~((beginning of his/her enrollment))~~ first day of each quarter to obtain a permit from the office of public safety ~~((and security))~~.

(2) Any employee parking on campus must obtain a permit within ten calendar days after commencing employment with the college, and where applicable, will renew the permit within ten days after its expiration.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-070 Registration of vehicles.** All students and employees who operate motor vehicles, including motorcycles, on the campus will register them with the office of public safety ~~((and security))~~.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-080 Authorization for issuance of permits.** The office of public safety ~~((and security))~~ is authorized to issue parking permits to members of the college community pursuant to the following regulations:

(1) Students may be issued parking permits upon the registration of their vehicles with the office of public safety ~~((and security))~~ pursuant to this subsection (1).

(2) Employees may be issued parking permits pursuant to WAC 132V-116-060(2).

(3) Public safety ~~((and security))~~ officers may issue temporary parking permits when such permits are necessary to conduct the business or operation of the college.

(4) Public safety ~~((and security))~~ officers may issue temporary parking permits, not to exceed a period of five working days, for the use of an additional ~~((a))~~ vehicle whenever the registered vehicle is being repaired.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-100 Valid permits.** The following are valid permits when they are properly displayed and unexpired:

(1) A permanent permit.

(2) A temporary permit.

(3) A ~~((handicapped))~~ disabled permit.

(4) Carpool permit issued by the city of Tacoma, transit agencies.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-110 Display of permit.** (1) A permanent parking permit shall be affixed to ~~((right rear bumper area of the vehicle. A temporary permit shall be placed within the vehicle on the dashboard where it can be plainly observed))~~ the lower left inside corner of the vehicle windshield.

(2) A temporary permit shall be placed within the vehicle on the left side of the dashboard where it can be plainly observed.

(3) Permits for motorcycles shall be ~~((affixed to the vehicles in visible locations))~~ retained by the motorcycle rider who must provide the permit upon request. Permits should not be affixed to motorcycles.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-120 Transfer of permits.** A parking permit is not transferable from person to person. ~~((If a vehicle is sold or traded, the permit holder may obtain a new permit from the office of safety and security.))~~ A permit is transferable from vehicle to vehicle as long as the vehicles are registered with the office of public safety.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-160 Designation of parking spaces.** Parking spaces shall be designated for the following categories:

(1) Students;

(2) Employees;

(3) ~~((Handicapped))~~ Disabled persons;

(4) Visitors;

(5) Other business purposes;

(6) Carpool.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-170 Parking within designated spaces.** All vehicles must be parked in designated spaces only.

(1) No vehicle may be parked in any undesignated area except the following:

(a) Approved maintenance vehicles.

- (b) Emergency vehicles.
- (c) Approved construction vehicles.
- (d) Approved delivery vehicles.

(2) Unless prior arrangements have been made, no vehicle shall be parked on campus for a period in excess of ~~((seventy-two))~~ forty-eight hours. Vehicles which have been parked in excess of ~~((seventy-two))~~ forty-eight hours may be impounded and stored at the expense of the owner.

(3) No vehicle shall be parked so as to occupy any portion of more than one parking space. Vehicles may be towed and impounded for this violation.

(4) Parking in designated areas will be strictly enforced between the hours of 7:00 a.m. and ~~((7:00))~~ 8:00 p.m., Monday through Friday.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-180 Regulatory signs and directions.**

The office of public safety ~~((and security))~~ is authorized to erect signs, barricades, and other structures and to paint marks or other directions upon the entry ways, streets, and parking areas of the campus. Vehicle operators shall observe and obey all regulatory signs and directions and shall comply with traffic control.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-200 Movement of vehicles.** Except as authorized by the office of public safety ~~((and security))~~, movement of motor vehicle traffic is limited to entrances, drives and parking areas.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-210 Operation of bicycles.** Bicycle and nonengine cycle operators shall observe the following rules and regulations:

(1) ~~((Bicycles and other nonengine cycles))~~ They shall be operated in a responsible manner.

(2) ~~((No bicycle))~~ They shall not be parked inside a building ~~((nor blocking))~~ or block a building entrance.

(3) ~~((Bicycles))~~ They should be secured to racks as provided so as not to endanger pedestrian traffic.

(4) ~~((Bicycle))~~ Operators will observe traffic rules and regulations when operating on entrances, drives, and parking areas.

(5) Bicycles and nonengine cycles that have been parked in excess of forty-eight hours may be turned over to lost and found for thirty days. If unclaimed they will be donated to charity.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-220 Report of accident.** The operator of any vehicle involved in an accident on campus resulting in injury to or death of any person or total or claimed damage to either or both vehicles of any amount shall within twenty-

four hours report such accident to the college's office of public safety ~~((and security))~~. This does not relieve any person so involved in an accident from his responsibility to file a state of Washington motor vehicle accident report within twenty-four hours after such accident.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-230 Special traffic and parking regulations and restrictions authorized.** Upon special occasions causing additional and/or heavy traffic and during emergencies, the college's public safety ~~((and security))~~ supervisor is authorized to impose special traffic and parking regulations and restrictions for the achievement of the objectives specified in WAC 132V-116-020.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-240 Enforcement.** (1) All parking and traffic rules and regulations shall be enforced throughout the calendar year.

(2) The ~~((dean of))~~ vice-president for administrative services or ~~((his))~~ designee shall be responsible for the enforcement of the rules and regulations contained in this document.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-250 Issuance of traffic citations.** Public safety ~~((and security))~~ officers or their subordinates will issue citations for any violations of these rules and regulations. Such citations will include the date, approximate time, vehicle identification number, infraction, name of the officer and schedule of fines. The traffic citations may be served in person, via mail, or by attaching a copy outside the vehicle.

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-260 Fines and penalties.** Fines and penalties may be assessed for all violations of these rules and regulations.

(1) The ~~((dean of))~~ vice-president for administrative services, or ~~((in his absence the president or the acting president))~~ designee, is the only college employee authorized to impound vehicles parked on college property.

(a) Vehicles wrongfully parked in designated areas or parked in undesignated areas are subject to ~~((impoundment))~~ impound.

(b) ~~((Impoundment))~~ Impound and storage expenses shall be the responsibility of the owner of the impounded vehicle.

(c) The college shall not be liable for loss or damage of any kind resulting from such ~~((impoundment))~~ impound and storage.

(d) ~~((Impoundment))~~ Impound of a vehicle does not remove the obligation for any fines associated with the citation.

(2) An accumulation of traffic citations by a student in excess of thirty dollars or the failure by a student to satisfy any traffic fines, regardless of the amount thereof, by the end of the academic quarter may result in disciplinary action initiated by the ~~((dean of))~~ vice-president for student services against the student.

(3) The ~~((dean of))~~ vice-president for administrative services shall direct all citations to the office of business services for collection or paid at the cashier's station.

(4) A schedule of fines shall be set by the board of trustees(~~(:~~

~~(5) The following schedule of fines is adopted by the board and shall be published on the traffic citation forms.~~

~~(a) Vehicle parked in a manner so as to obstruct traffic; \$3.00~~

~~(b) Occupying more than one space; \$2.00~~

~~(c) Occupying space not designated for parking; \$2.00~~

~~(d) Illegal parking (parked in area not authorized by permit; \$2.00~~

~~(e) Failure to yield right of way; \$3.00~~

~~(f) Parking in fire lane; \$3.00~~

~~(g) Speeding; \$5.00~~

~~(h) Failure to stop for stop sign/signal; \$5.00~~

~~(i) Reckless/negligent driving; \$5.00~~

~~(j) No parking permit displayed; \$5.00~~

~~(6) If the fine is paid within 24 hours of the issuance of the citation, the fine will be reduced to \$1.00, except for moving violations)) and published on the public safety web site and on the portal.~~

~~((7)) (5) In the event a student fails or refuses to pay a fine, the following may be initiated by the ~~((dean of))~~ vice-president for student services:~~

~~(a) Student may not be eligible to register for any more courses until all fines are paid;~~

~~(b) Student may not be able to obtain a transcript of his grades or credits until all fines are paid;~~

~~(c) Student may not receive a degree until all fines are paid;~~

~~(d) Student may be denied future parking privileges;~~

~~(e) Student's vehicle may be impounded.~~

~~((8)) (6) Upon failure of an employee or student to appeal ~~((from))~~ any fine or penalty as set forth herein, or upon a decision by the ~~((dean of))~~ vice-president for administrative services affirming the employee's or student's debt to the college, whichever is applicable, the amount of the fine will be set-off against and deducted from any present or future salary or other financial obligation owed to the employee or student by the college.~~

AMENDATORY SECTION (Amending Order 77-2, filed 6/3/77)

**WAC 132V-116-270 Appeal of fines and penalties.**

Any fines and penalties levied against a violator of the rules and regulations set forth herein must be appealed in writing, stating fully all grounds for appeal, within five days from the date of the citation, to the public safety ~~((and security))~~ supervisor who will:

(1) After notice to the appealing party, confer with said party and review the appeal to determine whether a satisfac-

tory solution can be reached without further administrative action. The public safety ~~((and security))~~ supervisor will advise the appellant, as soon as practicable, of his proposed decision.

(2) If the appellant is dissatisfied with the public safety ~~((and security))~~ supervisor's proposed decision, the appeal will be forwarded to the ~~((dean of administrative services who will meet with all parties, review the circumstances of the appeal and render a decision within ten days))~~ parking appeals committee. The decision of the parking appeals committee will be final.

**WSR 12-16-041**

**PROPOSED RULES**

**DEPARTMENT OF ECOLOGY**

[Order 07-17—Filed July 27, 2012, 9:32 a.m.]

Continuance of WSR 12-11-020.

Preproposal statement of inquiry was filed as WSR 07-22-116.

Title of Rule and Other Identifying Information: Chapter 173-518 WAC, Water resources management program for the Dungeness portion of the Elwha-Dungeness water resource inventory area (WRIA 18).

Hearing Location(s): The original proposed rule-making notice (CR-102) stated that the hearing for the proposed rule would take place on June 28, 2012, at Guy Cole Center, Carrie Blake Park, 202 North Blake Avenue, Sequim, WA, at 5:00 p.m. - open house and 6:00 p.m. - presentation with question and answer followed by public hearing.

The hearing was commenced on that date and at that location, but the hearing was continued and changed to a new location. The new location was Sequim Community Church, 950 North Fifth Avenue, Sequim, WA 98382. The time was also extended to 3:30 p.m. - open house and 6:00 p.m. - presentation with question and answer followed by public hearing.

Date of Intended Adoption: August 31, 2012.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The purpose of this notice is to record the change in location and time associated with the public hearing that ecology held on June 28, 2012. Ecology convened the hearing in the original location, Guy Cole Center, Carrie Blake Park, 202 North Blake Avenue, Sequim, WA, and announced on the record that the hearing was being continued so that it could take place at the new location at a later time that day. Subsequently, the hearing was reconvened at the new location.

Reasons Supporting Proposal: Ecology changed the location to accommodate a larger number of people. The hours for the open house were extended to allow property owners to get site-specific information on how the proposed water management rule may affect their water use.

July 26, 2012

Polly Zehm

Deputy Director

**WSR 12-16-047**  
**PROPOSED RULES**  
**HEALTH CARE AUTHORITY**

(Medicaid Program)

[Filed July 27, 2012, 10:44 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-09-091.

Title of Rule and Other Identifying Information: WAC 182-507-0130 Refugee medical assistance (RMA) and 182-507-0135 Immigration status requirement for refugee assistance.

Hearing Location(s): Health Care Authority (HCA), Cherry Street Plaza Building, Conference Room, 626 8th Avenue, Olympia, WA 98504 (metered public parking is available street side around building. A map is available at <http://maa.dshs.wa.gov/pdf/CherryStreetDirectionsNMap.pdf> or directions can be obtained by calling (360) 725-1000), on September 4, 2012, at 10:00 a.m.

Date of Intended Adoption: Not sooner than September 5, 2012.

Submit Written Comments to: HCA Rules Coordinator, P.O. Box 45504, Olympia, WA 98504-5504, delivery 626 8th Avenue, Olympia, WA 98504, e-mail [arc@hca.wa.gov](mailto:arc@hca.wa.gov), fax (360) 586-9727, by September 4, 2012.

Assistance for Persons with Disabilities: Contact Kelly Richters by August 27, 2012, TTY (800) 848-5429 or (360) 725-1307 or e-mail [kelly.richters@hca.wa.gov](mailto:kelly.richters@hca.wa.gov).

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: With passage of 2E2SHB 1738, the responsibility for RMA was transferred to HCA. HCA is recodifying the rules for RMA under Title 182 WAC.

Reasons Supporting Proposal: See Purpose above.

Statutory Authority for Adoption: RCW 41.05.021.

Statute Being Implemented: Chapter 15, Laws of 2011 (2E2SHB 1738).

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: HCA, governmental.

Name of Agency Personnel Responsible for Drafting: Kevin Sullivan, P.O. Box 45504, Olympia, WA 98504-5504, (360) 725-1344; Implementation and Enforcement: Dody McAlpine, P.O. Box 45534, Olympia, WA 98504-5534, (360) 725-9964.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The joint administrative rules review committee has not requested the filing of a small business economic impact statement, and these rules do not impose a disproportionate cost impact on small businesses.

A cost-benefit analysis is not required under RCW 34.05.328. RCW 34.05.328 does not apply to HCA rules unless requested by the joint administrative rules [review] committee or applied voluntarily.

July 27, 2012  
 Kevin M. Sullivan  
 Rules Coordinator

AMENDATORY SECTION (Amending WSR 12-02-034, filed 12/29/11, effective 1/1/12)

**WAC 182-507-0130 Refugee medical assistance (RMA).** ~~((1) Who can apply for refugee medical assistance?~~

~~Anyone can apply for refugee medical assistance (RMA) and have eligibility determined by the department of social and health services (DSHS).~~

~~(2) Who is eligible for refugee medical assistance?~~

~~(a) You are eligible for RMA if you meet all of the following conditions:~~

~~(i) Immigration status requirements of WAC 388-466-0005;~~

~~(ii) Income and resource requirements of WAC 388-466-0140;~~

~~(iii) Monthly income standards up to two hundred percent of the federal poverty level (FPL). Spenddown is available for applicants whose income exceeds two hundred percent of FPL (see WAC 388-519-0110); and~~

~~(iv) Provide the name of the voluntary agency (VOLAG) which helped bring you to this country, so that DSHS can promptly notify the agency (or sponsor) about your application for RMA.~~

~~(b) You are eligible for RMA if you:~~

~~(i) Receive refugee cash assistance (RCA) and are not eligible for medicaid or children's healthcare programs as described in WAC 388-505-0210; or~~

~~(ii) Choose not to apply for or receive RCA and are not eligible for medicaid or children's healthcare programs as described in WAC 388-505-0210, but still meet RMA eligibility requirements.~~

~~(3) Who is not eligible for refugee medical assistance?~~

~~You are not eligible to receive RMA if you are:~~

~~(a) Already eligible for medicaid or children's healthcare programs as described in WAC 388-505-0210;~~

~~(b) A full time student in an institution of higher education unless the educational activity is part of a department-approved individual responsibility plan (IRP);~~

~~(c) A nonrefugee spouse of a refugee.~~

~~(4) If I have already received a cash assistance grant from voluntary agency (VOLAG), will it affect my eligibility for RMA?~~

~~No. A cash assistance payment provided to you by your VOLAG is not counted in determining eligibility for RMA.~~

~~(5) If I get a job after I have applied but before I have been approved for RMA, will my new income be counted in determining my eligibility?~~

~~No. Your RMA eligibility is determined on the basis of your income and resources on the date of the application.~~

~~(6) Will my sponsor's income and resources be considered in determining my eligibility for RMA?~~

~~Your sponsor's income and resources are not considered in determining your eligibility for RMA unless your sponsor is a member of your assistance unit.~~

~~(7) How do I find out if I am eligible for RMA?~~

~~DSHS will send you a letter in both English and your primary language informing you about your eligibility. DSHS will also let you know in writing every time there are any changes or actions taken on your case.~~

**~~(8) Will RMA cover my medical expenses that occurred after I arrived in the U.S. but before I applied for RMA?~~**

You may be eligible for RMA coverage of your medical expenses for three months prior to the first day of the month of your application. Eligibility determination will be made according to medicaid rules.

**~~(9) If I am a victim of human trafficking, what kind of documentation do I need to provide to be eligible for RMA?~~**

You are eligible for RMA to the same extent as a refugee, if you are:

(a) An adult victim, eighteen years of age or older, and you provide the original certification letter from the U.S. Department of Health and Human Services (DHHS). You also have to meet eligibility requirements in subsections (2)(a) and (b) of this section. You do not have to provide any other documentation of your immigration status. Your entry date will be the date on your certification letter.

(b) A child victim under the age of eighteen, in which case you do not need to be certified. DHHS issues a special letter for children. Children also have to meet income eligibility requirements.

(c) A family member of a certified victim of human trafficking, you have a T-2, T-3, T-4, or T-5 Visa (Derivative T-Visas), and you meet eligibility requirements in subsections (2)(a) and (b) of this section.

**~~(10) If I am an asylee, what date will be used as an entry date?~~**

If you are an asylee, your entry date will be the date that your asylum status is granted. For example, if you entered the United States on December 1, 1999 as a tourist, then applied for asylum on April 1, 2000, interviewed with the asylum office on July 1, 2000 and granted asylum on September 1, 2000, your date of entry is September 1, 2000. On September 1, 2000 you may be eligible for refugee medical assistance.

**~~(11) When does my RMA end?~~**

Your refugee medical assistance will end on the last day of the eighth month from the month of your entry into the United States. Start counting the eight months with the first day of the month of your entry into the U.S. For example, if you entered the U.S. on May 28, 2000, your last month is December 2000.

**~~(12) What happens if my earned income goes above the income standards?~~**

(a) If you are getting RMA, your medical eligibility will not be affected by the amount of your earnings;

(b) If you were getting medicaid and it was terminated because of your earnings, we will transfer you to RMA for the rest of your RMA eligibility period. You will not need to apply.

**~~(13) Will my spouse also be eligible for RMA, if he/she arrives into the U.S. after me?~~**

When your spouse arrives in the U.S., we will determine his/her eligibility for medicaid and other medical programs.

(a) If your spouse is eligible for RCA, he/she is automatically eligible for RMA.

(b) If your spouse is not eligible for RCA because your household's countable income exceeds the TANF income and resource standards described in chapter 388-450 and 388-470

WAC, he/she is eligible for RMA as long as the countable household income is below two hundred percent of federal poverty level (FPL) per WAC 388-466-0140(2).

(e) If your spouse is approved for RMA, he/she would have a maximum of eight months of RMA starting on the first day of the month of his/her arrival.

**~~(14) What do I do if I disagree with a decision or action that has been taken by DSHS on my case?~~**

If you disagree with the decision or action taken on your case by department you have the right to request a review of your case or request an administrative hearing (see WAC 388-02-0090). Your request must be made within ninety days of the date of the decision or action.

**~~(15) What happens to my medical coverage after my eligibility period is over?~~**

We will determine your eligibility for other medical programs. You may have to complete an application for another program.) (1) An individual is eligible for refugee medical assistance (RMA) if the following conditions are met. The individual:

(a) Meets immigration status requirements of WAC 182-507-0135;

(b) Has countable resources below one thousand dollars on the date of application;

(c) Has countable income equal to or below two hundred percent of the federal poverty level (FPL) on the date of application. The following income is not considered when determining eligibility for RMA:

(i) Resettlement cash payments made by the voluntary agency (VOLAG);

(ii) Income of a sponsor is not counted unless the sponsor is also part of the individual's assistance unit; and

(iii) Income received after the date of application.

(d) Provides the name of the VOLAG which helped bring the individual to the United States so that the department of social and health services (DSHS) can promptly notify the VOLAG (or sponsor) about the medical application.

(2) An individual who receives refugee cash assistance (RCA) is eligible for RMA as long as the individual is not otherwise eligible for medicaid or a children's health care program as described in WAC 182-505-0210. An individual does not have to apply for or receive RCA in order to qualify for RMA.

(3) An individual is not eligible to receive RMA if the individual is:

(a) Already eligible for medicaid or a children's health care program as described in WAC 182-505-0210;

(b) A full-time student in an institution of higher education unless the educational activity is part of a DSHS-approved individual responsibility plan (IRP); or

(c) A nonrefugee spouse of a refugee.

(4) If approved for RMA, the agency or its designee issues an approval letter in both English and the individual's primary language. The agency or its designee also sends a notice every time there are any changes or actions taken which affect the individual's eligibility for RMA.

(5) An individual may be eligible for RMA coverage of medical expenses incurred during the three months prior to



the first day of the month of the application. Eligibility determination will be made according to medicaid rules.

(6) A victim of human trafficking must provide the following documentation and meet the eligibility requirements in subsections (1) and (2) of this section to be eligible for RMA:

(a) Adults, eighteen years of age or older, must provide the original certification letter from the United States Department of Health and Human Services (DHHS). No other documentation is needed. The eight-month eligibility period will be determined based on the entry date on the individual's certification letter:

(b) A child victim under the age of eighteen does not need to be certified. DHHS issues a special letter for children. Children also have to meet income eligibility requirements:

(c) A family member of a certified victim of human trafficking must have a T-2, T-3, T-4, or T-5 visa (derivative T-Visas), and the family member must meet eligibility requirements in subsections (1) and (2) of this section.

(7) The entry date for an asylee is the date that the individual's asylum status is granted. For example, an individual entered the United States on December 1, 1999, as a tourist, then applied for asylum on April 1, 2000, interviewed with the asylum office on July 1, 2000, and was granted asylum on September 1, 2000. The date of entry is September 1, 2000, and that is the date used to establish eligibility for RMA.

(8) RMA ends on the last day of the eighth month from the month the individual entered the United States. For example, an individual who entered the United States on May 28, 2011, is eligible through the end of December 2011.

(9) An individual approved for RMA is continuously eligible through the end of the eighth month after the individual's entry to the United States, regardless of an increase in income.

(10) The agency, or its designee, determines eligibility for medicaid and other medical programs for an individual's spouse when the spouse arrives in the United States. If the spouse is not eligible for medicaid due to the countable income of the individual, the spouse is still eligible for RMA for eight months following the spouse's entry into the United States.

(11) An individual who disagrees with a decision or action taken on the case by the agency, or its designee, has the right to request a review of the case action(s) or request an administrative hearing (see chapter 182-526 WAC). The request must be received by the agency, or its designee, within ninety days of the date of the decision or action.

## NEW SECTION

**WAC 182-507-0135 Immigration status requirement for refugee medical assistance (RMA).** (1) An individual is eligible for refugee medical assistance (RMA) if the individual provides documentation issued by the United States Citizenship and Immigration Services (USCIS) to show that the individual is:

(a) Admitted as a refugee under section 207 of the Immigration and Nationalities Act (INA);

(b) Paroled into the United States as a refugee or asylee under section 212 (d)(5) of the INA;

(c) Granted conditional entry under section 203 (a)(7) of the INA;

(d) Granted asylum under section 208 of the INA;

(e) Admitted as an Amerasian immigrant from Vietnam through the orderly departure program, under section 584 of the Foreign Operations Appropriations Act, incorporated in the FY88 continuing resolution P.L. 100-212;

(f) A Cuban-Haitian entrant who was admitted as a public interest parolee under section 212 (d)(5) of the INA;

(g) Certified as a victim of human trafficking by the federal Office of Refugee Resettlement (ORR);

(h) An eligible family member of a victim of human trafficking certified by ORR who has a T-2, T-3, T-4, or T-5 visa; or

(i) Admitted as special immigrant from Iraq or Afghanistan under section 101 (a)(27) of the INA.

(2) A permanent resident alien meets the immigration status requirements for RCA and RMA if the individual was previously in one of the statuses described in subsection (1)(a) through (g) of this section.

## **WSR 12-16-049**

### **PROPOSED RULES**

### **HEALTH CARE AUTHORITY**

(Medicaid Program)

[Filed July 27, 2012, 12:43 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-05-117.

Title of Rule and Other Identifying Information: WAC 182-512-0150 SSI-related medical—Medically needy (MN) program medical eligibility, 182-512-0700 SSI-related medical—Income eligibility, 182-512-0900 SSI-related medical—Deeming and allocation of income, 182-512-0920 SSI-related medical—Deeming/allocation of income from nonapplying spouse, 182-512-0940 SSI-related medical—Deeming income from an ineligible parent to a child applying for SSI-related medical, 182-519-0050 Monthly income and countable resource standards for medically needy (MN), 388-512-1210 Program description, 388-519-0100 Eligibility for the medically needy program, and 388-519-0110 Spenddown of excess income for the medically needy (MN) program.

Hearing Location(s): Health Care Authority (HCA), Cherry Street Plaza Building, Sue Crystal Conference Room 106A, 626 8th Avenue, Olympia, WA 98504 (metered public parking is available street side around building. A map is available at <http://maa.dshs.wa.gov/pdf/CherryStreetDirectionsNMap.pdf> or directions can be obtained by calling (360) 725-1000, on September 4, 2012, at 10:00 a.m.

Date of Intended Adoption: Not sooner than September 5, 2012.

Submit Written Comments to: HCA Rules Coordinator, P.O. Box 45504, Olympia, WA 98504-5504, delivery 626 8th Avenue, Olympia, WA 98504, e-mail [arc@hca.wa.gov](mailto:arc@hca.wa.gov), fax (360) 586-9727, by September 4, 2012.

Assistance for Persons with Disabilities: Contact Kelly Richters by August 27, 2012, TTY (800) 848-5429 or (360) 725-1307 or e-mail [kelly.richters@hca.wa.gov](mailto:kelly.richters@hca.wa.gov).

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The web link cited in WAC 182-519-0050 which connects the reader to the medically needy income level (MNIL) standards is obsolete. The HCA plans to replace the web link with a chart of the MNIL and reference to the annually-updated federal benefit rate.

Reasons Supporting Proposal: See Purpose above.

Statutory Authority for Adoption: RCW 41.05.021.

Statute Being Implemented: RCW 41.05.021.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: HCA, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Catherine Fisher, P.O. Box 45534, Olympia, WA 98504-5534, (360) 725-1357.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The joint administrative rules review committee has not requested the filing of a small business economic impact statement, and these rules do not impose a disproportionate cost impact on small businesses.

A cost-benefit analysis is not required under RCW 34.05.328. RCW 34.05.328 does not apply to HCA rules unless requested by the joint administrative rules [review] committee or applied voluntarily.

July 27, 2012  
Kevin M. Sullivan  
Rules Coordinator

AMENDATORY SECTION (Amending WSR 11-24-018, filed 11/29/11, effective 12/1/11)

**WAC 182-512-0150 SSI-related medical—Medically needy (MN) medical eligibility.** (1) Medically needy (MN) medical coverage is available for any of the following:

(a) ~~((A person))~~ An individual who is SSI-related and not eligible for CN medical coverage because ~~((they have))~~ the individual has countable income that is above the CN income standard (or for long-term care (LTC) clients, above the special income limit (SIL)):

(i) ~~((Their))~~ The individual's countable income is at or below MN standards, leaving ~~((them with))~~ no spenddown requirement; or

(ii) ~~((Their))~~ The individual's countable income is above MN standards requiring ~~((them))~~ the individual to spenddown their excess income (see subsection (4) ~~((below))~~ of this section). See WAC ~~((388-475-0500))~~ 182-512-0500 through ~~((388-475-0800))~~ 182-512-0800 for rules on determining countable income, and WAC ~~((388-478-0080))~~ 182-519-0050 for program standards or chapter 388-513 WAC for institutional standards.

(b) An SSI-related ineligible spouse of an SSI recipient;

(c) An ~~((adult))~~ individual who meets SSI program criteria but is not eligible for the SSI cash grant due to immigration status or sponsor deeming. See WAC 388-424-0010 for limits on eligibility for aliens;

(d) ~~((A person))~~ An individual who meets the MN LTC services requirements of chapter 388-513 WAC ~~((and WAC 388-515-1540))~~;

(e) ~~((A person))~~ An individual who lives in an alternate living facility and meets the requirements of WAC 388-513-1305; or

(f) ~~((A person))~~ An individual who meets resource requirements as described in chapter ~~((388-475))~~ 182-512 WAC, elects and is certified for hospice services per chapter ~~((388-554))~~ 182-551 WAC.

(2) ~~((Clients))~~ Individuals whose countable resources are above the SSI resource standards are not eligible for MN non-institutional medical benefits. See WAC ~~((388-475-0200))~~ 182-512-0200 through ~~((388-475-0550))~~ 182-512-0550 to determine countable resources.

(3) ~~((Clients))~~ Individuals who qualify for services under long term care have different criteria and may spend down excess resources to become eligible for LTC institutional or waiver medical benefits. Refer to WAC 388-513-1315 and 388-513-1395.

(4) ~~((A client))~~ An individual with income over the effective medically needy income limit (MNIL) described in WAC 182-519-0050 may become eligible for MN coverage when ~~((they have))~~ the individual has incurred medical expenses that are equal to the excess income. This is the process of meeting spenddown. Refer to chapter ~~((388-519))~~ 182-519 WAC for spenddown information.

(5) ~~((A client))~~ An individual may be eligible for medical coverage for up to three months immediately prior to the month of application, if the ~~((client))~~ individual:

(a) Met all eligibility requirements for the months being considered; and

(b) Received medical services covered by medicaid during that time.

(6) ~~((A client))~~ An individual eligible for MN without a spenddown is certified for up to twelve months. For an ~~((MN client with))~~ individual who must meet a spenddown, refer to WAC ~~((388-519-0110))~~ 182-519-0110. For a long-term care MN ~~((client))~~ individual, refer to WAC 388-513-1305 and 388-513-1315.

(7) ~~((A client))~~ An individual must reapply for each certification period. There is no continuous eligibility for MN. Although each additional certification period requires a new application, if the medical benefits have been closed less than thirty days, an eligibility review form may be used to reapply.

AMENDATORY SECTION (Amending WSR 11-24-018, filed 11/29/11, effective 12/1/11)

**WAC 182-512-0700 SSI-related medical—Income eligibility.** (1) In order to be eligible, ~~((a client))~~ an individual is required to do everything necessary to obtain any income to which ~~((they are))~~ he or she is entitled including (but not limited to):

(a) Annuities,

(b) Pensions,

(c) Unemployment compensation,

(d) Retirement, and

(e) Disability benefits; even if their receipt makes the ~~((client))~~ individual ineligible for ~~((department))~~ agency ser-

vices, unless the ~~((client))~~ individual can provide evidence showing good reason for not obtaining the benefits.

~~((The department does not count this income until the client begins to receive it.))~~

(2) The agency or its authorized representative does not count this income until the individual begins to receive it. Income is budgeted prospectively for all medical programs.

(3) Anticipated nonrecurring lump sum payments other than retroactive SSI/SSDI payments are considered income in the month received, subject to reporting requirements in WAC 388-418-0007(4). Any unspent portion is considered a resource the first of the following month.

(4) ~~The ((department))~~ agency or its authorized representative follows income and resource methodologies of the supplemental security income (SSI) program defined in federal law when determining eligibility for SSI-related medical or medicare savings programs unless the ~~((department))~~ agency adopts rules that are less restrictive than those of the SSI program.

(5) Exceptions to the SSI income methodology:

(a) Lump sum payments from a retroactive SSDI benefit, when reduced by the amount of SSI received during the period covered by the payment, are not counted as income;

(b) Unspent retroactive lump sum money from SSI or SSDI is excluded as a resource for nine months following receipt of the lump sum; and

(c) Both the principal and interest portions of payments from a sales contract, that meet the definition in WAC ~~((388-475-0350))~~ 182-512-0350(10), are unearned income.

(6) To be eligible for categorically needy (CN) SSI-related medical coverage, ~~((a client's))~~ an individual's countable income cannot exceed the CN program standard described in:

(a) WAC ~~((388-478-0065 through 388-478-0085))~~ 182-512-0010 for noninstitutional medical unless living in an alternate living facility; or

(b) WAC 388-513-1305(2) for noninstitutional CN benefits while living in an alternate living facility; or

(c) WAC 388-513-1315 for institutional and waiver services medical benefits.

(7) To be eligible for SSI-related medical coverage provided under the medically needy (MN) program, ~~((a client))~~ an individual must:

(a) Have countable income at or below the effective MN program standard as described in WAC ~~((388-478-0070))~~ 182-519-0050; or

(b) Satisfy spenddown requirements described in WAC ~~((388-519-0110))~~ 182-519-0110;

(c) Meet the requirements for noninstitutional MN benefits while living in an alternate living facility (ALF). See WAC 388-513-1305(3); or

(d) Meet eligibility for ~~((the MN waiver program. See WAC 388-515-1540 and 388-515-1550))~~ institutional MN benefits described in WAC 388-513-1315.

AMENDATORY SECTION (Amending WSR 11-24-018, filed 11/29/11, effective 12/1/11)

**WAC 182-512-0900 SSI-related medical—Deeming and allocation of income.** The ~~((department))~~ agency or its

authorized representative considers income of financially responsible persons to determine if a portion of that income must be regarded as available to other household members.

(1) Deeming is the process of determining how much of another person's income is counted when determining eligibility of an SSI-related applicant. When income is deemed to the SSI-related applicant from other household members, that income is considered the applicant's income. Income is deemed only:

(a) From a nonapplying spouse who lives with the SSI-related applicant; or

(b) From a parent(s) residing with an SSI-related applicant child.

(2) An allocation is an amount deducted from income counted in the eligibility determination and considered to be set aside for the support of a person other than the SSI-related applicant. When income is allocated to other household members from the SSI-related applicant(s) or from the applicant's spouse, that income is not counted as income of the SSI applicant.

(3) An SSI-related ~~((person))~~ individual applying for categorically needy (CN) medical coverage must have countable income at or below the SSI categorically needy income level (CNIL) described in WAC ~~((388-478-0080))~~ 182-512-0010 unless the ~~((person))~~ individual is working and meets all requirements for the healthcare for workers with disabilities (HWD) program described in WAC ~~((388-475-1000))~~ 182-511-1000 through ~~((388-475-1250))~~ 182-511-1250.

(4) For institutional or home and community based waiver programs, use rules described in WAC 388-513-1315.

(5) ~~The ((department))~~ agency or its authorized representative follows rules described in WAC ~~((388-475-0600))~~ 182-512-0600 through ~~((388-475-0880))~~ 182-512-0880 to determine the countable income of an SSI-related applicant or SSI-related couple.

(6) If countable income of the applicant exceeds the one-person SSI CNIL prior to considering the income of a nonapplying spouse or children, the applicant is not eligible for CN medical coverage and the ~~((department))~~ agency or its authorized representative determines eligibility for the medically needy (MN) program. If the countable income does not exceed the SSI CNIL, see WAC ~~((388-475-0920))~~ 182-512-0920 to determine if income is to be deemed to the applicant from the nonapplying spouse.

(7) If countable income (after allowable deductions) of an SSI-related couple both applying for medical coverage exceeds the two-person SSI CNIL, the couple is not eligible for CN medical coverage and the ~~((department))~~ agency or its authorized representative determines eligibility for the medically needy (MN) program.

(8) For CN medical coverage, allocations to children are deducted from the nonapplying spouse's unearned income, then from their earned income before income is deemed to the SSI-related applicant. See WAC ~~((388-475-0820))~~ 182-512-0820.

(9) For MN medical coverage, allocations to children are deducted from the income of the SSI-related applicant or SSI-related applicant couple. See subsection (10) of this section to determine the amount of the allocation.

(10) An SSI-related individual or couple applying for MN medical coverage is allowed an allocation to a nonapplying spouse, their SSI recipient spouse or their dependent child(ren) to reduce countable income before comparing income to the effective medically needy income level (MNIL) described in WAC ~~((388-478-0070))~~ 182-519-0050. The ~~((department))~~ agency or its authorized representative allocates income:

(a) Up to the effective one-person MNIL to a nonapplying spouse or SSI recipient spouse minus the spouse's countable income; and

(b) Up to one-half of the federal benefit rate (FBR) to each dependent minus each dependent's countable income. See WAC ~~((388-475-0820))~~ 182-512-0820 for child exclusions.

(11) A portion of a nonapplying spouse's income may be deemed to the SSI-related applicant:

(a) See WAC ~~((388-475-0920))~~ 182-512-0920(5) to determine how much income is deemed from a nonapplying spouse to the SSI-related applicant when determining CN eligibility; and

(b) See WAC ~~((388-475-0920))~~ 182-512-0920(10) to determine how much income is deemed from a nonapplying spouse to the SSI-related applicant when determining MN eligibility.

(12) A portion of the income of an ineligible parent or parents is allocated to the needs of an SSI-related applicant child. See WAC ~~((388-475-0940))~~ 182-512-0940 (4) through (7) to determine how much income is allocated from ineligible parent(s).

(13) Only income and resources actually contributed to an alien applicant from their sponsor are counted as income. For allocation of income from an alien sponsor, refer to WAC 388-450-0155.

AMENDATORY SECTION (Amending WSR 11-24-018, filed 11/29/11, effective 12/1/11)

**WAC 182-512-0920 SSI-related medical—Deeming/allocation of income from nonapplying spouse.** The ~~((department))~~ agency or its authorized representative considers the income of financially responsible persons to determine if a portion of that income is available to other household members.

(1) A portion of the income of a nonapplying spouse is considered available to meet the needs of an SSI-related applicant. A nonapplying spouse is defined as someone who is:

(a) Financially responsible for the SSI-related applicant as described in WAC ~~((388-408-0055))~~ 182-506-0010 and ~~((388-475-0960))~~ 182-512-0960. For institutional and home and community based waiver programs, see WAC 388-513-1315;

(b) Living in the same household with the SSI-related applicant;

(c) Not receiving a needs based payment such as temporary assistance to needy families (TANF), state funded cash assistance (SFA); or

(d) Not related to SSI, or is not applying for medical assistance including spouses receiving SSI.

(2) An ineligible spouse is the spouse of an SSI cash recipient and is either not eligible for SSI for themselves or who has elected to not receive SSI cash so that their spouse may be eligible. An SSI-related applicant who is the ineligible spouse of an SSI cash recipient is not eligible for categorically needy (CN) medical coverage and must be considered for medical coverage under the medically needy (MN) program.

(3) When determining whether a nonapplying spouse's income is countable, the ~~((department))~~ agency or its authorized representative:

(a) Follows the income rules described in WAC ~~((388-475-0600))~~ 182-512-0600 through ~~((388-475-0750))~~ 182-512-0750;

(b) Excludes income described in WAC ~~((388-475-0800))~~ 182-512-0800 (2) through ~~((44))~~ (10), and all income excluded under federal statute or state law as described in WAC ~~((388-475-0860))~~ 182-512-0860.

(c) Excludes work-related expenses described in WAC ~~((388-475-0840))~~ 182-512-0840, with the exception that the sixty-five dollars plus one half earned income deduction described in WAC ~~((388-475-0840))~~ 182-512-0840(2) does not apply;

(d) Deducts any court ordered child support which the nonapplying spouse pays for a child outside of the home (current support or arrears); and

(e) Deducts any applicable child-related income exclusions described in WAC ~~((388-475-0820))~~ 182-512-0820.

(4) The ~~((department))~~ agency or its authorized representative allocates income of the nonapplying spouse to nonapplying children who reside in the home as described in WAC 388-475-0820. Allocations to children are deducted first from the nonapplying spouse's unearned income, then from their earned income.

(a) For CN medical determinations, allocations to children are not allowed out of the income of the SSI-related applicant, only from the income of the nonapplying spouse.

(b) For MN medical determinations, allocations to children are allowed from the income of the SSI-related applicant if the applicant is unmarried.

(5) For SSI-related CN medical determinations, a portion of the countable income of a nonapplying spouse remaining after the deductions and allocations described in subsections (3) and (4) of this section may be deemed to the SSI-related applicant. If the nonapplying spouse's countable income is:

(a) Less than or equal to one-half of the federal benefit rate (FBR), no income is deemed to the applicant. Compare the applicant's countable income to the one-person SSI categorically needy income level (CNIL) described in WAC ~~((388-470-0040))~~ 182-512-0010. For healthcare for workers with disabilities (HWD) applicants, compare to the one-person HWD standard described in WAC ~~((388-478-0075))~~ 182-505-0100 (1)(c).

(b) Greater than one-half of the FBR, then the entire nonapplying spouse's countable income is deemed to the applicant. Compare the applicant's income to the two-person SSI CNIL. For HWD applicants, compare to the two-person HWD standard described in WAC ~~((388-478-0075))~~ 182-505-0100 (1)(c).

(6) When income is not deemed to the SSI-related applicant from the nonapplying spouse per subsection (5)(a):

(a) Allow all allowable income deductions and exclusions as described in chapter ((388-475)) 182-512 WAC to the SSI-related applicant's income; and

(b) Compare the net remaining income to the one-person SSI CNIL or the one-person HWD standard.

(7) When income is deemed to the SSI-related applicant from the nonapplying spouse per subsection (5)(b) of this section:

(a) Combine the applicant's unearned income with any unearned income deemed from the nonapplying spouse and allow one twenty dollar general income exclusion to the combined amount.

(b) Combine the applicant's earned income with any earned income deemed from the nonapplying spouse and allow the sixty-five dollar plus one half of the remainder earned income deduction (described in WAC ((388-475-0840)) 182-512-0840(2)) to the combined amount.

(c) Add together the net unearned and net earned income amounts and compare the total to the two-person SSI CNIL described in WAC 182-512-0010 or the two-person HWD standard described in WAC ((388-478-0075)) 182-505-0100 (1)(c). If the income is equal to or below the applicable two-person standard, the applicant is eligible for CN medical coverage.

(8) An SSI-related applicant under the age of sixty-five who is working at or below the substantial gainful activity (SGA) level but who is not eligible for CN coverage under the regular SSI-related program, may be considered for eligibility under the MN program or under the HWD program. The SGA level is determined annually by the Social Security Administration and is posted at: <https://secure.ssa.gov/poms/nxf/0410501015>.

(9) If the SSI-related applicant's countable income is above the applicable SSI CNIL standard, the ((department)) agency or its authorized representative considers eligibility under the MN program or under the HWD program if the individual is under the age of sixty-five and working. An SSI-related applicant who meets the following criteria is not eligible for MN coverage and eligibility must be determined under HWD:

(a) A blind or disabled individual who is under the age of sixty-five;

(b) Who has earned income over the SGA level; and

(c) Is not receiving a Title II Social Security cash benefit based on blindness or disability.

(10) For SSI-related MN medical determinations, a portion of the countable income of a nonapplying spouse remaining after the deductions and allocations described in subsections (3) and (4) of this section may be deemed to the SSI-related applicant. If the nonapplying spouse's countable income is:

(a) Less than or equal to the effective one-person MNIL described in WAC ((388-478-0070)) 182-519-0050, no income is deemed to the applicant and a portion of the applicant's countable income is allocated to the nonapplying spouse's income to raise it to the effective MNIL standard.

(b) Greater than the effective MNIL, then the amount in excess of the effective one-person MNIL is deemed to the

applicant. Compare the applicant's income to the effective one-person MNIL.

(11) When income is not deemed to the SSI-related applicant from the nonapplying spouse per subsection (10)(a) of this section:

(a) Allocate income from the applicant to bring the income of the nonapplying spouse up to the effective one-person MNIL standard;

(b) Allow all allowable income deductions and exclusions as described in chapter ((388-475)) 182-512 WAC to the SSI-related applicant's remaining income;

(c) Allow a deduction for medical insurance premium expenses (if applicable); and

(d) Compare the net countable income to the effective one-person MNIL.

(12) When income is deemed to the SSI-related applicant from the nonapplying spouse per subsection (10)(b) of this section:

(a) Combine the applicant's unearned income with any unearned income deemed from the nonapplying spouse and allow one twenty dollar general income exclusion to the combined amount;

(b) Combine the applicant's earned income with any earned income deemed from the nonapplying spouse and allow the sixty-five dollar plus one half of the remainder earned income deduction (described in WAC ((388-475-0840)) 182-512-0840(2)) to the combined amount;

(c) Add together the net unearned and net earned income amounts;

(d) Allow a deduction for medical insurance premium expenses (if applicable) per WAC ((388-519-0100)) 182-519-0100(5); and

(e) Compare the net countable income to the effective one-person MNIL described in WAC ((388-478-0070)) 182-519-0050. If the income is:

(i) Equal to or below the effective one-person MNIL, the applicant is eligible for MN medical coverage with no spend-down.

(ii) Greater than the effective MNIL, the applicant is only eligible for MN medical coverage after meeting a spend-down liability as described in WAC ((388-519-0110)) 182-519-0110.

(13) The ineligible spouse of an SSI-cash recipient applying for MN coverage is eligible to receive the deductions and allocations described in subsection (10)(a) of this section.

**AMENDATORY SECTION** (Amending WSR 11-24-018, filed 11/29/11, effective 12/1/11)

**WAC 182-512-0940 SSI-related medical—Deeming income from an ineligible parent(s) to a child applying for SSI-related medical.** The ((department)) agency or its authorized representative considers income of financially responsible persons to determine if a portion of that income must be regarded as available to other household members.

(1) A portion of the income of a parent(s) is considered available to the SSI-related applicant child when the child is age seventeen or younger and the parent(s) is:

(a) Financially responsible for the SSI-related child as described in WAC ((~~388-408-0055~~) 182-506-0010(2));

(b) The natural, adoptive, or step-parent of the child;

(c) Living in the same household with the child;

(d) Not receiving a needs-based payment such as TANF, SFA or SSI; and

(e) Not related to SSI or not applying for medical assistance.

(2) If an SSI-related applicant between the ages of eighteen to twenty-one lives with their parents, only consider the parent's income available to the applicant if it is actually contributed to the applicant. If income is not contributed, count only the applicant's own separate income.

(3) Income that is deemed to the child is considered as that child's income.

(4) When determining whether a parent's income is countable, the ((~~department~~) agency or its authorized representative) follows:

(a) The income rules described in WAC ((~~388-475-0600~~) 182-512-0600 through ((~~388-475-0750~~) 182-512-0750); and

(b) Excludes income described in WAC ((~~388-475-0800~~) 182-512-0800 and ((~~388-475-0840~~) 182-512-0840), and all income excluded under a federal statute or state law as described in WAC ((~~388-475-0860~~) 182-512-0860).

(5) When determining the amount of income to be deemed from a parent(s) to an SSI-related minor child for categorically needy (CN) and medically needy (MN) coverage, the ((~~department~~) agency or its authorized representative) reduces the parent(s) countable income in the following order:

(a) Court ordered child support paid out for a child not in the home;

(b) An amount equal to one half of the federal benefit rate (FBR) for each SSI-eligible sibling living in the household, minus any countable income of that child. See WAC 388-478-0055 for FBR amount;

(c) A twenty dollar general income exclusion;

(d) A deduction equal to sixty-five dollars plus one-half of the remainder from any remaining earned income of the parent(s);

(e) An amount equal to the one-person SSI CNIL for a single parent or the two-person SSI CNIL for a two parent household;

(f) Any income remaining after these deductions is considered countable income to the SSI-related child and is added to the child's own income. If there is more than one child applying for SSI-related medical coverage, the deemed parental income is divided equally between the applicant children; and

(g) The deductions described in this section are deducted first from unearned income then from earned income unless they are specific to earned income.

(6) The SSI-related applicant child is also allowed all applicable income exclusions and disregards described in chapter ((~~388-475~~) 182-475) WAC from their own income. After determining the child's nonexcluded income, the ((~~department~~) agency or its authorized representative):

(a) Allows the twenty dollar general income exclusion from any unearned income;

(b) Deducts sixty-five dollars plus one half of the remainder from any earned income which has not already been excluded under the student earned income exclusion (see WAC ((~~388-475-0820~~) 182-512-0820)).

(c) Adds the child's countable income to the amount deemed from their parent(s). If the combination of the child's countable income plus deemed parental income is equal to or less than the SSI CNIL, the child is eligible for SSI-related CN medical coverage.

(7) If the combination of the child's countable income plus deemed parental income is greater than the SSI CNIL, the ((~~department~~) agency or its authorized representative) considers the child for SSI-related medically needy (MN) coverage. Any amount exceeding the effective medically needy income level (MNIL) is used to calculate the amount of the child's spenddown liability as described in WAC ((~~388-519-0110~~) 182-519-0110). See WAC ((~~388-478-0070~~) 182-519-0050) for the current MNIL standards.

#### REPEALER

The following chapter of the Washington Administrative Code is repealed:

WAC 388-512-1210                      Program description.

AMENDATORY SECTION (Amending WSR 11-23-091, filed 11/17/11, effective 11/21/11)

**WAC 182-519-0050 Monthly income and countable resource standards for medically needy (MN).** (1) Changes to the medically needy income level (MNIL) occur on January 1st of each calendar year(~~(-Current income standards can be found at [http://www1.dshs.wa.gov/pdf/esa/manual/Standards\\_C\\_MedAsst\\_Chart.pdf](http://www1.dshs.wa.gov/pdf/esa/manual/Standards_C_MedAsst_Chart.pdf))~~) when the Social Security Administration (SSA) issues a cost-of-living adjustment for that year.

(2) Medically needy (MN) standards for persons who meet institutional status requirements are in WAC 388-513-1395. The standard for a client who lives in an alternate living facility can be found in WAC 388-513-1305.

(3) ((~~Find~~) The resource standards for institutional programs are found) in WAC 388-513-1350. The institutional standard chart can be found at ((~~<http://www1.dshs.wa.gov/manuals/eaz/sections/LongTermCare/LTCstandardspna.shtml>~~) <http://www.dshs.wa.gov/manuals/eaz/sections/LongTermCare/LTCstandardspna.shtml>.

(4) Countable resource standards for the noninstitutional MN program are:

(a) One person	\$2,000
(b) A legally married couple	\$3,000
(c) For each additional family member add	\$50

(5) For individuals who do not meet institutional status requirements, the income standard used to determine eligibility for the medically needy program is the "effective" MNIL. The "effective" MNIL is the one-person federal benefit rate (FBR) established by SSA each year, or the MNIL listed below, whichever amount is higher. The FBR is the supple-

mental security income (SSI) payment standard. For example, in 2012 the FBR is six hundred ninety-eight dollars.

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
467	592	667	742	858	975	1125	1242	1358	1483

**AMENDATORY SECTION** (Amending WSR 09-08-003, filed 3/19/09, effective 4/19/09)

**WAC 388-519-0100 Eligibility for the medically needy program.** (1) An individual who meets the following conditions may be eligible for medically needy (MN) coverage under the special rules in chapters 388-513 WAC and 388-515 WAC:

(a) Meets the institutional status requirements of WAC 388-513-1320;

(b) Resides in a medical institution as described in WAC 388-513-1395; or

(c) Receives waiver services under a medically needy in-home waiver (MNIW) according to WAC 388-515-1550 or a medically needy residential waiver (MNRW) according to WAC 388-515-1540.

(2) An SSI-related individual who lives in ~~((a department))~~ an agency contracted alternate living facility may be eligible for MN coverage under the rules described in WAC 388-513-1305.

(3) An individual may be eligible for MN coverage under this chapter when he or she is:

(a) Not covered under subsection (1) and (2) of this section; and

(b) Eligible for categorically needy (CN) medical coverage in all other respects except that his or her CN countable income is above the CN income standard.

(4) MN coverage may be available if the individual is:

(a) A child;

(b) A pregnant woman;

(c) A refugee;

(d) An SSI-related individual including an aged, blind or disabled individual with countable income under the CN income standard, who is an ineligible spouse of an SSI recipient; or

(e) A hospice client with countable income which is above the special income level (SIL).

(5) An individual who is not eligible for CN medical and who is applying for MN coverage has the right to income deductions in addition to, or instead of, those used to arrive at CN countable income. Deductions to income are applied to each month of the base period to determine MN countable income. The following deductions are used to calculate countable income for MN:

(a) The agency disregards the difference between the MNIL described in WAC 182-519-0050 and the federal benefit rate (FBR) established by the Social Security Administration each year. The FBR is the one person Supplemental Security Income (SSI) payment standard.

(b) All health insurance premiums, with the exception of medicare Part A, Part B, Part C and Part D premiums expected to be paid by the individual or family member during the base period(s);

~~((b))~~ (c) Any allocations to a spouse or to dependents for an SSI-related individual who is married or who has dependent children. Rules for allocating income are described in WAC ~~((388-475-0900))~~ 182-512-0900 through 182-512-0960;

~~((c))~~ (d) For an SSI-related individual who is married and lives in the same home as his or her spouse who receives home and community based waiver services under chapter 388-515 WAC, an income deduction equal to the medically needy income level (MNIL) minus the nonapplying spouse's income; and

~~((d))~~ (e) A child or pregnant woman who is applying for MN coverage is eligible for income deductions allowed under TANF/SFA rules and not under the rules for CN programs based on the federal poverty level. See WAC ~~((388-450-0210(4)))~~ 182-109-0001(4) for exceptions to the TANF/SFA rules which apply to medical programs and not to the cash assistance program.

(6) The MNIL for individuals who qualify for MN coverage under subsection (1) of this section is based on rules in chapter 388-513 and 388-515 WAC.

(7) The MNIL for all other individuals is described in WAC ~~((388-478-0070))~~ 182-519-0050. If an individual has countable income which is at or below the MNIL, he or she is certified as eligible for up to twelve months of MN medical coverage.

(8) If an individual has countable income which is over the MNIL, the countable income that exceeds the ~~((department's))~~ agency's MNIL standards is called "excess income."

(9) When individuals have "excess income" they are not eligible for MN coverage until they provide evidence to the ~~((department))~~ agency of medical expenses incurred by themselves, their spouse or family members who live in the home for whom they are financially responsible. See WAC ~~((388-519-0110(8)))~~ 182-519-0110(8). An expense has been incurred when:

(a) The individual has received the medical treatment or medical supplies, is financially liable for the medical expense but has not yet paid the bill; or

(b) The individual has paid for the expense within the current or retroactive base period described in WAC ~~((388-519-0110))~~ 182-519-0110.

(10) Incurred medical expenses or obligations may be used to offset any portion of countable income that is over the MNIL. This is the process of meeting "spenddown."

(11) The ~~((department))~~ agency or the agency's designee calculates the amount of an individual's spenddown by multiplying the monthly excess income amount by the number of months in the certification period as described in WAC ~~((388-519-0110))~~ 182-519-0110. The qualifying medical expenses must be greater than or equal to the total calculated spenddown amount.

(12) An individual who is considered for MN coverage under this chapter may not spenddown excess resources to become eligible for the MN program. Under this chapter individuals are ineligible for MN coverage if their resources exceed the program standard in WAC ~~((388-478-0070))~~ 182-519-0050. An individual who is considered for MN coverage under WAC 388-513-1395, ~~((388-505-0250))~~ 182-514-0250

or ~~((388-505-0255))~~ 182-514-0255 is allowed to spenddown excess resources.

(13) There is no automatic redetermination process for MN coverage. An individual must submit an application for each eligibility period under the MN program.

(14) An individual who requests a timely administrative hearing under WAC 388-458-0040 is not eligible for continued benefits beyond the end of the original certification date under the ~~((medically needy))~~ MN program.

**AMENDATORY SECTION** (Amending WSR 09-08-003, filed 3/19/09, effective 4/19/09)

**WAC 388-519-0110 Spenddown of excess income for the medically needy program.** (1) An individual who applies for medical assistance and is eligible for medically needy (MN) coverage with a spenddown may choose a three month or a six month base period. A base period is a time period used to compute the amount of the spenddown liability. The months must be consecutive calendar months unless one of the conditions in subsection (4) of this section applies.

(2) A base period begins on the first day of the month, in which an individual applies for medical assistance, subject to the exceptions in subsection (4) of this section.

(3) An individual may request a separate base period to cover the time period up to three calendar months immediately prior to the month of application. This is called a retroactive base period.

(4) A base period may vary from the terms in subsections (1), (2), or (3) of this section if:

(a) A three month base period would overlap a previous eligibility period; or

(b) The individual has countable resources that are over the applicable standard for any part of the required base period; or

(c) The ~~((client))~~ individual is not or will not be able to meet the TANF-related or SSI-related requirement for the required base period; or

(d) The individual is eligible for categorically needy (CN) coverage for part of the required base period; or

(e) The ~~((client))~~ individual was not otherwise eligible for MN coverage for each of the months of the retroactive base period.

(5) An individual's spenddown liability is calculated by the ~~((department))~~ agency or its authorized representative. The MN countable income from each month of the base period is compared to the effective medically needy income level (MNIL) described in WAC 182-519-0050. Income which is over the effective MNIL standard (based on the individual's household size) in each month in the base period is added together to determine the total spenddown amount. ~~((The MNIL standard is found at [http://www.dshs.wa.gov/pdf/esa/manual/standards\\_C\\_MedAsstChart.pdf](http://www.dshs.wa.gov/pdf/esa/manual/standards_C_MedAsstChart.pdf) and is updated annually in January.))~~

(6) If household income varies and an individual's MN countable income falls below the effective MNIL for one or more months, the difference is used to offset the excess income in other months of the base period. If this results in a spenddown amount of zero dollars and cents, see WAC ~~((388-519-0100(7)))~~ 182-519-0100(7).

(7) If an individual's income decreases, the ~~((department))~~ agency or its authorized representative approves CN coverage for each month in the base period when the individual's countable income and resources are equal to or below the applicable CN standards. Children under the age of nineteen and pregnant women who become CN eligible in any month of the base period remain continuously eligible for CN coverage for the remainder of the certification even if there is a subsequent increase in income.

(8) Once an individual's spenddown amount has been determined, qualifying medical expenses are deducted. To be considered a qualifying medical expense, the expense must:

(a) Be an expense for which the individual is financially liable;

(b) Not have been used to meet another spenddown;

(c) Not be the confirmed responsibility of a third party.

The ~~((department))~~ agency or its authorized representative allows the entire expense if the third party has not confirmed its coverage of the expense within:

(i) Forty-five days of the date of service; or

(ii) Thirty days after the base period ends.

(d) Be an incurred expense for the individual:

(i) The individual's spouse;

(ii) A family member, residing in the home of the individual, for whom the individual is financially responsible; or

(iii) A relative, residing in the home of the individual, who is financially responsible for the individual.

(e) Meet one of the following conditions:

(i) Be an unpaid liability at the beginning of the base period;

(ii) Be for medical services either paid or unpaid and incurred during the base period;

(iii) Be for medical services incurred and paid during the three month retroactive base period if eligibility for medical assistance was not established in that base period. Paid expenses that meet this requirement may be applied towards the current base period; or

(iv) Be for medical services incurred during a previous base period and either unpaid or paid for, if it was necessary for the individual to make a payment due to delays in the certification for that base period.

(9) An exception to the provisions in subsection (8) of this section exists for qualifying medical expenses that have been paid on behalf of the individual by a publicly administered program during the current or the retroactive base period. The ~~((department))~~ agency or its authorized representative uses the qualifying medical expenses to meet the spenddown liability. To qualify for this exception the program must:

(a) Not be federally funded or make the payments from federally matched funds;

(b) Not pay the expenses prior to the first day of the retroactive base period; and

(c) Provide proof of the expenses paid on behalf of the individual.

(10) Once the ~~((department))~~ agency or its authorized representative has determined that the expenses meet the definition of a qualified expense as defined in subsection (8) or (9) of this section, the expenses are subtracted from the spenddown liability to determine the date the individual is



eligible for medical coverage to begin. Qualifying medical expenses are deducted in the following order:

(a) First, medicare and other health insurance deductibles, coinsurance charges, enrollment fees, copayments and premiums that are the individual's responsibility under medicare Part A, Part B, Part C and Part D. (Health insurance premiums are income deductions under WAC ~~((388-519-0100(5)))~~ 182-519-0100(5));

(b) Second, medical expenses incurred and paid by the individual during the three month retroactive base period if eligibility for medical assistance was not established in that base period;

(c) Third, current payments on, or unpaid balance of, medical expenses incurred prior to the current base period which have not been used to establish eligibility for medical coverage in any other base period. The ~~((department))~~ agency sets no limit on the age of an unpaid expense; however, the expense must still be a current liability and be unpaid at the beginning of the base period;

(d) Fourth, other medical expenses that would not be covered by the ~~((department's))~~ agency's medical programs, minus any third party payments which apply to the charges. The items or services allowed as a medical expense must have been provided or prescribed by a licensed health care provider;

(e) Fifth, other medical expenses which have been incurred by the individual during the base period that are potentially payable by the MN program (minus any confirmed third party payments that apply to the charges), even if payment is denied for these services because they exceed the ~~((department))~~ agency limits on amount, duration or scope of care. Scope of care is described in WAC ~~((388-501-0060))~~ 182-501-0060 and ~~((388-501-0065))~~ 182-501-0065; and

(f) Sixth, other medical expenses that have been incurred by the individual during the base period that are potentially payable by the MN program (minus any confirmed third party payments that apply to the charges) and that are within the ~~((department))~~ agency limits on amount, duration or scope of care.

(11) If an individual submits verification of qualifying medical expenses with his or her application that meets or exceeds the spenddown liability, he or she is eligible for MN medical coverage for the remainder of the base period unless their circumstances change. See WAC 388-418-0005 to determine which changes must be reported to the ~~((department))~~ agency or its authorized representative. The beginning of eligibility is determined as described in WAC ~~((388-416-0020))~~ 182-504-0020.

(12) If an individual cannot meet the spenddown amount at the time the application is submitted, the individual is not eligible until he or she provides proof of additional qualifying expenses that meet the spenddown liability.

(13) Each dollar of a qualifying medical expense may count once against a spenddown period that leads to eligibility for MN coverage. However, medical expenses may be used more than once under the following circumstances:

(a) The individual did not meet his or her total spenddown liability and become eligible in a previous base period and the bill remains unpaid; or

(b) The medical expense was a bill incurred and paid within three months of the current application and the ~~((department))~~ agency or its authorized representative could not establish eligibility for medical assistance for the individual in the retroactive base period.

(14) The individual must provide the proof of qualifying medical expenses to the ~~((department))~~ agency or its authorized representative. The deadline for providing medical expense information is thirty days after the base period ends unless there is a good reason for delay.

(15) Once an individual meets the spenddown requirement and the certification begin date has been established, newly identified expenses cannot be considered toward that spenddown unless there is a good reason for the delay in submitting the expense or there was ~~((a department))~~ an error by the agency or its authorized representative in determining the correct begin date.

(16) Good reasons for delay in providing medical expense information to the ~~((department))~~ agency or its authorized representative include, but are not limited to:

(a) The individual did not receive a timely bill from his or her medical provider or insurance company;

(b) The individual has medical issues that prevents him or her from submitting proof in a timely manner; or

(c) The individual meets the criteria for needing a supplemental accommodation under chapter 388-472 WAC.

(17) The ~~((department))~~ agency or its authorized representative is not responsible to pay for any expense or portion of an expense that has been used to meet an individual's spenddown liability. If an expense is potentially payable under the MN program, and only a portion of the medical expense has been assigned to meet spenddown, the medical provider may not bill the individual for more than the amount which was assigned to the remaining spenddown liability, or accept or retain any additional amount for the covered service from the individual. Any additional amount may be billed to the ~~((department))~~ agency. See WAC ~~((388-502-0160))~~ 182-502-0160, Billing a client.

(18) The ~~((department))~~ agency or its authorized representative determines whether any payment is due to the medical provider on medical expenses that have been partially assigned to meet a spenddown liability, according to WAC ~~((388-502-0100))~~ 182-502-0100.

(19) If the medical expense assigned to spenddown was incurred outside of a period of MN eligibility, or if the expense is not the type that is covered by the ~~((department's))~~ agency's or its authorized representative's medical assistance programs, the ~~((department))~~ agency or its authorized representative is not responsible for any portion of the bill.

#### NEW SECTION

The following section of the Washington Administrative Code is decodified as follows:

Old WAC Number	New WAC Number
388-519-0100	182-519-0100

**WSR 12-16-065**  
**PROPOSED RULES**  
**DEPARTMENT OF**  
**LABOR AND INDUSTRIES**

[Filed July 31, 2012, 9:08 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-11-111.

Title of Rule and Other Identifying Information: Chapter 296-200A WAC, Contractor certificate of registration renewals—Security—Insurance.

Hearing Location(s): Department of Labor and Industries, 7273 Linderson Way S.W., Room S119, Tumwater, WA 98501, on September 4, 2012, at 9:00 a.m.

Date of Intended Adoption: November 6, 2012.

Submit Written Comments to: Alicia Curry, P.O. Box 44400, Olympia, WA 98504-4400, e-mail alicia.curry@lni.wa.gov, fax (360) 902-5292, by 5 p.m. on September 4, 2012.

Assistance for Persons with Disabilities: Contact Alicia Curry by August 24, 2012, at alicia.curry@lni.wa.gov or (360) 902-4281.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The purpose of this rule making is to revise the insurance and bond filing requirements for contractors to reflect changes in new technology. Currently, the department is required to maintain a hard copy of the documents; however, the department now has access to the information through an electronic system, which eliminates the need for paper.

The department will also reduce the processing time for insurance and bond documents if they are submitted on-line. This will allow the program's customer service staff to focus on other needs of the program.

Statutory Authority for Adoption: Chapter 18.27 RCW.

Statute Being Implemented: Chapter 18.27 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Department of labor and industries (L&I), governmental.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Jose Rodriguez, Tumwater, Washington, (360) 902-6348.

No small business economic impact statement has been prepared under chapter 19.85 RCW. L&I is exempt from preparing a small business economic impact statement under RCW 19.85.030 (1)(a), since the proposed rule would not impose any costs on businesses.

A cost-benefit analysis is not required under RCW 34.05.328. L&I is exempt from preparing a cost-benefit analysis under RCW 34.05.328 (5)(a), since the proposed rule would not impose any costs on businesses.

July 31, 2012

Judy Schurke

Director

AMENDATORY SECTION (Amending WSR 09-10-079, filed 5/5/09, effective 6/5/09)

**WAC 296-200A-025 How does a contractor register, renew, reregister or reinstate its registration?** (1) A contractor may register/renew/reregister/reinstate if it:

(a) Complete an application for contractor registration, have it notarized, and submit it to the department as required by RCW 18.27.030;

(b) Satisfies one of the following:

(i) Obtains a continuous surety bond in the total amount specified in WAC 296-200A-030 and submits the original bond (~~(with bond number)~~) to the department or submits the bond information through the department of labor and industries' electronic bond and insurance policy system (EBIPS) (see RCW 18.27.040); or

(ii) Assigns, to the department, a security deposit in the form of a savings account held in a Washington state bank on a department issued form (F625-000-008) in the amounts specified in WAC 296-200A-030;

(c) Obtains public liability and property damage insurance and submits the original insurance certificate (~~(with policy number)~~) to the department or submits the insurance information through the department of labor and industries' electronic bond and insurance policy system (EBIPS) (see RCW 18.27.050); and

(d) Pays the issuance/renewal/reregistration/reinstate ment fee shown in WAC 296-200A-900.

(2) A contractor may renew its registration if it submits, to the department, a completed contractor registration renewal notice and the material required in subsection (1)(b) and (c) of this section and pays the renewal fee shown in WAC 296-200A-900. No more than forty-five days before the contractor's registration expires, the department must send a renewal notice to the contractor's last recorded address with the contractor registration program. It is the responsibility of the contractor to notify the department within ten days and **in writing** of a change in address.

(3) The contractor must submit all required documents to the department in a manner approved by the department as set forth in this subsection:

(a) Include, on each document, the name exactly as it appears on the contractor registration application or renewal notice;

(b) Include, if renewing a registration, the contractor's registration number on each of the documents;

(c) Include a copy of the certificate or document (when required) by the secretary of state for the contractor to do business in the state of Washington; and

(d) Have and maintain an active and valid unified business identifier (certificate of registration) with the department of revenue.

(4) The department will not register, renew, or reinstate the registration of a contractor if:

(a) Any of the required documents are missing, false, or are incomplete;

(b) The documents do not have the legal name of the contractor as documented on official governmental issued photo identification;

(c) In the case of a renewal, the documents do not include the registration number or UBI number; or

(d) The applicant or person pursuant to RCW 18.27.030 has an unsatisfied final judgment based on work which is subject to chapter 18.27 RCW and this chapter.

(5) The contractor may request, in a letter filed with the application or renewal materials, that the registration period end on a particular day. However, the registration period cannot exceed two years.

**WSR 12-16-066**  
**PROPOSED RULES**  
**DEPARTMENT OF**  
**LABOR AND INDUSTRIES**

[Filed July 31, 2012, 9:11 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-12-061.

Title of Rule and Other Identifying Information: Chapter 296-31 WAC, Crime victims compensation mental health treatment rules and fees and chapter 296-33 WAC, Attendant services.

Hearing Location(s): 7273 Linderson Way S.W., Room S119, Tumwater, WA 98501, on September 13, 2012, at 2:00 p.m.

Date of Intended Adoption: October 23, 2012.

Submit Written Comments to: Cletus Nnanabu, P.O. Box 44520, Olympia, WA 98504-4520, e-mail Cletus.Nnanabu@lni.wa.gov, fax (360) 902-5333, by 5 p.m. on September 13, 2012.

Assistance for Persons with Disabilities: Contact Courtney Davis by August 30, 2012, at (360) 902-5341.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: This rule making will amend eight and repeal nine rules under chapter 296-31 WAC. The purpose is to be consistent with SSB 5691 (chapter 346, Laws of 2011). The amendments will include the removal of references to Title 51 RCW and WACs being repealed, explain the impacts of the new benefit maximum, add clarity, and correct references to the billing guidelines.

Chapter 296-33 WAC will be revised to improve quality of care and public health to victims. It will also increase the efficiency of staff time and will eliminate the uncertainty of employer/employee relationships between the program and care providers.

Reasons Supporting Proposal: The updates are needed to explain the impacts of the new benefit maximum, add clarity, and correct references to the billing guidelines. The amendments will also streamline the reporting process for mental health providers. The repealed WACs are repetitive with rules contained in chapter 296-30 WAC regarding provider responsibilities. The independent mental health or independent medical evaluations are no longer considered separate from regular medical exams and the rule under WAC 296-31-069 is redundant.

Statutory Authority for Adoption: Chapter 7.68 RCW.

Statute Being Implemented: SSB 5691 (chapter 346, Laws of 2011).

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Department of labor and industries, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Cletus Nnanabu, Tumwater, Washington, (360) 902-5340.

No small business economic impact statement has been prepared under chapter 19.85 RCW. This rule (chapter 296-31 WAC) is specifically exempt from the small business economic impact statement requirement because the proposed rule changes will clarify rule language without changing its effect (see RCW 19.85.025 referencing RCW 34.05.310 (4)(d)).

This rule (chapter 296-33 WAC) change is expected to impose no more than minor costs on the entire provider population that is required to comply with this rule.

A cost-benefit analysis is required under RCW 34.05.-328. A preliminary cost-benefit analysis may be obtained by contacting Maty Brimmer, P.O. Box 44520, Olympia, WA 98504, phone (360) 902-6707, fax (360) 902-5333, e-mail maty.brimmer@lni.wa.gov.

July 31, 2012  
Judy Schurke  
Director

AMENDATORY SECTION (Amending WSR 00-10-003, filed 4/20/00, effective 5/22/00)

**WAC 296-31-012 What mental health treatment and services are not authorized?** (1) The crime victims compensation program will not authorize services and treatment:

(a) Beyond the point that the accepted condition becomes fixed and stable (i.e., maintenance care);

(b) After ~~((the date a permanent partial disability award is made;~~

~~(c) After a client is placed on a permanent pension roll, except as allowed in RCW 51.36.010)) a client is determined to be permanently totally disabled and while receiving financial support for lost wages except if the treatment is deemed medically necessary for previously accepted condition(s);~~

~~((c)) (c) When services are not considered proper and necessary. Services that are inappropriate to the accepted condition, which present hazards in excess of the expected benefit, are controversial, obsolete, or experimental are presumed not to be proper and necessary, and shall only be authorized on an individual case basis with written authorization for the service from the department; ~~((c))~~~~

(d) That are not considered to be evidence-based and curative treatment; or

(e) For any therapies which focus on the recovery of repressed memory or recovery of memory which focuses on memories of physically impossible acts, highly improbable acts for which verification should be available, but is not, or unverified memories of acts occurring prior to the age of two.

(2) We will not pay for services or treatment, including medications:

(a) On rejected claims;

EXCEPTION: We will pay for assessments or diagnostic services used as a basis for the department's decision.

(b) After the date a claim is closed.

EXCEPTION: Therapy for eligible survivors of victims of homicide can be provided on closed claims.

(c) After the maximum benefit has been reached.

AMENDATORY SECTION (Amending WSR 99-20-031, filed 9/29/99, effective 11/1/99)

**WAC 296-31-016 What treatment or services require authorization from the crime victims compensation program?** (1) The program must authorize the following mental health services and/or treatment:

~~(a) ((Treatment beyond thirty sessions for adults or forty sessions for children;~~

~~(b) Treatment beyond fifty sessions for adults or sixty sessions for children;~~

~~(c))~~ Consultations beyond what are allowed in WAC 296-31-065;

~~((d))~~ (b) Inpatient hospitalization;

~~((e))~~ (c) Concurrent treatment with more than one provider;

~~((f))~~ (d) Electroconvulsive therapy;

~~((g))~~ (e) Neuropsychological evaluation (testing);

~~((h))~~ (f) Day treatment for seriously ill children under eighteen years old;

~~((i))~~ (g) Referrals for services or treatment not in our fee schedule ~~((see WAC 296-31-040))~~;

(h) Teleconsultations and other telehealth services.

(2) Your request for authorization must be in writing and include:

(a) A statement of the condition(s) diagnosed;

(b) Current DSM or ICD codes;

(c) The relationship of the condition(s) diagnosed to the criminal act; and

(d) An outline of the proposed treatment program that includes its length, components, procedure codes and expected prognosis.

AMENDATORY SECTION (Amending WSR 99-20-031, filed 9/29/99, effective 11/1/99)

**WAC 296-31-060 What reports are required from mental health providers?** The crime victims compensation program requires the following reports from mental health providers:

(1) **Initial response and assessment: Form I:** This report is required if you are seeing the client for **six sessions or less**, and must contain:

(a) The client's initial description of the criminal act for which they have filed a crime victims compensation claim;

(b) The client's presenting symptoms/issues by your observations and the client's report;

~~(c) ((An estimate of time loss from work as a result of the crime injury, if any. Provide an estimate of when the individual will return to work, why they are unable to work, the extent of impairment and the prognosis for future occupational functioning.))~~ If the claimant is unable to work as a result of the crime injury, provide an estimate of when the claimant will return to work and why they are unable to work; and

(d) What type of intervention(s) you provided.

EXCEPTION: If you will be providing more than six sessions it is not necessary to complete Form I, instead complete Form II.

(2) **Initial response and assessment: Form II:** This report is required if **more than six sessions** are anticipated. Form II must be submitted no later than the sixth session, and must contain:

(a) The client's initial description of the criminal act for which they have filed a crime victims compensation claim;

(b) A summary of the essential features of the client's symptoms related to the criminal act, beliefs/attributions, vulnerabilities, defenses and/or resources that lead to your clinical impression (refer to current DSM and crime victims compensation program guidelines);

(c) Any preexisting or coexisting emotional/behavioral or health conditions relevant to the crime impact if present, and how they may have been exacerbated by the crime victimization;

(d) Specific diagnoses with current DSM or ICD code(s), including axes 1 through 5, and the highest GAF in the past year;

(e) Treatment plan based on diagnoses and related symptoms, to include:

(i) Specific treatment goals you and the client have set;

(ii) Treatment strategies to achieve the goals;

(iii) How you will measure progress toward the goals; and

(iv) Any auxiliary care that will be incorporated.

(f) A description of your assessment of the client's treatment prognosis, as well as any extenuating circumstances and/or barriers that might affect treatment progress; and

~~(g) ((An estimate of time loss from work as a result of the crime injury, if any. Provide an estimate of when the individual will return to work, why they are unable to work, the extent of impairment and the prognosis for future occupational functioning.))~~ If the claimant is unable to work as a result of the crime injury, provide an estimate of when the claimant will return to work and why they are unable to work.

(3) **Progress note: Form III:** This report must be completed **after session fifteen has been conducted**, and must contain:

(a) Whether there has been substantial progress towards recovery for the crime related condition(s);

(b) If you expect treatment will be completed within thirty visits (for adults) or forty visits (for children); and

(c) What complicating or confounding issues are hindering recovery.

(4) **Treatment report: Form IV:** This report must be completed for authorization for **treatment beyond thirty sessions for adults or forty sessions for children, and again for authorization if treatment will go beyond fifty sessions for adults or sixty sessions for children. Form IV** must contain:

(a) The diagnoses at treatment onset with current DSM or ICD code(s), including axes 1 through 5, and the highest GAF in the past year;

(b) The current diagnoses, if different now, with current DSM or ICD code(s), including axes 1 through 5, and the highest GAF in the past year; and

(c) Proposed plan for treatment and number of sessions requested, and an explanation of:

- (i) Substantial progress toward treatment goals;
- (ii) Partial progress toward treatment goals; or
- (iii) Little or no progress toward treatment goals.

~~(5) ((Treatment report: Form V): This report must be completed for authorization for treatment beyond fifty sessions for adults or sixty sessions for children, and must contain:~~

~~(a) The diagnoses at treatment onset with current DSM or ICD code(s), including axes 1 through 5, and the highest GAF in the past year;~~

~~(b) The current diagnoses, if different now, with current DSM or ICD code(s), including axes 1 through 5, and the highest GAF in the past year;~~

~~(c) Proposed plan for treatment and number of sessions requested, and an explanation of:~~

- ~~(i) Substantial progress toward treatment goals;~~
- ~~(ii) Partial progress toward treatment goals; or~~
- ~~(iii) Little or no progress toward treatment goals.~~

~~(6)) Termination report: Form ((VI)) V: If you discontinue treatment of a client for any reason, a termination report should be completed within sixty days of the client's last visit, and must contain:~~

- ~~(a) Date of last session;~~
- ~~(b) Diagnosis at the time client stopped treatment;~~
- ~~(c) Reason for termination (e.g., goals achieved, client terminated treatment, client relocated, referred to other services, etc.); and~~

~~(d) At this point in time do you believe there is any permanent loss in functioning as a result of the crime injury? If yes, describe symptoms based on diagnostic criteria for a DSM diagnosis.~~

~~((7)) (6) Reopening application: This application is required to reopen a claim that has been closed more than ninety days, to demonstrate a worsening of the client's condition and a need for treatment. Benefits are limited to fifty thousand dollars per claim. If the claimant has met or exceeded the maximum benefit, we will be unable to pay for reopening exams or diagnostic tests. If the benefits paid on this claim are less than the fifty thousand dollar maximum benefit, we will reimburse you for filing the application, for an office visit, and diagnostic studies needed to complete the application up to the fifty thousand dollar maximum benefit. No other benefits will be paid until a decision is made on the reopening. If the claim is reopened, we will pay benefits for a maximum of sixty days prior to the date we received the reopening application.~~

AMENDATORY SECTION (Amending WSR 99-20-031, filed 9/29/99, effective 11/1/99)

**WAC 296-31-065 Can my client be referred for a consultation?** (1) There may be instances when the ~~((client's accepted mental health condition presents a diagnostic or therapeutic challenge. In such cases, you or the department may refer the client for a consultation or you may ask the department for an independent mental health examination))~~ department or the claimant's mental health provider may want to refer the claimant for a consultation. For example, if

the claimant's accepted mental health condition presents a diagnostic or therapeutic challenge, or if the department needs additional information to make a decision on the claim.

(2) There are two levels of consultations that can be performed: Limited and extensive. Descriptions and procedure codes are included in the *Crime Victims Compensation Program Mental Health ((Treatment Rules and)) Fee((s)) Schedule and Billing Guidelines.*

(3) The consultant will be required to submit a report to the department that contains the following elements:

- ~~(a) The reason(s) for the consultation referral; ((and))~~
- ~~(b) Consultants related recommendations;~~
- (c) Other information as requested by the department.

(4) Authorization from the department is required for:

(a) More than two consultations before the thirtieth session for adults or fortieth session for children; and

(b) More than one consultation between thirty and fifty sessions for adults or between forty and sixty sessions for children.

(5) You may **not** make a referral for a consultation if:

(a) An independent ~~((mental health))~~ medical examination has been scheduled;

(b) A consultation has been scheduled by the department;

(c) Claim reopening is pending; or

~~((e))~~ (d) The claim is closed.

Note: The consultant must meet provider registration requirements per WAC 296-31-030.

AMENDATORY SECTION (Amending WSR 99-20-031, filed 9/29/99, effective 11/1/99)

**WAC 296-31-067 When is concurrent treatment allowed?** (1) In some cases, treatment by more than one provider may be allowed by the crime victims compensation program. We may authorize concurrent treatment on an individual basis:

(a) If the accepted condition requires specialty or multi-disciplinary care.

Note: Individual and group counseling sessions given by more than one provider is not concurrent treatment.

(b) If we receive and approve your written request that contains:

(i) The name, address, discipline, and specialty of each provider requested to assist in treating the client;

(ii) An outline of each provider's responsibility in the case; and

(iii) An estimated length for the period of concurrent treatment.

(2) If we approve concurrent treatment, we will recognize one primary attending mental health treatment provider. That provider will be responsible for:

(a) Directing the overall treatment program for the client;

(b) Providing us with copies of all reports received from involved providers; and

(c) In ~~((time))~~ wage loss cases, providing us with adequate evidence certifying the claimant's inability to work.

AMENDATORY SECTION (Amending WSR 99-20-031, filed 9/29/99, effective 11/1/99)

**WAC 296-31-068 When can a ((client)) claimant transfer providers?** (1) RCW ((51.36.010)) 7.68.095 provides that ((clients)) claimants are entitled to a free choice of attending providers, who are registered with the department, subject to the limits of RCW 7.68.130 and the requirements of the claimant's public or private insurance. The provider must meet registration requirements of WAC 296-31-030.

(2) The department must be notified if a ((client)) claimant changes providers.

(3) We may require a ((client)) claimant to select another provider for treatment under the following conditions:

(a) When a provider, qualified and available to provide treatment, is more conveniently located;

(b) When the attending provider fails to comply with our rules;

(c) Subject to the limits of RCW 7.68.130 outlined in subsection (1) of this section.

AMENDATORY SECTION (Amending WSR 00-03-056, filed 1/14/00, effective 2/14/00)

**WAC 296-31-074 What if ((my patient)) the claimant has an unrelated condition?** (1) You must immediately notify us when you are treating an unrelated condition concurrently with an accepted condition and provide us with the following information:

(a) Diagnosis and/or nature of unrelated condition;

(b) Treatment being provided; and

(c) The effect, if any, on the accepted condition.

(2) Temporary treatment of an unrelated condition may be allowed and payment for service authorized if:

(a) We approve your request for authorization prior to treatment;

(b) You give us a thorough explanation of how the unrelated condition is affecting the accepted condition;

(c) Treatment of the unrelated condition is retarding recovery of the accepted condition; and

(d) We receive monthly reports from you, outlining treatment and its effect on both the unrelated and accepted conditions.

(3) We will not approve or pay for treatment of:

(a) An unrelated condition that has no influence or no longer influences the existing condition.

(b) A preexisting unrelated condition that was treated prior to acceptance of the crime victim's claim, unless it is retarding recovery of the accepted condition.

AMENDATORY SECTION (Amending WSR 99-07-004, filed 3/4/99, effective 4/4/99)

**WAC 296-31-075 What is excess recovery?** The remaining balance of a recovery, which is paid to the ((victim)) claimant but must be used to offset future payment of benefits.

**How does excess effect the bill payment process?**

(1) When an excess recovery exists, the department is not responsible for payment of bills.

(2) The provider must bill the department in accordance with the department's medical aid rules and maximum fee schedules.

(3) The department will:

(a) Determine the amount payable according to the fee schedule;

(b) Credit the excess recovery with the amount payable; and

(c) Send the provider a remittance advice showing the amount due from the ((victim)) claimant.

(4) The ((victim)) claimant must pay the provider in accordance with the remittance advice.

(5) When the excess is reduced to zero the department will resume responsibility for payment of bills.

REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 296-31-040	Can the department purchase or authorize a special service or treatment that does not appear in its fee schedule?
WAC 296-31-057	Can the department penalize a provider?
WAC 296-31-069	For what reasons may the department require independent mental health or independent medical evaluations be obtained?
WAC 296-31-06901	What is required in an independent mental health evaluation report?
WAC 296-31-06903	Who may perform independent mental health evaluations for the crime victims compensation program?
WAC 296-31-06905	How does a provider become an approved examiner to perform independent mental health evaluations for the crime victims compensation program?
WAC 296-31-06907	What factors does the crime victims compensation program consider in approving or removing examiners from the approved examiners list?
WAC 296-31-06909	Is there a fee schedule for independent mental health evaluations?
WAC 296-31-070	What are my general obligations as an approved mental health provider?

AMENDATORY SECTION (Amending WSR 02-06-024, filed 2/25/02, effective 3/28/02)

**WAC 296-33-010 Attendant services. (1) What are attendant services?**

Attendant services are proper and necessary personal care services (custodial care) provided to maintain the ~~((victim))~~ claimant in their residence.

**(2) Who may receive attendant services?**

~~((Victims))~~ Claimants who are temporarily or permanently totally disabled and rendered physically unable to care for themselves due to the crime may receive attendant services.

**(3) Is prior authorization required for attendant services?**

Yes. To be covered by the crime victims compensation program, attendant services must be requested by the attending physician and authorized by the department before services begin.

**(4) Am I required to use other insurance coverage before the crime victims compensation program will cover attendant services?**

Yes, all other insurances both private and public must be used first.

**(5) When will the crime victims program stop paying for attendant care services?**

The program will stop payment of attendant care services if the service is no longer medically necessary, or the maximum benefit of fifty thousand dollars is reached.

**(6) What attendant services does the crime victims program cover?**

The program covers proper and necessary attendant services that are provided consistent with the ~~((victim's))~~ claimant's needs, abilities and safety. Only attendant services that are necessary due to the physical restrictions caused by the crime are covered.

The following are examples of attendant services that may be covered:

- Bathing and personal hygiene;
- Dressing;
- Administration of medications;
- Specialized skin care, including changing or caring for dressings or ostomies;
  - Tube feeding;
  - Feeding assistance (not meal preparation);
  - Mobility assistance, including walking, toileting and other transfers;
  - Turning and positioning;
  - Bowel and incontinent care; and
  - Assistance with basic range of motion exercises.

~~((6))~~ **(7) What attendant services are not covered?**

Services the department considers everyday environmental needs, unrelated to the medical needs of the ~~((victim))~~ claimant, are not covered. The following are examples of some chore services that are not covered:

- Housecleaning;
- Laundry;
- Shopping;
- Meal planning and preparation;
- Transportation of the ~~((victim))~~ claimant;

- Errands for the ~~((victim))~~ claimant;
- Recreational activities;
- Yard work;
- Child care.

~~((7))~~ **(8) Will the crime victims compensation program review the attendant services being provided?**

Yes. Periodic evaluations by the crime victims compensation program or its designee will be performed. Evaluations may include, but not be limited to, a medical records review and an on-site review of appropriate attendant services consistent with the ~~((victim's))~~ claimant's needs, ability, and safety.

~~((8))~~ **(9) Who is eligible to become a provider of attendant services?**

~~((Any person eighteen years of age and over that maintains an active provider account with the crime victims compensation program. Attendant service providers can be family members or others who the victim hires to perform non-skilled home nursing services.~~

~~(9) Is my attendant service provider(s) an employee(s) of the crime victims compensation program?~~

~~No. Even though the crime victims compensation program is required by the federal government to withhold certain payroll taxes from moneys paid to some nonagency providers, the victim is the common law employer of attendant service provider(s).)~~ Attendant services must be provided through and agency licensed, certified or registered to provide home care or home health services.

**(10) How can a provider obtain a provider account number from the department?**

In order to receive a provider account number from the department, a provider must:

- Complete a provider account application;
- Sign a provider agreement;
- Provide a copy of any practice or other license held;
- Complete, sign and return Form W-9; and
- Meet the department's provider eligibility requirements.

Note: A provider account number is required to receive payment from the department but is not a guarantee of payment for services.

**(11) How many hours will be authorized for attendant services?**

The crime victims compensation program will determine the maximum hours of authorized care based on an independent nursing assessment conducted in the ~~((victim's))~~ claimant's residence. More than one provider may be authorized, based on the ~~((victim's))~~ claimant's needs and the availability of providers. Attendant service providers are limited to a maximum of seventy hours per week per provider.

**(12) What are the provider account status definitions?**

- Active - Account information is current and provider is eligible to receive payment.
- Inactive - Account is not eligible to receive payment based on action by the department or at provider request. These accounts can be reactivated.
- Terminated - Account is not eligible to receive payment based on action by the department or at provider request. These accounts cannot be reactivated.

**(13) When may the department inactivate a provider account?**

The department may inactivate a provider account when:

- There has been no billing activity on the account for ~~((thirty-six))~~ eighteen months; or
- The provider requests inactivation; or
- Provider communications are returned due to address changes; or
- The department changes the provider application or application procedures; or
- Provider does not comply with department request to update information.

**(14) When may the department terminate a provider account?**

The department may terminate a provider account when:

- The provider is found ineligible to treat per department rules; or
- The provider requests termination; or
- The provider dies or is no longer in active business status.

**(15) How can a provider reactivate a provider account?**

To reactivate a provider account, the provider may call or write the department. The department may require the provider to update the provider application and/or agreement or complete other needed forms prior to reactivation. Account reactivation is subject to department review. If a provider account has been terminated, a new provider application will be required.

**WSR 12-16-070**  
**PROPOSED RULES**  
**PROFESSIONAL EDUCATOR**  
**STANDARDS BOARD**

[Filed July 31, 2012, 10:34 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-09-073.

Title of Rule and Other Identifying Information: Amends WAC 181-78A-105 to clarify procedures to initial approval request for an educator preparation program. Technical edits to outdated language.

Hearing Location(s): Red Lion at the Park, 303 West North River Drive, Spokane, WA 99201, on September 20, 2012, at 8:30.

Date of Intended Adoption: September 20, 2012.

Submit Written Comments to: David Brenna, Old Capitol Building, 600 Washington Street S.E., Room 400, P.O. Box 47236, Olympia, WA 98504, e-mail david.brenna@k12.wa.us, fax (360) 586-4548, by September 13, 2012.

Assistance for Persons with Disabilities: Contact David Brenna by September 13, 2012, (360) 725-6238.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Removes timeline requirements for programs receiving initial support for seeking approval status. Technical corrections.

Reasons Supporting Proposal: Simplifies procedures.

Statutory Authority for Adoption: Chapter 28A.410 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: [Professional educator standards board], governmental.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: David Brenna, 600 Washington Street South, Olympia, WA 98504, (360) 725-6238.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The proposed amendment does not have an impact on small business and therefore does not meet the requirements for a statement under RCW 19.85.030 (1) or (2).

A cost-benefit analysis is required under RCW 34.05.-328. A preliminary cost-benefit analysis may be obtained by contacting David Brenna, 600 Washington Street S.E., Olympia, WA 98504, phone (360) 725-6238, fax (360) 586-4548, e-mail david.brenna@k12.wa.us.

July 31, 2012

David Brenna

Senior Policy Analyst

AMENDATORY SECTION (Amending WSR 11-15-049, filed 7/15/11, effective 8/15/11)

**WAC 181-78A-105 Procedures for initial approval of an educator preparation program.** Each institution or organization desiring to establish a preparation program shall comply with the following:

(1) ~~((Advise the professional educator standards board of its desire to establish a preparation program.))~~ Submit a form declaring an intent to offer a new educator certification program.

(a) The declaration of intent will be posted on the professional educator standards board web site as public notice.

(b) The program will be contacted to begin the preproposal.

(2) Develop ~~((with the assistance of the professional education advisory board))~~ a written ~~((preproposal))~~ plan which addresses all preproposal components ~~((adopted and))~~ published by the professional educator standards board ~~((and))~~.

(a) Submit such plan to the designated official of the professional educator standards board for review and comment.

~~((Submit such plan))~~ (b) After the designated official verifies the preproposal is complete, the preproposal will be brought to the professional educator standards board.

(3) The institution or organization may be granted approval for full proposal development or denied approval of the preproposal.

(a) If denied, the institution or organization may resubmit its plan based upon suggestions of the professional educator standards board.

~~((a))~~ (b) If the preproposal is approved, the institution or organization shall comply with the following:

(i) Establish the appropriate professional education advisory board pursuant to WAC 181-78A-205;

(ii) Develop with assistance of the professional education advisory board a written plan which ~~((includes the following))~~ addresses all final proposal components including:



~~(A) ((Timelines for the implementation of all applicable program approval standards during the first year of the program;~~

~~(B) The criteria that the program will use to assess, in multiple ways over time, its candidates' knowledge and skills including evidence related to positive impact on student learning (WAC 181-78A-205(4));~~

~~(C)) How the professional education advisory board was involved in program development, including a letter of support; and~~

~~((D)) (B) Letters of support from partnership districts and/or other agencies.~~

(iii) Present the written plan to the professional educator standards board.

~~((A)) (4) The program may be ((conditionally)) approved in a specific location(s) for a period of up to twenty-seven months following the beginning of instruction. The institution or organization shall notify the professional educator standards board when instruction has begun((-If not approved, the institution or organization may resubmit its revised plan or request a contested hearing via an appeal team appointed by the professional educator standards board)).~~

If approval is denied, the institution or organization may resubmit its plan based upon the suggestions of the professional educator standards board.

~~((B)) (5) Prior to the expiration of approval, staff of the professional educator standards board shall conduct a site visit and/or other forms of documentation to determine if the program is in full compliance with the ((1997)) program approval standards; provided that ((a college/university)) an institution with an approved residency principal program which adds an approved program administrator program is not required to have a site visit of the program administrator program until the next regularly scheduled site visit of that institution.~~

~~((b) If denied, the institution or organization may resubmit its plan based upon the suggestions of the professional educator standards board.))~~

**WSR 12-16-072**  
**PROPOSED RULES**  
**SUPERINTENDENT OF**  
**PUBLIC INSTRUCTION**

[Filed July 31, 2012, 10:54 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-01-074.

Title of Rule and Other Identifying Information: Chapter 392-142 WAC, Transportation—Replacement and depreciation allocation.

Hearing Location(s): Office of Superintendent of Public Instruction (OSPI), Brouillet Conference, 600 South Washington, Olympia, WA 98504-7200, on September 6, 2012, at 2:00 p.m.

Date of Intended Adoption: September 6, 2012.

Submit Written Comments to: Allan J. Jones, Director, OSPI, Student Transportation, P.O. Box 47200, Olympia,

WA 98504-7200, e-mail allan.jones@k12.wa.us, fax (360) 586-6124, by August 31, 2012.

Assistance for Persons with Disabilities: Contact Wanda Griffin by August 31, 2012, TTY (360) 664-3631 or (360) 725-6132.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Technical corrections and reformatting of sections have been made to clarify the definitions, school bus categories, the calculation of the replacement system for school district-owned school buses, and the calculation of the depreciation system for contractor-owned school buses.

The primary change is to provide payment for school district-owned buses to be made in August instead of September.

Changes were also made to the sections explaining the use of the transportation vehicle fund and improper maintenance and operation of school buses.

Statutory Authority for Adoption: RCW 28A.150.290.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: [OSPI], governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Allan J. Jones, OSPI, Student Transportation, (360) 725-6120; and Enforcement: JoLynn Berge, OSPI, Financial Resources and Governmental Relations, (360) 725-6300.

No small business economic impact statement has been prepared under chapter 19.85 RCW. Was not applicable.

August [July] 31, 2012

Randy Dorn

State Superintendent  
of Public Instruction

AMENDATORY SECTION (Amending WSR 95-17-011, filed 8/4/95, effective 9/4/95)

**WAC 392-142-005 Authority and purpose.** The authority for this chapter is RCW 28A.150.290 which authorizes the superintendent of public instruction to adopt rules and regulations for the proper administration of ~~((chapter 28A.160 RCW, which includes state depreciation and replacement payments for school buses as specified in))~~ RCW 28A.160.195 and 28A.160.200. The purpose of this chapter is to specify and implement the rules for the school bus depreciation and replacement systems.

AMENDATORY SECTION (Amending Order 21, filed 1/2/90, effective 2/2/90)

**WAC 392-142-100 Definitions((—School bus)).** ~~((As used in this chapter, "school bus" means a vehicle:~~

~~(1) With a seating capacity of more than ten persons including the driver;~~

~~(2) Used for transportation of students to and from school or in connection with school activities; and~~

~~(3) That meets the requirement set forth in chapter 392-143 WAC (Transportation—Specifications for school buses-))~~ For the purposes of this chapter, the following definitions apply:

(1) **"Superintendent"** means the superintendent of public instruction.

(2) **"School district"** means a public school district or educational service district.

(3) **"School bus"** means a vehicle:

(a) With a seating capacity of more than ten persons including the driver;

(b) Used for transportation of students to and from school or in connection with school activities; and

(c) That meets the requirements of the school bus specifications manual published by the superintendent.

(4) **"Replacement system"** is the reimbursement process used for school buses when a school district is the legal owner.

(5) **"Depreciation system"** is the reimbursement process used for contractor-owned school buses operated under a contract with a school district to provide regularly scheduled to-and-from student transportation services.

(6) **"School bus categories"** are defined annually by the superintendent, taking into account such factors as student capacity, fuel type, and special equipment.

(7) **"System lifetime"** means the minimum number of months that a category of school bus is expected to be in use as determined by the superintendent.

(8) **"Eligible months"** are defined as the number of months a school bus is eligible for reimbursement payments within a school year. If a newly acquired school bus is eligible for reimbursement, such eligibility is determined by the issue date of the school bus operation permit as defined in WAC 392-143-010(4). If the issue date is prior to the 15th of any month, eligibility begins with the first of the month; otherwise eligibility begins with the first of the following month. The total number of eligible months in all school years shall not be more than the system lifetime.

(9) A school bus is defined as **"improperly maintained or operated"** when it is unable to pass the Washington state patrol inspection process within ninety days of the date requested for presentation. The school district may request the superintendent for an additional ninety days to arrange for repairs to the school bus. Improper operation includes use of a school bus without a valid school bus operation permit issued by the superintendent.

(10) The **"state school bus quote"** means the annual sealed bid process used by the superintendent as authorized by RCW 28A.160.195 to establish prices for school districts to purchase school buses for a school year. School districts may purchase school buses from any school bus dealer's accepted bid.

(11) The **"low price quote"** means the lowest competitive price quote for each category of school bus received from school bus dealers in the state school bus quote. The low price quote is determined prior to the inclusion of any sales or use tax. Included in the low price quote are:

(a) Freight to the school district; and

(b) Cost associated with full payment within thirty days of delivery.

In the state school bus quote process, the superintendent may include options for school districts to purchase that are not included in the low price quote.

(12) **"State-determined purchase price"** is defined as the low price quote including any sales and use taxes at the highest rate that could be charged to any school district in the state by the school bus dealer submitting that quote.

(13) **"Average price"** is defined as the five-year average of the low price quote for each school bus category. The average price is determined using the current and four previous school years' state school bus quote.

(14) **"System price"** means the price used to calculate the payment in a given school year, as follows:

(a) For the replacement system, the system price for a school bus for all years except the final year is the average price. For the final year, the system price is the current state determined purchase price.

(b) For the depreciation system, the system price for a school bus for all years is the first year's state determined purchase price.

(15) **"Total school bus replacement payments"** means the sum of all replacement payments for a school bus for prior school years.

(16) **"Assumed interest earnings"** means the sum of interest which is assumed to be earned on money assumed to be available in the transportation vehicle fund from any prior replacement payments and any previous interest earnings for a school bus. The rate used to calculate assumed interest earnings shall be the average of the ninety-day treasury bill rate during the previous state fiscal year calculated on the basis of simple interest.

(17) The **"salvage value"** of a school bus is defined as twenty-five percent of the first year's state determined purchase price divided by the system lifetime in years.

**AMENDATORY SECTION** (Amending WSR 04-08-116, filed 4/6/04, effective 5/7/04)

**WAC 392-142-205 ((Determination of) Assignment and changes to school bus categories ((by the superintendent of public instruction)).** ((The superintendent of public instruction, in consultation with the regional transportation coordinators of the educational service districts, shall annually establish a minimum number of school bus categories considering student capacity and type.)) To determine the average price for a school bus assigned to a category that was not defined in the previous four years, the superintendent shall assign the school bus to the most appropriate category. When a school bus category is no longer available or when the definition of a school bus category is changed, the superintendent shall place any school bus still eligible for reimbursement into the most appropriate existing category. The superintendent ((of public instruction will)) shall provide a public ((hearing)) meeting for interested parties prior to ((the adoption of)) any change in school bus categories.

**NEW SECTION**

**WAC 392-142-214 Alternative bid process.** School districts are not required to use the state school bus quote process to purchase a school bus. However, a school district using another process shall only be reimbursed for a school bus if the school district uses a lowest-price competitive bid process conducted in accordance with the requirements of

RCW 28A.335.190. Regardless of purchase process, all school buses must meet the requirements established in the school bus specifications manual.

AMENDATORY SECTION (Amending WSR 05-19-072, filed 9/16/05, effective 10/17/05)

**WAC 392-142-225 Placement of used school buses on the state (~~replacement or depreciation schedules~~) reimbursement system.** A used school bus not previously on the reimbursement system shall be placed on the (~~state replacement or depreciation schedule~~) reimbursement system as if it had been issued a school bus operation permit on the first of September in the year of manufacture (~~, including an estimate by the superintendent of public instruction of:~~

(1) ~~Prior school years total state replacement or depreciation payments;~~

(2) ~~Assumed interest earnings (if purchased by a school district); and~~

(3) ~~Salvage value (if purchased by a school district)).~~ A used school bus previously on the reimbursement system shall be placed on the system using the original initial eligible month and assuming no break in eligible months. The superintendent shall calculate reimbursement for used school buses using the assumption that all possible prior system payments were paid along with any assumed interest earnings.

AMENDATORY SECTION (Amending WSR 05-19-072, filed 9/16/05, effective 10/17/05)

**WAC 392-142-240 Calculation of (~~annual state replacement payment for district owned school buses~~) replacement system payments.** (~~The superintendent of public instruction shall~~) To calculate (each school district's annual state) the replacement system payment for a school district-owned school (buses as follows) bus, the superintendent shall:

(1) (~~For district owned school buses issued a school bus operation permit prior to the fifteenth of any month of the current school year:~~

(a) ~~Place each school bus in the appropriate school bus category set forth in WAC 392-142-155;~~

(b) ~~Divide the system price by the useful lifetime in months as determined in (a) of this subsection; and~~

(c) ~~Multiply the result obtained in (b) of this subsection by the number of months remaining in the school year.~~

(2) ~~For school buses issued a school bus operation permit prior to the current school year:~~

(a) ~~Place each school bus in the appropriate school bus category set forth in WAC 392-142-155;~~

(b) ~~Divide the system price by the useful lifetime in months determined in (a) of this subsection;~~

(c) ~~Multiply the result obtained in (b) of this subsection by the total number of months the school bus has been on the replacement schedule including the months for the current school year;~~

(d) ~~Subtract from the result obtained in (c) of this subsection the total school bus replacement payments made in prior school years;~~

(e) ~~Subtract from the result obtained in (c) of this subsection the assumed interest earnings; and~~

(f) ~~Subtract from the result obtained in (c) of this subsection the salvage value of the school bus if the current school year is the final year of the vehicle's useful life.)~~ Assign the school bus to the appropriate category:

(2) Divide the current year system price by the system lifetime;

(3) Multiply by the total number of past and current year eligible months;

(4) Subtract the total amount of all school bus replacement payments made in prior school years (if any);

(5) Subtract the assumed interest earnings (if any); and

(6) Subtract the salvage value if the current school year is the final year of the school bus's system life.

AMENDATORY SECTION (Amending WSR 05-19-072, filed 9/16/05, effective 10/17/05)

**WAC 392-142-245 Calculation of (~~annual state~~) depreciation system payments (~~for contractor owned school buses~~).** (~~The superintendent of public instruction shall~~) To calculate (each school district's state) the depreciation system payment for a contractor-owned school (buses as follows) bus, the superintendent shall:

(1) (~~For contractor owned school buses issued a school bus operation permit prior to the fifteenth of the month of the current school year:~~

(a) ~~Place each bus in the appropriate school bus category set forth in WAC 392-142-155;~~

(b) ~~Divide the state determined purchase price by the useful lifetime in months determined in (a) of this subsection; and~~

(c) ~~Multiply the result obtained in (b) of this subsection by the number of months remaining in the school year.~~

(2) ~~For contractor owned school buses issued a school bus operation permit in a prior school year:~~

(a) ~~Place each school bus in the appropriate school bus category set forth in WAC 392-142-155;~~

(b) ~~Divide the state determined purchase price at the time the school bus was purchased by the useful lifetime in months for the appropriate school bus category set forth in WAC 392-142-155;~~

(c) ~~Calculate the total number of months the bus is eligible for depreciation payment in the current school year; and~~

(d) ~~Multiply the amount calculated in (b) of this subsection by the number of months calculated in (c) of this subsection.)~~ Assign the school bus to the appropriate category:

(2) Divide the first year state supported price by the system lifetime; and

(3) Multiply the result by the number of eligible months in the current school year.

AMENDATORY SECTION (Amending WSR 05-19-072, filed 9/16/05, effective 10/17/05)

**WAC 392-142-250 Calculation and allocation (~~of state replacement or depreciation payment~~) schedule.** The superintendent (~~of public instruction shall apportion school bus replacement or depreciation payments each school year calculated as follows:~~

(1) ~~For school district owned vehicles:~~

(a) ~~The September apportionment payment for those school buses issued school bus operating permits in prior school years; or~~

(b) ~~The first apportionment payment after the issuance of the school bus operating permit for school buses purchased in the current school year; or~~

~~(2) For contractor-owned vehicles: According to)) shall calculate annual school bus reimbursement payments for existing school buses by September 15th of each year. Calculation of reimbursement for a school bus entering the system during a school year shall be based on the number of remaining eligible months in the school year. The superintendent shall apportion school bus reimbursement payments as follows:~~

~~(1) Replacement system payments shall be distributed to school districts on the final business day of August of each year; and~~

~~(2) Depreciation system payments shall be distributed to school districts in accordance with the schedule set forth in RCW 28A.510.250.~~

AMENDATORY SECTION (Amending WSR 10-02-088, filed 1/6/10, effective 2/6/10)

**WAC 392-142-255 Deposit of payments in the transportation vehicle fund.** School districts shall deposit net proceeds for the rent, sale, ~~((or))~~ lease, or other disposition of school buses and replacement payments for school district-owned vehicles in the transportation vehicle fund. ~~((School districts shall not deposit school bus depreciation payments for contractor-owned vehicles))~~ Depreciation system payments are not required to be deposited in the transportation vehicle fund.

AMENDATORY SECTION (Amending WSR 10-02-088, filed 1/6/10, effective 2/6/10)

**WAC 392-142-260 Allowable uses of the transportation vehicle fund.** School districts shall only use money~~((s))~~ in the transportation vehicle fund for the following purposes:

(1) The purchase of school buses;

(2) Performing major repairs ~~((or))~~ to a school bus receiving prior approval by the superintendent ~~((of public instruction.~~

~~(3) The transfer of moneys from the transportation vehicle fund to the debt service fund exclusively for the payment of debt and interest incurred by the transportation vehicle fund shall not be considered to be a transfer of moneys from the transportation vehicle fund to any other fund within the meaning of RCW 28A.160.130))~~

Funds may be transferred from the transportation vehicle fund to the debt service fund for the payment of debt and interest associated with purchase agreements for school buses, including lease purchase agreements.

AMENDATORY SECTION (Amending WSR 08-19-016, filed 9/5/08, effective 10/6/08)

**WAC 392-142-265 Improper maintenance and operation.** ~~((1) To the extent possible, school districts shall operate vehicles not less than the number of years of useful life-~~

~~time now, or hereafter, assigned to the category of vehicles by the superintendent of public instruction.~~

~~(2) A school bus that continues to possess a valid operation permit and operates its useful vehicle life shall be considered to be properly maintained in accordance with general accepted maintenance and operation standards. A school bus which does not operate its useful vehicle life shall be considered as not being properly maintained in accordance with generally accepted maintenance and operation standards unless proven otherwise by the school district. Prima facie evidence of such proof shall include unforeseen events which shorten the useful vehicle life, including but not limited to, fire, flood, explosion, storm, earthquake, or volcanic eruption.~~

~~(3) If a district fails to follow generally accepted standards of maintenance and operation or, if a district disposes of a bus prior to the end of its useful life time, the superintendent of public instruction shall discontinue reimbursement system payments, including adjusting the amount of the current year payment to be the final payment by:~~

~~(a) Determining the total number of months the bus operated;~~

~~(b) Dividing the number of months the bus operated by the "useful life" of the bus, in months. Multiply the result by the "state-determined purchase price" for the current year, than subtract previous "total school bus replacement payments," "assumed interest earnings," and the "salvage value.")~~ (1) If a school bus is otherwise eligible for reimbursement payments and is determined to have been improperly maintained or operated, the superintendent shall discontinue reimbursement system payments effective the first of the month following the initial determination. The superintendent shall use the following process for any future payments:

(a) For school buses that are restored to operational condition, the superintendent shall:

(i) Return the school bus to the reimbursement system effective the first of the month following the date of the Washington state patrol inspection; and

(ii) Not provide reimbursement for any months the school bus was determined to have been improperly maintained or operated. However, such months shall be included as eligible months in the calculation of the system lifetime of the vehicle.

(b) For school buses that the school district disposes of without returning the vehicle to operational condition, the superintendent shall:

(i) Divide the total number of eligible months by the system life;

(ii) Multiplying the result by the current state-determined purchase price;

(iii) Subtract the total of all previous school bus replacement payments;

(iv) Subtract the total assumed interest earnings; and

(v) Subtract the salvage value.

(2) Such factors as fire, flood, explosion, storm, earthquake, or volcanic eruption shall not result in a school bus being determined to have been improperly maintained or operated. However, reimbursement payments shall be discontinued effective the first of the month following any such

occurrence. Any future payments shall be calculated using the procedures listed in subsection (1) of this section. The superintendent shall assume any such school bus will be returned to service until such time as the school district disposes of the school bus.

(3) If a school district disposes of a school bus prior to the end of its useful lifetime, the superintendent shall discontinue reimbursement system payments as of the month of the sale of the school bus and adjust any final payment using the process in subsection (1) of this section.

(4) If a school district operates a school bus without an operation permit, the superintendent shall not provide reimbursement for that time period. However, any such months shall be included as eligible months in the calculation of the system lifetime of the vehicle.

AMENDATORY SECTION (Amending WSR 03-13-049, filed 6/12/03, effective 7/13/03)

**WAC 392-142-270 Disposition of school buses.** ~~((Each))~~ When a school district sells or otherwise disposes of a school bus, the school district shall notify the superintendent ((of public instruction of the disposition of a school bus on SPI Form 1020)) within thirty days ((of this action)) using SPI Form 1020B.

**REPEALER**

The following sections of the Washington Administrative Code are repealed:

- WAC 392-142-010 Purpose.
- WAC 392-142-075 Definition—School year.
- WAC 392-142-080 Definition—Current school year.
- WAC 392-142-085 Definition—Prior school year.
- WAC 392-142-095 Definition—State supported competitive specifications.
- WAC 392-142-105 Definition—District-owned school bus.
- WAC 392-142-110 Definition—Contractor-owned school bus.
- WAC 392-142-125 Definition—Student capacity.
- WAC 392-142-145 Definition—Useful life.
- WAC 392-142-155 Definition—School bus categories.
- WAC 392-142-160 Definition—Vendor bid proposal.
- WAC 392-142-162 Definition—Competitive price quote.
- WAC 392-142-163 Definition—School bus dealer.

- WAC 392-142-165 Definition—State-determined purchase price.
- WAC 392-142-171 Definition—System price.
- WAC 392-142-172 Definition—Average price.
- WAC 392-142-180 Definition—Total school bus replacement payments.
- WAC 392-142-185 Definition—Assumed interest earnings.
- WAC 392-142-190 Definition—Salvage value.
- WAC 392-142-195 Definition—SPI Form 1020.
- WAC 392-142-210 State-determined purchase prices by the superintendent of public instruction.
- WAC 392-142-212 Obtaining competitive price quotes.
- WAC 392-142-213 Purchase of school buses by school districts.
- WAC 392-142-231 Calculation of system price.

**WSR 12-16-074**

**PROPOSED RULES**

**HEALTH CARE AUTHORITY**

(Public Employees Benefits Board)

[PEBB Admin. # 2012-01—Filed July 31, 2012, 11:36 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-09-064.

Title of Rule and Other Identifying Information: Rules related to enrollment in chapter 182-08 WAC; eligibility in chapter 182-12 WAC; and appeals in chapter 182-16 WAC.

Hearing Location(s): Health Care Authority (HCA), Cherry Street Plaza Building, Conference Room, 626 8th Avenue, Olympia, WA 98504 (metered public parking is available street side around building. A map is available at <http://maa.dshs.wa.gov/pdf/CherryStreetDirectionsNMap.pdf> or directions can be obtained by calling (360) 725-1000, on September 4, 2012, at 10:00 a.m.

Date of Intended Adoption: Not sooner than September 5, 2012.

Submit Written Comments to: HCA Rules Coordinator, P.O. Box 45504, Olympia, WA 98504-5504, delivery 626 8th Avenue, Olympia, WA 98504, e-mail [arc@hca.wa.gov](mailto:arc@hca.wa.gov), fax (360) 586-9727, by September 4, 2012.

Assistance for Persons with Disabilities: Contact Kelly Richters by August 28, 2012, TTY (800) 848-5429 or (360) 725-1307 or e-mail [kelly.richters@hca.wa.gov](mailto:kelly.richters@hca.wa.gov).

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Amends existing rules and adds new rules in Title 182 WAC specific to the public employees benefits board (PEBB) program with the following effect:

1. Makes a technical amendment to domestic partner eligibility to comply with reciprocity requirements in state statute and clarify continuation coverage upon dissolution of a domestic partnership or same-sex marriage.

2. Amends employer group rules to implement E2SHB 2319 authorizing the health benefit exchange to participate in PEBB benefits. Adds new rules detailing the employer group application process, evaluation criteria and participation requirements.

3. Amends special open enrollment rules to include certain residence changes, allow a change in enrollment consistent with an annual open enrollment change under another employer's plan and update the conditions that may create a continuity of care issue.

4. Adds a new rule to comply with federal and state laws regarding National Medical Support notices and court orders.

5. Makes technical amendments to retiree eligibility to remove an old provision, provide clarity and correct technical errors.

6. Amends appeal rules to allow for indexing of significant administrative decisions, make a technical correction and allow for an extension to the deadline for the PEBB appeals committee to issue a written decision.

7. In addition to these specific changes, HCA conducted a full review of these chapters and made some changes for readability.

Reasons Supporting Proposal: Compliance with federal regulation, state law and administrative hearing decision.

Statutory Authority for Adoption: RCW 41.05.160.

Statute Being Implemented: Chapter 3, Laws of 2012 (ESSB 6239); chapter 87, Laws of 2012 (E2SHB 2319).

Rule is necessary because of federal law, Notice - 45 C.R.F. [C.F.R.] 303.32.

Name of Proponent: HCA, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Barbara Scott, Cherry Street Plaza, 626 8th Avenue S.E., Olympia, WA, (360) 725-0830; and Enforcement: Mary Fliss, Cherry Street Plaza, 626 8th Avenue S.E., Olympia, WA, (360) 725-0822.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The joint administrative rules review committee has not requested the filing of a small business economic impact statement, and there will be no costs to small businesses.

A cost-benefit analysis is not required under RCW 34.05.328. RCW 34.05.328 does not apply to HCA rules unless requested by the joint administrative rules [review] committee or applied voluntarily.

July 31, 2012  
Kevin M. Sullivan  
Rules Coordinator

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-08-015 Definitions.** The following definitions apply throughout this chapter unless the context clearly indicates other meaning:

(~~"Agency"~~) "Authority" or "HCA" means the health care authority.

"Benefits eligible position" means any position held by an employee who is eligible for benefits under WAC 182-12-114, with the exception of employees who establish eligibility under WAC 182-12-114 (2) or (3)(a)(ii).

"Board" means the public employees benefits board established under provisions of RCW 41.05.055.

"Comprehensive employer-sponsored medical" includes insurance coverage continued by the employee or their dependent under COBRA. It does not include an employer's retiree coverage, with the exception of a federal retiree plan.

"Creditable coverage" means coverage that meets the definition of "creditable coverage" under RCW 48.66.020 (13)(a) and includes payment of medical and hospital benefits.

"Defer" means to postpone enrollment or interrupt enrollment in a PEBB medical insurance by a retiree or eligible survivor.

"Dependent" means a person who meets eligibility requirements in WAC 182-12-260.

"Dependent care assistance program" or "DCAP" means a benefit plan whereby state and public employees may pay for certain employment related dependent care with pretax dollars as provided in the salary reduction plan authorized in chapter 41.05 RCW.

"Director" means the director of the ~~((health care))~~ authority ~~((HCA) or designee))~~.

"Effective date of enrollment" means the first date when an enrollee is entitled to receive covered benefits.

"Employer group" means those employee organizations representing state civil service employees, counties, municipalities, political subdivisions, the Washington health benefit exchange, tribal governments, school districts, and educational service districts participating in PEBB insurance coverage under contractual agreement as described in WAC ~~((182-08-230))~~ 182-08-245.

"Employing agency" means a division, department, or separate agency of state government, including an institution of higher education; a county, municipality, school district, educational service district, or other political subdivision; or a tribal government covered by chapter 41.05 RCW.

"Enrollee" means a person who meets all eligibility requirements defined in chapter 182-12 WAC, who is enrolled in PEBB benefits, and for whom applicable premium payments have been made.

"Faculty" means an academic employee of an institution of higher education whose workload is not defined by work hours but whose appointment, workload, and duties directly serve the institution's academic mission; as determined under the authority of its enabling statutes, its governing body, and any applicable collective bargaining agreement.

"Health plan" or "plan" means a medical or dental plan developed by the public employees benefits board and provided by a contracted vendor or self-insured plans administered by the HCA.

"Institutions of higher education" means the state public research universities, the public regional universities, The Evergreen State College, the community and technical colleges, and includes the higher education personnel board and the state board for community and technical colleges.

"Insurance coverage" means any health plan, life insurance, long-term care insurance, (~~long-term disability~~) LTD insurance, or property and casualty insurance administered as a PEBB benefit.

"Layoff," for purposes of this chapter, means a change in employment status due to an employer's lack of funds or an employer's organizational change.

"LTD insurance" includes basic long-term disability insurance paid for by the employing agency and long-term disability insurance offered to employees on an optional basis.

"Life insurance" includes basic life insurance paid for by the employing agency, life insurance offered to employees on an optional basis, and retiree life insurance.

"Medical flexible spending arrangement" or "medical FSA" means a benefit plan whereby state and public employees may reduce their salary before taxes to pay for medical expenses not reimbursed by insurance as provided in the salary reduction plan authorized in chapter 41.05 RCW.

"Open enrollment" means a time period when: Subscribers may apply to transfer their enrollment from one health plan to another; a dependent may be enrolled; a dependent may be removed from coverage; or an employee who previously waived medical may enroll in medical. Open enrollment is also the time when employees may enroll in or change their election under the DCAP, the medical FSA, or the premium payment plan. An "annual" open enrollment, designated by the director, is an open enrollment when all PEBB subscribers may make enrollment changes for the upcoming year. A "special" open enrollment is triggered by a specific life event. For special open enrollment events as they relate to specific PEBB benefits, see WAC 182-08-198, 182-08-199, 182-12-128, 182-12-262.

"PEBB" means the public employees benefits board.

"PEBB appeals committee" means the committee that considers appeals relating to the administration of PEBB benefits by the PEBB program. The director has delegated the authority to hear appeals at the level below an administrative hearing to the PEBB appeals committee.

"PEBB benefits" means one or more insurance coverages or other employee benefits administered by the PEBB program within the (~~HCA~~) health care authority.

"PEBB program" means the program within the HCA which administers insurance and other benefits for eligible employees (~~of the state~~) (as defined in WAC 182-12-114), eligible retired and disabled employees (~~of the state~~) (as defined in WAC 182-12-171), eligible dependents (as defined in WAC 182-12-250 and 182-12-260) and others as defined in RCW 41.05.011.

"Premium payment plan" means a benefit plan whereby state and public employees may pay their share of group health plan premiums with pretax dollars as provided in the salary reduction plan.

"Salary reduction plan" means a benefit plan whereby state and public employees may agree to a reduction of salary on a pretax basis to participate in the DCAP, medical FSA, or premium payment plan as authorized in chapter 41.05 RCW.

"Seasonal employee" means an employee hired to work during a recurring, annual season with a duration of three

months or more, and anticipated to return each season to perform similar work.

"State agency" means an office, department, board, commission, institution, or other separate unit or division, however designated, of the state government and all personnel thereof. It includes the legislature, executive branch, and agencies or courts within the judicial branch, as well as institutions of higher education and any unit of state government established by law.

"Subscriber" means the employee, retiree, COBRA beneficiary or eligible survivor who has been designated by the HCA as the individual to whom the HCA and contracted vendors will issue all notices, information, requests and premium bills on behalf of enrollees.

"Termination of the employment relationship" means that an employee resigns or an employee is terminated and the employing agency has no anticipation that the employee will be rehired.

"Tribal government" means an Indian tribal government as defined in Section 3(32) of the Employee Retirement Income Security Act of 1974 (ERISA), as amended, or an agency or instrumentality of the tribal government, that has government offices principally located in this state.

"Waive" means to interrupt an eligible employee's enrollment in a PEBB health plan because the employee is enrolled in other comprehensive group medical coverage as required under WAC 182-12-128, or is on approved educational leave (~~(see WAC 182-12-128 and)~~) and obtains comprehensive group health plan coverage as allowed under WAC 182-12-136(3).

AMENDATORY SECTION (Amending Order 09-02, filed 11/17/09, effective 1/1/10)

**WAC 182-08-120 Employer contribution.** The employers' contribution must be used to provide insurance coverage for the basic life insurance benefit, the basic long-term disability insurance benefit, medical, and dental, and to establish a reserve for any remaining balance. There is no employer contribution available for any other insurance coverage for employees employed by state agencies.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-08-180 Premium payments and premium refunds.**

**Premium payments.** Public employees benefits board (PEBB) premiums begin to accrue the first of the month in which PEBB insurance coverage is effective.

Premium is due for the entire month of insurance coverage and will not be prorated during any month.

(1) A newly eligible employee must complete the appropriate enrollment forms to enroll or waive coverage within thirty-one days after becoming eligible as described in WAC 182-08-197.

(a) If an employing agency does not notify an employee of his or her eligibility for benefits, as required in WAC 182-12-113, until after the thirty-one-day period has expired, the employing agency must:

(i) Notify the employee of his or her eligibility for PEBB benefits as described in WAC 182-08-197(3); and

(ii) Remit both the employer contribution and the employee contribution for medical premiums from the date benefits begin as described in WAC 182-12-114 to the health care authority (HCA). A state agency may not collect from the employee any portion of the medical premium for months prior to the state agency's notification to the employee.

(b) If an employing agency fails to enroll an employee as required in WAC 182-08-197, the employing agency must:

(i) Correct the enrollment error; and

(ii) Remit both the employer contribution and the employee contribution for medical premiums due for insurance coverage from the date PEBB benefits begin as described in WAC 182-12-114 to the HCA. A state agency may only collect the employee contribution for medical premiums for the three months prior to the month the state agency corrects the error.

(c) If an employee elects optional coverage described in WAC 182-08-197 (2)(a) or (b), the employee is responsible for premiums from the month that the optional coverage begins.

**Premium refunds.** PEBB premiums will be refunded using the following method:

(2) When a subscriber submits an enrollment change affecting subscriber or dependent eligibility, HCA may allow up to three months of accounting adjustments. HCA will refund to the individual or the employing agency any excess premium paid during the three month adjustment period, except as indicated in WAC 182-12-148(4).

(3) If a PEBB subscriber, dependent, or beneficiary submits a written appeal as described in WAC 182-16-025, the PEBB assistant director or the PEBB appeals committee may approve a refund which does not exceed twelve months of premium. The written appeal must provide proof of the following:

Extraordinary circumstances beyond the control of the subscriber, dependent or beneficiary made it virtually impossible to submit the necessary information to accomplish an enrollment change within sixty days after the event that created a change of premium.

(4) If a federal government entity (~~retroactively~~) determines that an enrollee is retroactively enrolled in coverage (for example medicare) the subscriber or beneficiary may be eligible for a refund of all premiums paid during the time he or she was enrolled under the federal program if approved by the PEBB assistant director or designee.

(5) Accounts reflecting an underpayment to HCA must be paid, and are due from the employing agency, subscriber or beneficiary to the HCA. Upon request, the HCA may develop a repayment plan designed to reduce hardship.

(6) HCA errors will be corrected by returning all excess premiums paid by the employing agency, subscriber, or beneficiary.

(7) Employing agency errors will be corrected by returning all excess premiums paid by the employee or beneficiary.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-08-197 When must newly eligible employees, or employees who regain eligibility for the employer contribution, select public employees benefits board (PEBB) benefits and complete enrollment forms?** (1) Employees who are newly eligible for PEBB benefits must complete the appropriate forms indicating enrollment and their health plan choice, or their decision to waive medical under WAC 182-12-128. Employees must return the forms to their employing agency no later than thirty-one days (sixty days for life insurance) after they become eligible for PEBB benefits under WAC 182-12-114. Newly eligible employees who do not return (~~an~~) enrollment forms to their employing agency indicating their medical (~~and~~), dental and LTD choice within thirty-one days and life insurance choice within sixty days will be enrolled (~~in a health plan~~) as follows:

(a) Medical enrollment will be Uniform Medical Plan Classic;

(b) Dental enrollment (if the employer group participates in PEBB dental) will be Uniform Dental Plan; (~~and~~)

(c) Basic life insurance (unless the employing agency does not participate in this PEBB insurance coverage);

(d) Basic long-term disability insurance (unless the employing agency does not participate in this PEBB insurance coverage); and

(e) Dependents will not be enrolled.

(2) Employees who are newly eligible may enroll in optional insurance coverage (except for employees of employer groups that do not participate in life insurance or long-term disability insurance).

(a) To enroll in the amounts of optional life insurance available without health underwriting, employees must return a completed life insurance enrollment form to their employing agency no later than sixty days after becoming eligible for PEBB benefits.

(b) To enroll in optional long-term disability insurance without health underwriting, employees must return a completed long-term disability enrollment form to their employing agency no later than thirty-one days after becoming eligible for PEBB benefits.

(c) Employees may apply for optional life and optional long-term disability insurance at any time by providing evidence of insurability and receiving approval from the contracted vendor.

(3) If an employing agency does not notify a newly eligible employee of his or her eligibility for PEBB benefits, as required in WAC 182-12-113, until after the thirty-one-day period described in subsection (1) of this section has expired, then the following must occur:

(a) The employing agency must notify the employee of his or her eligibility for PEBB benefits and his or her requirement to complete and return enrollment forms.

(b) The employee must complete and return the appropriate forms as follows:

(i) An enrollment form indicating enrollment and health plan choice (if applicable indicating a decision to waive medical) no later than thirty-one days from the date of the employing agency's notice to the employee;



(ii) To enroll in optional coverage, a life insurance enrollment form no later than sixty days from the date of the employing agency's notice to the employee and a long-term disability insurance enrollment form no later than thirty-one days from the date of the employing agency's notice to the employee.

(c) Employees who do not return the appropriate forms to their employing agency indicating their medical and dental choice will be enrolled in a health plan according to subsection (1)(a), (b), and (c) of this section.

(d) Employees who do not return the appropriate forms to their employing agency indicating optional coverage elections, are not eligible to enroll in optional coverage, except as described in subsection (2)(c) of this section.

(4) Employees who are eligible to participate in the state's salary reduction plan (see WAC 182-12-116) will automatically enroll in the premium payment plan upon enrollment in medical so employee medical premiums are taken on a pretax basis. To opt out of the premium payment plan, new employees must complete the appropriate form and return it to their state agency no later than thirty-one days after they become eligible for PEBB benefits.

(5) Employees who are eligible to participate in the state's salary reduction plan may enroll in the state's medical flexible spending arrangement (FSA) or dependent care assistance program (DCAP) or both. To enroll in these optional PEBB benefits, employees must return the appropriate enrollment forms to their state agency or PEBB designee no later than thirty-one days after becoming eligible for PEBB benefits.

(6) The employer contribution toward insurance coverage ends according to WAC 182-12-131. Employees who become newly eligible for the employer contribution enroll as described in subsections (1) and (2) of this section, with the following exceptions in which insurance coverage elections stay the same:

(a) When an employee transfers from one employing agency to another employing agency without a break in state service. This includes movement of employees between any entities described in WAC 182-12-111 and participating in PEBB benefits.

(b) When employees have a break in state service that does not interrupt their employer contribution toward PEBB insurance coverage.

(c) When employees continue insurance coverage by self-paying the full premium under WAC 182-12-133(1) or 182-12-142 and (~~become newly eligible~~) regain eligibility for the employer contribution before the end of the maximum number of months allowed for continuing PEBB health plan enrollment under those rules. Employees who are eligible to continue optional life or optional long-term disability under continuation coverage but discontinue that insurance coverage are subject to the insurance underwriting requirements if they apply for the insurance when they return to work or (~~become eligible again~~) regain eligibility for the employer contribution.

(7) When an employee's employment ends, participation in the state's salary reduction plan ends. If the employee is hired into a new position that is eligible for PEBB benefits in the same year, the employee may not resume participation in

DCAP or medical FSA until the beginning of the next plan year, unless the time between employments is less than thirty days and the employee notifies the new state agency and the DCAP or FSA administrator of his or her employment transfer within the current plan year.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-08-198 When may a subscriber change health plans?** Subscribers may change health plans at the following times:

(1) **During annual open enrollment:** Subscribers may change health plans during the annual open enrollment. The subscriber must submit the appropriate enrollment forms to change health plan no later than the end of the annual open enrollment. Enrollment in the new health plan will begin January 1st of the following year.

(2) **During a special open enrollment:** Subscribers may change health plans outside of the annual open enrollment if a special open enrollment event occurs. The change in enrollment must be allowable under Internal Revenue Code (IRC) and correspond to the event that creates the special open enrollment for either the subscriber (~~(or)~~), the subscriber's dependent(~~(s)~~) or both. To make a health plan change, the subscriber must submit the appropriate enrollment forms (and a completed disenrollment form, if required) no later than sixty days after the event occurs. Employees submit the enrollment forms to their employing agency. All other subscribers submit the enrollment forms to the public employees benefits board (PEBB) program. Insurance coverage in the new health plan will begin the first day of the month following the later of the event date or the date the form is received. If the special open enrollment is due to the birth, adoption, or assumption of legal obligation for total or partial support in anticipation of adoption of a child, insurance coverage will begin the month in which the birth, adoption, or assumption of legal obligation for total or partial support in anticipation of adoption occurs. Any one of the following events may create a special open enrollment:

(a) Subscriber acquires a new dependent due to:

(i) Marriage or registering a domestic partnership (~~(with Washington's secretary of state)~~);

(ii) Birth, adoption or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption;

(iii) A child becoming eligible as an extended dependent through legal custody or legal guardianship; or

(iv) A child becoming eligible as a dependent with a disability;

(b) Subscriber or a subscriber's dependent loses other coverage under a group health plan or through health insurance coverage, as defined by the Health Insurance Portability and Accountability Act (HIPAA);

(c) Subscriber or a subscriber's dependent has a change in employment status that affects the subscriber's or the subscriber's dependent's eligibility for the employer contribution toward group health coverage;

(d) Subscriber or a subscriber's dependent has a change in residence that affects health plan availability. If the sub-

subscriber moves and the subscriber's current health plan is not available in the new location the subscriber must select a new health plan. If the subscriber does not select a new health plan, the PEBB program may change the subscriber's health plan as described in WAC 182-08-196;

(e) ~~((Subscriber receives))~~ A court order or national medical support ~~((order requiring the subscriber, the subscriber's spouse, or the subscriber's Washington state registered domestic partner))~~ notice (see also WAC 182-12-263) requires the subscriber or any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former registered domestic partner is not an eligible dependent);

(f) Subscriber or a subscriber's dependent becomes eligible for state premium assistance through medicaid or a state children's health insurance program (CHIP), or the subscriber or a subscriber's dependent loses eligibility for coverage under medicaid or CHIP;

(g) Subscriber or a subscriber's dependent becomes entitled to medicare, enrolls in or disenrolls from a medicare Part D plan. If the subscriber's current health plan becomes unavailable due to the subscriber's or a subscriber's dependent's entitlement to medicare, the subscriber must select a new health plan as described in WAC 182-08-196;

(h) Subscriber or a subscriber's dependent's current health plan becomes unavailable because the subscriber or enrolled dependent is no longer eligible for a health savings account (HSA). The health care authority (HCA) may require evidence that the subscriber or subscriber's dependent is no longer eligible for an HSA;

(i) Subscriber or subscriber's dependent experiences a disruption of care that could function as a reduction in benefits for the subscriber or the subscriber's dependent ~~((s) due to))~~ for a specific condition or ongoing course of treatment. ~~((A))~~ The subscriber may not change their health plan election if the subscriber's or ((an enrolled)) dependent's physician stops participation with the subscriber's health plan unless the PEBB program determines that a continuity of care issue exists. The PEBB program ((criteria used will include, but is not limited to, the following in determining if a continuity of care issue exists)) will consider but not limit its consideration to the following:

(i) Active cancer treatment such as chemotherapy or radiation therapy for up to ninety days or until medically stable; or

(ii) ~~((Recent))~~ Transplant ~~((f))~~ within the last twelve months ~~((g))~~; or

(iii) Scheduled surgery within the next sixty days (elective procedures within the next sixty days do not qualify for continuity of care); or

(iv) Recent major surgery still within the ~~((previous sixty days))~~ postoperative period of up to eight weeks; or

(v) Third trimester of pregnancy ~~((or~~

~~((vi) Language barrier)).~~

If the employee is having premiums taken from payroll on a pretax basis, a plan change will not be approved if it would conflict with provisions of the salary reduction plan authorized under RCW 41.05.300.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-08-199 When may an employee enroll in or change his or her election under the premium payment plan, medical flexible spending arrangement (FSA) or dependent care assistance program (DCAP)?** An eligible employee (as described in WAC 182-12-116) may enroll in or change his or her election under the premium payment plan, medical flexible spending arrangement (FSA), or dependent care assistance program (DCAP) at the following times:

(1) When they are newly eligible under WAC 182-12-114, as described in WAC 182-08-197.

(2) **During annual open enrollment:** An eligible employee (as described in WAC 182-12-116) may enroll in or change their election under the state's premium payment plan, medical FSA or DCAP during the annual open enrollment. Employees must submit, in paper or on-line, the appropriate enrollment form to enroll or reenroll no later than the last day of the annual open enrollment. The enrollment or new election will be effective January 1st of the following year.

(3) **During a special open enrollment:** Employees may enroll or change their election under the state's premium payment plan, medical FSA or DCAP outside of the annual open enrollment if a special open enrollment event occurs. The enrollment or change in enrollment must be allowable under Internal Revenue Code (IRC) and correspond to and be consistent with the event that creates the special open enrollment. To make a change or enroll, the employee must submit the appropriate forms as instructed on the forms no later than sixty days after the event occurs.

For purposes of this section, an eligible dependent includes any person who qualifies as a dependent of the employee for tax purposes under IRC Section 152 without regard to the income limitations of that section. It does not include a ~~((Washington))~~ state registered domestic partner unless the domestic partner otherwise qualifies as a dependent for tax purposes under IRC Section 152.

(a) **Premium payment plan.** An employee may enroll or change his or her election under the premium payment plan when any of the following special open enrollment events occur, if the requested change corresponds to and is consistent with the event. Enrollment will be effective the first day of the month following the later of the event date or the date the form is received.

(i) Employee acquires a new dependent due to:

- Marriage;
- Registering a domestic partnership when the dependent is a tax dependent of the subscriber;

• Birth, adoption, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption;

• A child becoming eligible as an extended dependent through legal custody or legal guardianship; or

• A child becoming eligible as a dependent with a disability;

(ii) Employee's dependent no longer meets public employees benefits board (PEBB) eligibility criteria because:

- Employee has a change in marital status;

• Employee's domestic partnership with a domestic partner who is a tax dependent is dissolved or terminated;

• An eligible dependent child turns age twenty-six or otherwise does not meet dependent child eligibility criteria;

• An eligible dependent ceases to be eligible as an extended dependent or as a dependent with a disability; or

• An eligible dependent dies.

(iii) Employee or an employee's dependent loses other coverage under a group health plan or through health insurance coverage, as defined by the Health Insurance Portability and Accountability Act (HIPAA);

~~((iii))~~ (iv) Employee or an employee's dependent has a change in employment status that affects the employee's or a dependent's eligibility for the employer contribution toward group health coverage;

~~((iv) Employee receives)~~ (v) Employee or an employee's dependent has a change in enrollment under another employer plan during its annual open enrollment that does not align with the PEBB program's annual open enrollment;

(vi) Employee or an employee's dependent has a change in residence that affects health plan availability;

(vii) Employee's dependent has a change in residence from outside of the United States to within the United States;

(viii) A court order or national medical support (~~order requiring~~) notice (see also WAC 182-12-263) requires the employee or (~~the employee's spouse~~) any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former registered domestic partner is not an eligible dependent);

~~((v))~~ (ix) Employee or employee's dependent becomes eligible for state premium assistance through medicaid or a state children's health insurance program (CHIP), or the employee or employee's dependent loses eligibility for coverage under medicaid or CHIP;

~~((vi))~~ (x) Employee or employee's dependent gains or loses eligibility for medicare;

~~((vii))~~ (xi) Employee or employee's dependent's current health plan becomes unavailable because the employee or enrolled dependent is no longer eligible for a health savings account (HSA). The health care authority (HCA) may require evidence that the employee or employee's dependent is no longer eligible for an HSA;

~~((viii))~~ (xii) Employee or employee's dependent experiences a disruption of care that could function as a reduction in benefits for the employee or the employee's dependent (~~due to~~) for a specific condition or ongoing course of treatment. (~~An~~) The employee may not change their health plan election if the employee's or (~~an enrolled~~) dependent's physician stops participation with the employee's health plan unless the PEBB program determines that a continuity of care issue exists. The PEBB program (~~criteria used will include, but is not limited to, the following in determining if a continuity of care issue exists~~) will consider but not limit its consideration to the following:

(A) Active cancer treatment such as chemotherapy or radiation therapy for up to ninety days or until medically stable; or

(B) ~~((Recent))~~ Transplant (~~(t)~~) within the last twelve months(~~(t))~~; or

(C) Scheduled surgery within the next sixty days (~~elective procedures within the next sixty days do not qualify for continuity of care~~); or

(D) Recent major surgery still within the (~~previous sixty days~~) postoperative period of up to eight weeks; or

(E) Third trimester of pregnancy(~~or~~

~~(F) Language barrier~~).

If the employee is having premiums taken from payroll on a pretax basis, a plan change will not be approved if it would conflict with provisions of the salary reduction plan authorized under RCW 41.05.300.

(b) **Flexible spending account (FSA).** An employee may enroll or change his or her election under the medical FSA when any one of the following special open enrollment events occur, if the requested change corresponds to and is consistent with the event. Enrollment will be effective the first day of the month following approval by the FSA administrator.

(i) Employee acquires a new dependent due to:

• Marriage;

• Registering a domestic partnership if the domestic partner qualifies as a tax dependent of the subscriber;

• Birth, adoption, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption;

• A child becoming eligible as an extended dependent through legal custody or legal guardianship; or

• A child becoming eligible as a dependent with a disability(~~(t))~~.

(ii) Employee's dependent no longer meets PEBB eligibility criteria because:

• Employee has a change in marital status;

• Employee's domestic partnership with a domestic partner who qualifies as a tax dependent is dissolved or terminated;

• An eligible dependent child turns age twenty-six or otherwise does not meet dependent child eligibility criteria;

• An eligible dependent ceases to be eligible as an extended dependent or as a dependent with a disability; or

• An eligible dependent dies.

(iii) Employee or an employee's dependent has a change in employment status that affects the employee's or a dependent's eligibility for the FSA;

~~((iii) Employee receives)~~ (iv) A court order or national medical support (~~order requiring~~) notice requires the employee or (~~the employee's spouse~~) any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former registered domestic partner is not an eligible dependent);

~~((iv))~~ (v) Employee or an employee's dependent loses eligibility for coverage under medicaid or a state children's health insurance program (CHIP);

~~((v))~~ (vi) Employee or an employee's dependent gains or loses eligibility for medicare(~~(t))~~.

(c) **Dependent care assistance program (DCAP).** An employee may enroll or change his or her election under the DCAP when any one of the following special open enrollment events occur, if the requested change corresponds to and is consistent with the event. Enrollment will be effective

the first day of the month following approval by the DCAP administrator.

- (i) Employee acquires a new dependent due to:
  - Marriage;
  - Registering a domestic partnership if the domestic partner qualifies as a tax dependent of the subscriber:
    - Birth, adoption, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption;
    - A child becoming eligible as an extended dependent through legal custody or legal guardianship; or
    - A child becoming eligible as a dependent with a disability((;)).
- (ii) Employee or an employee's dependent has a change in employment status that affects the employee's or a dependent's eligibility for DCAP;
- (iii) Employee or an employee's dependent has a change in enrollment under another employer plan during its annual open enrollment that does not align with the PEBB program's annual open enrollment;
- (iv) Employee changes dependent care provider; the change to DCAP can reflect the cost of the new provider;
- ~~((i+))~~ (v) Employee or the employee's spouse experiences a change in the number of qualifying individuals as defined in IRC Section 21 (b)(1);
- ~~((+))~~ (vi) Employee's dependent care provider imposes a change in the cost of dependent care; employee may make a change in the DCAP to reflect the new cost if the dependent care provider is not a relative as defined in Section 152 (a)(1) through (8), incorporating the rules of Section 152 (b)(1) and (2) of the IRC.

#### NEW SECTION

**WAC 182-08-235 Employer group application process.** This section applies to employer groups as defined in WAC 182-08-015. An employer group may apply to obtain insurance coverage through a contract with the health care authority (HCA). The authority will approve or deny the application through the evaluation criteria described in WAC 182-08-240. To apply, the employer group must submit the documents and information described in this rule to the public employees benefits board (PEBB) program at least sixty days before the requested coverage effective date.

(1) A letter of application that includes the information described in (a) through (d) of this subsection:

- (a) A reference to the employer group's authorizing statute;
- (b) A description of the organizational structure of the employer group and a description of the employee bargaining unit(s) or group of nonrepresented employees for which the employer group is applying;
- (c) Employer tax ID number (TIN); and
- (d) A statement of whether the employer group is requesting only medical insurance or medical, dental, life and LTD insurance.

(2) A resolution from the employer group's governing body authorizing the purchase of PEBB benefits.

(3) A signed governmental function attestation document that attests to the fact that employees for whom the

employer group is applying are governmental employees whose services are substantially all in the performance of essential governmental functions.

(4) A member level census file for all of the employees for whom the employer group is applying. The file must be provided in the format required by the authority and contain the following demographic data, by member, with each member classified as employee, spouse or state registered domestic partner, or child:

- (a) Employee ID (any identifier which uniquely identifies the employee; for dependents the employee's unique identifier must be used);
- (b) Age;
- (c) Gender;
- (d) First three digits of the member's zip code based on residence;
- (e) Indicator of whether the employee is active or retired, if the employer group is requesting to include retirees; and
- (f) Indicator of whether the member is enrolled in coverage.

(5) If the application is for a subset of the employer group's employees (e.g., bargaining unit), the employer group must provide a member level census file of all employees eligible under their current health plan who are not included on the member level census file in subsection (4) of this section. The file must include the same demographic data by member.

(6) In addition to the requirements of subsections (1) through (5) of this section, additional information is required based upon the total number of employees that the employer group employs who are eligible under their current health plan:

(a) Employer groups with fewer than eleven eligible employees must provide proof of current coverage or proof of prior coverage within the last twelve months.

(b) Employer groups with greater than three hundred but less than twenty-five hundred eligible employees must provide the following:

- (i) Large claims history for twenty-four months, by quarter that excludes the most recent three months; and
- (ii) Ongoing large claims management report for the most recent quarter provided in the large claims history.

(c) Employer groups with greater than twenty-five hundred eligible employees must submit to an actuarial evaluation of the group. The employer group must pay for the cost of the evaluation. This cost is nonrefundable. An employer group that is approved will not have to pay for an additional actuarial evaluation if it applies to add another bargaining unit within two years of the evaluation. Employer groups of this size must provide the following:

- (i) Large claims history for twenty-four months, by quarter that excludes the most recent three months;
  - (ii) Ongoing large claims management report for the most recent quarter provided in the large claims history;
  - (iii) Executive summary of benefits;
  - (iv) Summary of benefits and certificate of coverage; and
  - (v) Summary of historical plan costs.
- (d) The following definitions apply for purposes of this section:

(i) "Large claim" is defined as a member that received more than twenty-five thousand dollars in allowed cost for services in a quarter; and

(ii) An "ongoing large claim" is a claim where the patient is expected to need ongoing case management into the next quarter for which the expected allowed cost is greater than twenty-five thousand dollars in the quarter.

(e) If the current health plan does not have a case management program then the primary diagnosis code designated by the authority must be reported for each large claimant and if the code indicates a condition which is expected to continue into the next quarter, the claim is counted as an ongoing large claim.

#### NEW SECTION

**WAC 182-08-237 May a local government entity or tribal government entity applying for participation in public employees benefits board (PEBB) insurance coverage include their retirees?** A local government or tribal government that applies for participation in public employees benefits board (PEBB) insurance coverage under WAC 182-08-235 may request inclusion of retired employees who are covered under its retiree health plan at the time of application.

(1) The authority will use the following criteria to approve or deny a request to include retirees:

(a) The local government or tribal government retiree health plan must have existed at least three years before the date of the employer group application;

(b) Eligibility for coverage under the local government's or tribal government's retiree health plan must have required immediate enrollment in retiree health plan coverage upon termination of employee coverage; and

(c) The retirees must have maintained continuous enrollment in the local government or tribal government retiree health plan.

(2) Retirees and dependents included in the transfer unit are subject to the enrollment and eligibility rules outlined in chapters 182-08, 182-12 and 182-16 WAC.

(3) Employees eligible for retirement subsequent to the local government or tribal government transferring to PEBB health plan coverage must meet retiree eligibility as outlined in chapter 182-12 WAC.

(4) To protect the integrity of the risk pool, if total local government or tribal government retiree enrollment exceeds ten percent of the total PEBB retiree population, the PEBB program may:

(a) Stop approving inclusion of retirees with local government or tribal government unit transfers; or

(b) Adopt a new rating methodology reflective of the cost of covering local government or tribal government retirees.

#### NEW SECTION

**WAC 182-08-240 How will the health care authority (HCA) decide to approve or deny an employer group application?** Employer group applications for participation in insurance coverage provided through the public employees benefits board (PEBB) program are approved or denied by

the health care authority (HCA) based upon the information and documents submitted by the employer group and the employer group evaluation (EGE) criteria described in this rule. The authority may automatically deny an employer group application if the employer group fails to provide the required information and documents described in WAC 182-08-235.

(1) Employer groups are evaluated as a single unit. To support this requirement the employer group must provide census data for all employees eligible to participate under the employer group's current health plan.

(2) An employer group must pass the EGE criteria or the actuarial evaluation required in subsection (3) of this section as a single unit before the group can be approved for participation. For purposes of this section a single unit includes all employees eligible under the employer group's current health plan. If the application is only for a bargaining unit, then each bargaining unit of the employer group must be evaluated using the EGE criteria in addition to all eligible employees of employer group as a single unit. If the employer group passes the EGE criteria as a single unit, but an individual bargaining unit does not, the employer group may only participate if all eligible employees of the entity participate.

(3) The authority will determine which of the criteria in (a) through (d) of this subsection is used to evaluate the employer group based upon the total number of eligible employees in the single unit.

(a) **Micro groups** (a single unit of one to ten employees) must meet the following criteria in order to pass the EGE evaluation:

(i) Provide proof of current coverage or proof of prior coverage within the last twelve months; and

(ii) The member level census file demographic data must indicate a relative underwriting factor that is equal to or better than the relative underwriting factor for the nonmedicare PEBB risk pool as determined by the authority.

(b) **Small and medium groups** (a single unit of eleven to three hundred employees) must meet the following criterion in order to pass the EGE evaluation: The member level census file demographic data must indicate a relative underwriting factor that is equal to or better than the relative underwriting factor for the nonmedicare PEBB risk pool as determined by the authority.

(c) **Large groups** (a single unit of three hundred one to two thousand five hundred employees) must meet the following criteria in order to pass the EGE evaluation:

(i) The member level census file demographic data must indicate a relative underwriting factor that is equal to or better than the relative underwriting factor for the nonmedicare PEBB risk pool as determined by the authority;

(ii) One of the following two conditions must be met:

- The frequency of large claims must be less than or equal to the historical benchmark frequency for the PEBB nonmedicare population; and

- The ongoing large claims management report must demonstrate that the frequency of ongoing large claims is less than or equal to the recurring benchmark frequency for the PEBB nonmedicare population.

(d) **Jumbo groups** (a single unit of two thousand five hundred one or more employees) must meet the following criteria in order to pass the actuarial evaluation:

(i) The member level census file demographic data must indicate a relative underwriting factor that is equal to or better than the relative underwriting factor for the nonmedicare PEBB risk pool as determined by the authority;

(ii) One of the following two conditions must be met:

- The frequency of large claims must be less than or equal to the PEBB historical benchmark frequency for the PEBB nonmedicare population;
- The ongoing large claims management report must demonstrate that the frequency of ongoing large claims is less than or equal to the recurring benchmark frequency for the PEBB nonmedicare population;

(iii) Provide an executive summary of benefits;

(iv) Provide a summary of benefits and certificate of coverage;

(v) Provide a summary of historical plan costs; and

(vi) The evaluation of criteria in (d)(iii), (iv) and (v) of this subsection must indicate that the historical cost of benefits for the employer group is equal to or less than the historical cost of the PEBB nonmedicare population for a comparable plan design.

(4) The group evaluation for a jumbo group is valid for two years after approval by the authority. If an employer group applies to add additional bargaining units after two years the group must be reevaluated.

(5) An entity whose employer group application is denied may appeal the authority's decision to the PEBB appeals committee through the process described in WAC 182-16-038.

(6) An entity whose employer group application is approved may purchase insurance for its employees under the participation requirements described in WAC 182-08-245.

## NEW SECTION

**WAC 182-08-245 Employer group participation requirements.** This section applies to an employer group as defined in WAC 182-08-015 that is approved to purchase insurance for its employees through a contract with the health care authority (HCA).

(1) Prior to enrollment of employees in public employees benefits board (PEBB) insurance coverage, the employer group must:

(a) Remit to the authority the required start-up fee in the amount publicized by the PEBB program;

(b) Sign a contract with the authority;

(c) Determine employee and dependent eligibility and terms of enrollment for PEBB insurance coverage in accordance with the criteria outlined in the employer group's contract with the authority;

(d) Determine eligibility in order to ensure the PEBB program's continued status as a governmental plan under Section 3(32) of the Employee Retirement Income Security Act of 1974 (ERISA) as amended. This means that only employees whose services are substantially all in the performance of essential governmental functions but not in the performance of commercial activities, whether or not those activities qual-

ify as essential governmental functions may be considered eligible by the employer group; and

(e) Ensure PEBB health plans are the only employer-sponsored health plans available to groups of employees eligible for PEBB insurance coverage under the contract.

(2) Pay premiums in accordance with its contract with the authority based on the following premium structure:

(a) The premium rate structure for K-12 school districts and educational service districts will be a composite rate equal to the rate charged to state agencies plus an amount equal to the employee premium based on health plan choice and family enrollment.

Exception: The authority will allow districts that enrolled prior to September 1, 2002, to continue participation based on a tiered rate structure. The authority may require the district to change to a composite rate structure with ninety days advance written notice.

(b) The premium rate structure for employer groups other than districts described in (a) of this subsection will be a tiered rate based on health plan choice and family enrollment.

Exception: The authority will allow employer groups that enrolled prior to January 1, 1996, to continue to participate based on a composite rate structure. The authority may require the employer group to change to a tiered rate structure with ninety days advance written notice.

(3) If an employer group wants to make subsequent changes to the contract, the changes must be submitted to the authority for approval.

(4) The employer group must maintain participation in PEBB insurance coverage for at least one full year. An employer group may only end participation at the end of a plan year unless the authority approves a mid-year termination. To end participation, an employer group must provide written notice to the PEBB program at least sixty days before the requested termination date.

(5) Upon approval to purchase insurance through a contract with the authority, the employer group must provide a list of employees and dependents that are enrolled in COBRA benefits and the remaining number of months available to them based on their qualifying event. These employees and dependents may enroll in PEBB medical and dental as COBRA enrollees for the remainder of the months available to them based on their qualifying event.

(6) Enrollees in PEBB insurance coverage under one of the continuation of coverage provisions allowed under chapter 182-12 WAC or retirees included in the transfer unit as allowed under WAC 182-08-237 cease to be eligible as of the last day of the contract and may not continue enrollment beyond the end of the month in which the contract is terminated.

Exception: If an employer group, other than a school district or educational service district, ends participation, retired and disabled employees who began participation before September 15, 1991, are eligible to continue enrollment in PEBB insurance coverage if the employee continues to meet the procedural and eligibility requirements of WAC 182-12-171. Employees who enrolled after September 15, 1991, who are enrolled in PEBB retiree insurance cease to be eligible

under WAC 182-12-171, but may continue health plan enrollment under COBRA (see WAC 182-12-146).

### REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 182-08-230 Participation in PEBB benefits by employer groups, including K-12 school districts and educational service districts.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-109 Definitions.** The following definitions apply throughout this chapter unless the context clearly indicates another meaning:

~~("Agency" means the health care authority.)~~ "Authority" or "HCA" means the health care authority.

"Benefits eligible position" means any position held by an employee who is eligible for benefits under WAC 182-12-114, with the exception of employees who establish eligibility under WAC 182-12-114 (2) or (3)(a)(ii).

"Board" means the public employees benefits board established under provisions of RCW 41.05.055.

"Comprehensive employer-sponsored medical" includes insurance coverage continued by the employee or their dependent under COBRA. It does not include an employer's retiree coverage, with the exception of a federal retiree plan.

"Creditable coverage" means coverage that meets the definition of "creditable coverage" under RCW 48.66.020 (13)(a) and includes payment of medical and hospital benefits.

"Defer" means to postpone enrollment or interrupt enrollment in a PEBB medical insurance by a retiree or eligible survivor.

"Dependent" means a person who meets eligibility requirements in WAC 182-12-260.

"Dependent care assistance program" or "DCAP" means a benefit plan whereby state and public employees may pay for certain employment related dependent care with pretax dollars as provided in the salary reduction plan authorized in chapter 41.05 RCW.

"Director" means the director of the ~~((HCA or designee))~~ authority.

"Effective date of enrollment" means the first date when an enrollee is entitled to receive covered benefits.

"Employer group" means those employee organizations representing state civil service employees, counties, municipalities, political subdivisions, the Washington health benefit exchange, tribal governments, school districts, and educational service districts participating in PEBB insurance coverage under ~~((contract))~~ contractual agreement as described in WAC ~~((182-08-230))~~ 182-08-245.

"Employing agency" means a division, department, or separate agency of state government, including an institution of higher education; a county, municipality, school district,

educational service district, or other political subdivision; or a tribal government covered by chapter 41.05 RCW.

"Enrollee" means a person who meets all eligibility requirements defined in chapter 182-12 WAC, who is enrolled in PEBB benefits, and for whom applicable premium payments have been made.

"Faculty" means an academic employee of an institution of higher education whose workload is not defined by work hours but whose appointment, workload, and duties directly serve the institution's academic mission, as determined under the authority of its enabling statutes, its governing body, and any applicable collective bargaining agreement.

"Health plan" or "plan" means a medical or dental plan developed by the public employees benefits board and provided by a contracted vendor or self-insured plans administered by the HCA.

"Institutions of higher education" means the state public research universities, the public regional universities, The Evergreen State College, the community and technical colleges, and includes the higher education personnel board and the state board for community and technical colleges.

"Insurance coverage" means any health plan, life insurance, long-term care insurance, ~~((long-term disability))~~ LTD insurance, or property and casualty insurance administered as a PEBB benefit.

"Layoff," for purposes of this chapter, means a change in employment status due to an employer's lack of funds or an employer's organizational change.

"LTD insurance" includes basic long-term disability insurance paid for by the employing agency and long-term disability insurance offered to employees on an optional basis.

"Life insurance" includes basic life insurance paid for by the employing agency, life insurance offered to employees on an optional basis, and retiree life insurance.

"Medical flexible spending arrangement" or "medical FSA" means a benefit plan whereby state and public employees may reduce their salary before taxes to pay for medical expenses not reimbursed by insurance as provided in the salary reduction plan authorized in chapter 41.05 RCW.

"Open enrollment" means a time period when: Subscribers may apply to transfer their enrollment from one health plan to another; a dependent may be enrolled; a dependent may be removed from coverage; or an employee who previously waived medical may enroll in medical. Open enrollment is also the time when employees may enroll in or change their election under the DCAP, the medical FSA, or the premium payment plan. An "annual" open enrollment, designated by the director, is an open enrollment when all PEBB subscribers may make enrollment changes for the upcoming year. A "special" open enrollment is triggered by a specific life event. For special open enrollment events as they relate to specific PEBB benefits, see WAC 182-08-198, 182-08-199, 182-12-128, 182-12-262.

"PEBB" means the public employees benefits board.

"PEBB appeals committee" means the committee that considers appeals relating to the administration of PEBB benefits by the PEBB program. The director has delegated the authority to hear appeals at the level below an administrative hearing to the PEBB appeals committee.

"PEBB benefits" means one or more insurance coverages or other employee benefits administered by the PEBB program within ~~((HCA))~~ the health care authority.

"PEBB program" means the program within the HCA which administers insurance and other benefits for eligible employees ~~((of the state))~~ (as defined in WAC 182-12-114), eligible retired and disabled employees (as defined in WAC 182-12-171), eligible dependents (as defined in WAC 182-12-250 and 182-12-260) and others as defined in RCW 41.05.011.

"Premium payment plan" means a benefit plan whereby state and public employees may pay their share of group health plan premiums with pretax dollars as provided in the salary reduction plan.

"Salary reduction plan" means a benefit plan whereby state and public employees may agree to a reduction of salary on a pretax basis to participate in the DCAP, medical FSA, or premium payment plan as authorized in chapter 41.05 RCW.

"Seasonal employee" means an employee hired to work during a recurring, annual season with a duration of three months or more, and anticipated to return each season to perform similar work.

"State agency" means an office, department, board, commission, institution, or other separate unit or division, however designated, of the state government and all personnel thereof. It includes the legislature, executive branch, and agencies or courts within the judicial branch, as well as institutions of higher education and any unit of state government established by law.

"Subscriber" means the employee, retiree, COBRA beneficiary or eligible survivor who has been designated by the HCA as the individual to whom the HCA and contracted vendors will issue all notices, information, requests and premium bills on behalf of enrollees.

"Termination of the employment relationship" means that an employee resigns or an employee is terminated and the employing agency has no anticipation that the employee will be rehired.

"Tribal government" means an Indian tribal government as defined in Section 3(32) of the Employee Retirement Income Security Act of 1974 (ERISA), as amended, or an agency or instrumentality of the tribal government, that has government offices principally located in this state.

"Waive" means to interrupt an eligible employee's enrollment in a PEBB health plan because the employee is enrolled in other comprehensive group medical coverage as required under WAC 182-12-128, or is on approved educational leave ~~((see WAC 182-12-128 and 182-12-136))~~ and obtains comprehensive group health plan coverage as allowed under WAC 182-12-136.

**AMENDATORY SECTION** (Amending Order 10-02, filed 10/6/10, effective 1/1/11)

**WAC 182-12-111 Eligible entities and individuals.** The following entities and individuals shall be eligible for public employees benefits board (PEBB) insurance coverage subject to the terms and conditions set forth below:

(1) State agencies. State agencies, as defined in WAC 182-12-109, are required to participate in all PEBB benefits.

Insurance and health care contributions for ferry employees shall be governed by RCW 47.64.270.

~~((a) Employees of technical colleges previously enrolled in a benefits trust may end PEBB benefits by January 1, 1996, or the expiration of the current collective bargaining agreements, whichever is later. Employees electing to end PEBB benefits have a one-time reenrollment option after a five year wait. Employees of a bargaining unit may end PEBB benefit participation only as an entire bargaining unit. All administrative or managerial employees may end PEBB participation only as an entire unit.~~

~~(b) Community and technical colleges with employees enrolled in a benefits trust shall remit to the HCA a retiree remittance as specified in the omnibus appropriations act, for each full-time employee equivalent. The remittance may be prorated for employees receiving a prorated portion of benefits.)~~

(2) Employer groups~~(s)~~. Employer groups may apply to participate in PEBB insurance coverage~~((s))~~ for groups of employees described in subsection (a) of this section at the option of each employer group ~~((provided all of the following requirements are met))~~:

(a) All eligible employees of the entity must transfer ~~((to PEBB insurance coverage))~~ as a unit with the following exceptions:

- Bargaining units may elect to participate separately from the whole group; ~~((and))~~
- Nonrepresented employees may elect to participate separately from the whole group provided all nonrepresented employees join as a group~~((~~

~~(b) PEBB health plans must be the only employer sponsored health plans available to eligible employees.~~

~~(c))~~; and

- Members of the employer group's governing authority may participate as defined in the employer group's governing statutes and RCW 41.04.205.

~~(b) The employer group must ((submit to the HCA an application when it first applies, the contents of which will be specified by HCA. The application for employer groups, with the exception of school districts and educational service districts, is subject to review and approval by the HCA, and the decision to approve or deny the application shall be provided to the applying employer group by the HCA.~~

~~(d) Each employer group purchasing PEBB insurance coverage must sign a contract with the HCA. The employer group must abide by the eligibility, enrollment, and payment terms specified in the contract. Any subsequent changes to the contract must be submitted for approval in advance of the change.~~

~~(e) The employer group must maintain its PEBB insurance coverage participation at least one full year, and may end participation only at the end of a plan year.~~

~~(f) The employer group must give the HCA written notice of its intent to end PEBB insurance coverage participation at least sixty days before the effective date of termination. With the exception of retired and disabled employees of school districts or educational service districts, if the employer group ends PEBB insurance coverage, retired and disabled employees who began participating after September 15, 1991, are not eligible for PEBB insurance coverage~~



beyond the mandatory extension requirements specified in WAC 182-12-146.

~~(g) Employees eligible for PEBB participation include only those employees whose services are substantially all in the performance of essential governmental functions but not in the performance of commercial activities, whether or not those activities qualify as essential governmental functions. Employer groups shall determine eligibility in order to ensure PEBB's continued status as a governmental plan under Section 3(32) of the Employee Retirement Income Security Act of 1974 (ERISA) as amended.) apply through the process described in WAC 182-08-235. K-12 school district and educational service district applications do not have to include the census information required in WAC 182-08-235 (4) or (5). Employer group applications are subject to review and approval by the health care authority (HCA). With the exception of K-12 school districts and educational service districts, the authority will approve or deny an employer group's application based on the employer group eligibility criteria described in WAC 182-08-240.~~

(c) Employer groups participate through a contract with the authority as described in WAC 182-08-245.

(3) School districts and educational service districts~~(s)~~. In addition to subsection (2) of this section, the following applies to school districts and educational service districts:

(a) The HCA will collect an amount equal to the composite rate charged to state agencies plus an amount equal to the employee premium by health plan and family size as would be charged to state employees for each participating school district or educational service district.

(b) The HCA may collect these amounts in accordance with the district fiscal year, as described in RCW 28A.505-.030.

(4) The Washington health benefit exchange. In addition to subsection (2) of this section, the following provisions apply:

(a) The Washington health benefit exchange is subject to the same rules as an employing agency in chapters 182-08, 182-12 and 182-16 WAC.

(b) An employee of the Washington health benefit exchange is subject to the same rules as an employee of an employing agency in chapters 182-08, 182-12 and 182-16 WAC.

(5) Eligible nonemployees.

(a) Blind vendors means a "licensee" as defined in RCW 74.18.200: Vendors actively operating a business enterprise program facility in the state of Washington and deemed eligible by the department of services for the blind may voluntarily participate in PEBB insurance coverage.

~~((a))~~ (i) Vendors that do not enroll when first eligible may enroll only during the annual open enrollment period offered by the HCA or the first day of the month following loss of other insurance coverage.

~~((b))~~ (ii) Department of services for the blind will notify eligible vendors of their eligibility in advance of the date that they are eligible to apply for enrollment in PEBB insurance coverage.

~~((c))~~ (iii) The eligibility requirements for dependents of blind vendors shall be the same as the requirements for

dependents of the state employees ~~((and retirees))~~ in WAC 182-12-260.

~~((5))~~ Eligible nonemployees:

~~((a))~~ (b) Dislocated forest products workers enrolled in the employment and career orientation program pursuant to chapter 50.70 RCW shall be eligible for PEBB health plans while enrolled in that program.

~~((b))~~ (c) School board members or students eligible to participate under RCW 28A.400.350 may participate in PEBB insurance coverage as long as they remain eligible under that section.

(6) Individuals that are not eligible include:

(a) Adult family home providers as defined in RCW 70.128.010;

(b) Unpaid volunteers;

(c) Patients of state hospitals;

(d) Inmates;

(e) Employees of the Washington state convention and trade center as provided in RCW 41.05.110;

(f) Students of institutions of higher education as determined by their institutions; and

(g) Any others not expressly defined as employees under RCW 41.05.011.

AMENDATORY SECTION (Amending Order 09-02, filed 11/17/09, effective 1/1/10)

**WAC 182-12-113 What are the obligations of a state agency in the application of employee eligibility?** (1) All state agencies must carry out all actions, policies, and guidance issued by the public employees benefits board (PEBB) program necessary for the operation of benefit plans, education of employees, claims administration, and appeals process including ~~((that))~~ those described in chapters 182-08, 182-12, and 182-16 WAC. State agencies must:

(a) Use the methods provided by the PEBB program to determine eligibility and enrollment in benefits, unless otherwise approved in writing;

(b) Provide eligibility determination reports with content and in a format designed and communicated by the PEBB program or otherwise as approved in writing by the PEBB program; and

(c) Carry out corrective action and pay any penalties imposed by the authority and established by the board when the state agency's eligibility determinations fail to comply with the criteria under these rules.

(2) All state agencies must determine employee eligibility for PEBB benefits and employer contribution according to the criteria in WAC 182-12-114 and 182-12-131. State agencies must:

(a) Notify newly hired employees of PEBB rules and guidance for eligibility and appeal rights;

(b) Provide written notice to faculty who are potentially eligible for benefits and employer contribution of their potential eligibility under WAC 182-12-114(3) and 182-12-131;

(c) Inform an employee in writing whether or not he or she is eligible for benefits upon employment. The written communication must include a description of any hours that are excluded in determining eligibility and information about

the employee's right to appeal eligibility and enrollment decisions;

(d) Routinely monitor all employees' eligible work hours to establish eligibility and maintain the employer contribution toward insurance coverage;

(e) Make eligibility determinations based on the criteria of the eligibility category that most closely describes the employee's work circumstances per the PEBB program's direction;

(f) Identify when a previously ineligible employee becomes eligible or a previously eligible employee loses eligibility; and

(g) Inform an employee in writing whether or not he or she is eligible for benefits and the employer contribution whenever there is a change in work patterns such that the employee's eligibility status changes. At the same time, state agencies must inform employees of the right to appeal eligibility and enrollment decisions.

AMENDATORY SECTION (Amending Order 10-02, filed 10/6/10, effective 1/1/11)

**WAC 182-12-123 Dual enrollment is prohibited.** Public employees benefits board (PEBB) health plan coverage is limited to a single enrollment per individual.

(1) Effective January 1, 2002, individuals who have more than one source of eligibility for enrollment in PEBB health plan coverage (called "dual eligibility") are limited to one enrollment.

(2) An eligible employee may waive medical and enroll as a dependent on the coverage of his or her eligible spouse, eligible (~~(Washington)~~) state registered domestic partner, or eligible parent as stated in WAC 182-12-128.

(3) Children eligible for medical and dental under two subscribers may be enrolled as a dependent under the health plan of only one subscriber.

(4) An employee who is eligible for the employer contribution to PEBB benefits due to employment in more than one PEBB-participating employing agency (~~(may)~~) must choose to enroll under only ((under)) one employing agency. ((The employee must choose to enroll in PEBB benefits under only one employing agency.))

**Exception:** Faculty who seek to establish or maintain eligibility under WAC 182-12-114(3) with two or more state institutions of higher education will be enrolled under the employing agency responsible to pay the employer contribution according to WAC 182-08-200(2).

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-128 May an employee waive health plan enrollment?** Employees must enroll in dental, basic life and basic long-term disability insurance (unless the employing agency does not participate in these public employees benefits board (PEBB) insurance coverages). However, employees may waive PEBB medical if they have other comprehensive group medical coverage.

(1) Employees may waive enrollment in PEBB medical by submitting the appropriate enrollment form to their employing agency during the following times:

(a) **When the employee becomes eligible:** Employees may waive medical when they become eligible for PEBB benefits. Employees must indicate they are waiving medical on the appropriate enrollment form they submit to their employing agency no later than thirty-one days after the date they become eligible (see WAC 182-08-197). Medical will be waived as of the date the employee becomes eligible for PEBB benefits.

(b) **During the annual open enrollment:** Employees may waive medical during the annual open enrollment if they submit the appropriate enrollment form to their employing agency before the end of the annual open enrollment. Medical will be waived beginning January 1st of the following year.

(c) **During a special open enrollment:** Employees may waive medical during a special open enrollment as described in subsection (4) of this section.

(2) If an employee waives medical, the employee's eligible dependents may not be enrolled in medical.

(3) Once medical is waived, enrollment is only allowed during the following times:

(a) During the annual open enrollment;

(b) During a special open enrollment created by an event that allows for enrollment outside of the annual open enrollment as described in subsection (4) of this section. In addition to the appropriate forms, the PEBB program may require the employee to provide evidence of eligibility and evidence of the event that creates a special open enrollment.

(4) **Special open enrollment:** Employees may waive enrollment in medical or enroll in medical if a special open enrollment event((s)) occurs. The change in enrollment must be allowable under the Internal Revenue Code (IRC) and correspond to the event that creates the special open enrollment for either the employee, the employee's dependent, or both. Any one of the following events may create a special open enrollment:

(a) Employee acquires a new dependent due to:

(i) Marriage or registering a domestic partnership (~~(with Washington state)~~);

(ii) Birth, adoption or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption;

(iii) A child becoming eligible as an extended dependent through legal custody or legal guardianship; or

(iv) A child becoming eligible as a dependent with a disability;

(b) Employee or a dependent loses other coverage under a group health plan or through health insurance coverage, as defined by the Health Insurance Portability and Accountability Act (HIPAA);

(c) Employee or an employee's dependent has a change in employment status that affects the employee's or employee's dependent's eligibility for the employer contribution toward group health coverage;

(d) Employee (~~(receives))~~ or an employee's dependent has a change in enrollment under another employer plan during its annual open enrollment that does not align with the PEBB program's annual open enrollment;

(e) Employee's dependent has a change in residence from outside of the United States to within the United States;

~~((f))~~ (f) A court order or national medical support (~~(order requiring))~~ notice (see also WAC 182-12-263) requires the employee (~~(, spouse, or Washington state registered domestic partner))~~ or any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former registered domestic partner is not an eligible dependent);

~~((g))~~ (g) Employee or dependent becomes eligible for state premium assistance through medicaid or a state children's health insurance program (CHIP), or the employee or dependent loses eligibility for coverage under medicaid or CHIP.

To waive or enroll during a special open enrollment, the employee must submit the appropriate forms to their employing agency no later than sixty days after the event that creates the special open enrollment.

Medical will be waived the end of the month following the later of the event date or the date the form is received. If the special open enrollment is due to the birth, adoption or assumption of legal obligation for total or partial support in anticipation of adoption of a child, medical will be waived the first of the month in which the event occurs.

Enrollment in medical will begin the first day of the month following the later of the event date or the date the form is received. If the special open enrollment is due to the birth, adoption or assumption of legal obligation for total or partial support in anticipation of adoption of a child, enrollment in medical will begin the first of the month in which the event occurs.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-131 How do eligible employees maintain the employer contribution toward insurance coverage?** The employer contribution toward insurance coverage begins on the day that public employees benefits board (PEBB) benefits begin under WAC 182-12-114. This section describes under what circumstances an employee maintains eligibility for the employer contribution toward PEBB benefits.

(1) **Maintaining the employer contribution.** Except as described in subsections (2), (3), and (4) of this section, an employee who has established eligibility for benefits under WAC 182-12-114 is eligible for the employer contribution each month in which he or she is in pay status eight or more hours per month.

(2) **Maintaining the employer contribution - Benefits-eligible seasonal employees.**

(a) A benefits-eligible seasonal employee (eligible under WAC 182-12-114(2)) who works a season of less than nine months is eligible for the employer contribution in any month of his or her season in which he or she is in pay status eight or more hours during that month. The employer contribution toward PEBB benefits for seasonal employees returning after their off season begins on the first day of the first month of the season in which they are in pay status eight hours or more.

(b) A benefits-eligible seasonal employee (eligible under WAC 182-12-114(2)) who works a season of nine months or more is eligible for the employer contribution:

(i) In any month of his or her season in which he or she is in pay status eight or more hours during that month; and

(ii) Through the off season following each season worked.

(3) **Maintaining the employer contribution - Eligible faculty.**

(a) Benefits-eligible faculty anticipated to work the entire instructional year or equivalent nine-month period (eligible under WAC 182-12-114 (3)(a)(i)) are eligible for the employer contribution each month of the instructional year, except as described in subsection (7) of this section.

(b) Benefits-eligible faculty who are hired on a quarter/semester to quarter/semester basis (eligible under WAC 182-12-114 (3)(a)(ii)) are eligible for the employer contribution each quarter or semester in which the employee works half-time or more.

(c) Summer or off-quarter/semester coverage: All benefits-eligible faculty (eligible under WAC 182-12-114(3)) who work an average of half-time or more throughout the entire instructional year or equivalent nine-month period and work each quarter/semester of the instructional year or equivalent nine-month period are eligible for the employer contribution toward summer or off-quarter/semester insurance coverage.

**Exception:**

Eligibility for the employer contribution toward summer or off-quarter/semester insurance coverage ends on the end date specified in an employing agency's termination notice or an employee's resignation letter, whichever is earlier, if the employing agency has no anticipation that the employee will be returning as faculty at any institution of higher education where the employee has employment. If the employing agency deducted the employee's premium for insurance coverage after the employee was no longer eligible for the employer contribution, insurance coverage ends the last day of the month for which employee premiums were deducted.

(d) Two-year averaging: All benefits-eligible faculty (eligible under WAC 182-12-114(3)) who worked an average of half-time or more in each of the two preceding academic years are potentially eligible to receive uninterrupted employer contribution to PEBB benefits. "Academic year" means summer, fall, winter, and spring quarters or summer, fall, and spring semesters and begins with summer quarter/semester. In order to be eligible for the employer contribution through two-year averaging, the faculty must provide written notification of his or her potential eligibility to his or her employing agency or agencies within the deadlines established by the employing agency or agencies. Faculty continue to receive uninterrupted employer contribution for each academic year in which they:

(i) Are employed on a quarter/semester to quarter/semester basis and work at least two quarters or two semesters; and

(ii) Have an average workload of half-time or more for three quarters or two semesters.

Eligibility for the employer contribution under two-year averaging ceases immediately if the eligibility criteria is not met or if the eligibility criteria becomes impossible to meet.

(e) Faculty who lose eligibility for the employer contribution: All benefits-eligible faculty (eligible under WAC 182-12-114(3)) who lose eligibility for the employer contribution will regain it if they return to a faculty position where

it is anticipated that they will work half-time or more for the quarter/semester no later than the twelfth month after the month in which they lost eligibility for the employer contribution. The employer contribution begins on the first day of the month in which the quarter/semester begins.

**(4) Maintaining the employer contribution - Employees on leave and under the special circumstances listed below.**

(a) Employees who are on approved leave under the federal Family and Medical Leave Act (FMLA) continue to receive the employer contribution as long as they are approved under the act.

(b) Unless otherwise indicated in this section, employees in the following circumstances receive the employer contribution only for the months they are in pay status eight hours or more:

- (i) Employees on authorized leave without pay;
- (ii) Employees on approved educational leave;
- (iii) Employees receiving time-loss benefits under workers' compensation;
- (iv) Employees called to active duty in the uniformed services as defined under the Uniformed Services Employment and Reemployment Rights Act (USERRA); or
- (v) Employees applying for disability retirement.

**(5) Maintaining the employer contribution - Employees who move from an eligible to an otherwise ineligible position due to a layoff** maintain the employer contribution toward insurance coverage under the criteria in WAC 182-12-129.

**(6) Employees who are in pay status less than eight hours in a month.** Unless otherwise indicated in this section, when there is a month in which an employee is not in pay status for at least eight hours, the employee:

- (a) Loses eligibility for the employer contribution for that month; and
- (b) Must reestablish eligibility for PEBB benefits under WAC 182-12-114 in order to be eligible for the employer contribution again.

**(7) The employer contribution to PEBB insurance coverage ends** in any one of these circumstances for all employees:

(a) When the employee fails to maintain eligibility for the employer contribution as indicated in the criteria in subsection (1) through (6) of this section.

(b) When the employment relationship is terminated. As long as the employing agency has no anticipation that the employee will be rehired, the employment relationship is terminated:

- (i) On the date specified in an employee's letter of resignation; or
- (ii) On the date specified in any contract or hire letter or on the effective date of an employer-initiated termination notice.

(c) When the employee moves to a position that is not anticipated to be eligible for benefits under WAC 182-12-114, not including changes in position due to a layoff.

The employer contribution toward PEBB medical, dental and life insurance for an employee, spouse, (~~Washington~~) state registered domestic partner, or child ceases at 12:00 midnight, the last day of the month in which the

employee is eligible for the employer contribution under this section.

**Exception:**

If the employing agency deducted the employee's premium for insurance coverage after the employee was no longer eligible for the employer contribution, insurance coverage ends the last day of the month for which employee premiums were deducted.

**(8) Options for continuation coverage by self-paying.** During temporary or permanent loss of the employer contribution toward insurance coverage, employees have options for providing continuation coverage for themselves and their dependents by self-paying the full premium set by the health care authority (HCA). These options are available according to WAC 182-12-133, 182-12-141, 182-12-142, 182-12-146, 182-12-148, and 182-12-270.

AMENDATORY SECTION (Amending Order 10-02, filed 10/6/10, effective 1/1/11)

**WAC 182-12-133 What options for continuation coverage are available to employees on certain types of leave or whose work ends due to a layoff?** Employees who have established eligibility for PEBB benefits under WAC 182-12-114 have options for providing continuation coverage for themselves and their dependents by self-paying the full premium set by the HCA during temporary or permanent loss of the employer contribution toward insurance coverage.

(1) When an employee is no longer eligible for the employer contribution toward PEBB benefits due to an event described in (a) through (f) of this subsection, insurance coverage may be continued by self-paying the full premium set by the HCA, with no contribution from the employer. Employees may self-pay for a maximum of twenty-nine months. The employee must pay the premium amounts for insurance coverage as premiums become due. If premiums are more than sixty days delinquent, insurance coverage will end as of the last day of the month for which a full premium was paid. Employees may continue any combination of medical, dental and life insurance; however, only employees on approved educational leave or called in to active duty in the uniformed services as defined under the Uniformed Services Employment and Reemployment Rights Act (USERRA) may continue either basic or both basic and optional long-term disability insurance. Employees in the following circumstances qualify to continue coverage under this subsection:

- (a) The employee is on authorized leave without pay;
- (b) The employee is on approved educational leave;
- (c) The employee is receiving time-loss benefits under workers' compensation;
- (d) The employee is called to active duty in the uniformed services as defined under the Uniformed Services Employment and Reemployment Rights Act (USERRA);
- (e) The employee's employment ends due to a layoff as defined in WAC 182-12-109; or
- (f) The employee is applying for disability retirement.

(2) The number of months that an employee self-pays the premium while eligible under subsection (1) of this section will count toward the total months of continuation coverage allowed under the federal Consolidated Omnibus Budget Reconciliation Act (COBRA). An employee who is no longer

eligible for continuation coverage as described in subsection (1) of this section but who has not used the maximum number of months allowed under COBRA may continue medical and dental for the remaining difference in months by self-paying the premium under COBRA as described in WAC 182-12-146.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-138 What options are available if an employee is approved for the federal Family and Medical Leave Act (FMLA)?** (1) Employees on approved leave under the federal Family and Medical Leave Act (FMLA) may continue to receive the employer contribution toward insurance coverage in accordance with the federal FMLA. These employees may also continue current optional life and optional long-term disability. The employee's employing agency is responsible for determining if the employee is eligible for leave under FMLA and the duration of such leave. If the employee's contribution toward premiums is more than sixty days delinquent, insurance coverage will end as of the last day of the month for which a full premium was paid.

(2) If an employee exhausts the period of leave approved under FMLA, insurance coverage may be continued by self-paying the full premium set by the HCA, with no contribution from the employer, under WAC 182-12-133(1) while on approved leave.

AMENDATORY SECTION (Amending Order 09-02, filed 11/17/09, effective 1/1/10)

**WAC 182-12-146 What options for continuation coverage are available to subscribers and dependents who become eligible under COBRA?** An enrollee can continue health plan coverage by self-paying the full premium set by the health care authority (HCA) in accordance with Consolidated Omnibus Budget Reconciliation Act (COBRA) regulations in the following circumstances:

(1) An employee((s and eligible)) or an employee's dependent(s) who ((become ineligible)) loses eligibility for the employer contribution toward public employees benefits board (PEBB) insurance coverage and who ((qualify)) qualifies for continuation coverage under ((the Consolidated Omnibus Budget Reconciliation Act (-)) COBRA((+)) may continue ((their)) medical ((and)), dental ((by self-paying the full premium set by the HCA in accordance with COBRA statutes and regulations)), or both.

(2) An employee or an employee's dependent who ((is no longer eligible)) loses eligibility for continuation coverage ((as described)) in WAC 182-12-133, 182-12-138, 182-12-141, 182-12-142, or 182-12-148((-)) but who has not used the maximum number of months allowed under COBRA((-)) may continue medical ((and)), dental, or both for the remaining difference in months ((by self-paying the premium under COBRA as described in subsection (1) of this section)).

(3) A retired ((and)) or disabled employee((s) who ((become ineligible)) loses eligibility for PEBB retiree insurance because an employer group, with the exception of school districts and educational service districts, ceases participation in PEBB insurance coverage may continue ((their))

medical ((and)), dental ((by self-paying the full premium set by the HCA, in accordance with COBRA statutes and regulations)), or both.

(4) A retired or disabled employee, or a dependent of a retired or disabled employee, who is no longer eligible to continue coverage under WAC 182-12-171 may continue medical, dental, or both.

AMENDATORY SECTION (Amending Order 09-02, filed 11/17/09, effective 1/1/10)

**WAC 182-12-148 What options for continuation coverage are available to employees during their appeal of dismissal?** (1) Employees awaiting hearing of a dismissal action before any of the following may continue their insurance coverage by self-paying the full premium set by the health care authority (HCA), with no contribution from the employer, on the same terms as an employee who is granted leave as described in WAC 182-12-133:

- (a) The personnel resources board;
- (b) An arbitrator; or
- (c) A grievance or appeals committee established under a collective bargaining agreement for union represented employees.

(2) If the dismissal is upheld, all insurance coverage will end at the end of the month in which the decision is entered, or the date to which premiums have been paid, whichever is ((earlier)) later, with the exception described in subsection (3) of this section.

(3) If the dismissal is upheld and the employee is eligible under the federal Consolidated Omnibus Budget Reconciliation Act (COBRA), the employee may continue medical and dental for the remaining months available under COBRA. See WAC 182-12-146 for information on COBRA. The number of months the employee self-paid premiums during the appeal will count toward the total number of months allowed under COBRA.

(4) If the board, arbitrator, committee, or court sustains the employee in the appeal and directs reinstatement of employer paid insurance coverage retroactively, the employing agency must forward to HCA the full employer contribution for the period directed by the board, arbitrator, committee, or court and collect from the employee the employee's share of premiums due, if any.

(a) HCA will refund to the employee any premiums the employee paid that may be provided for as a result of the reinstatement of the employer contribution only if the employee makes retroactive payment of any employee contribution amounts associated with the insurance coverage. In the alternative, at the request of the employee, HCA may deduct the employee's contribution from the refund of any premiums self-paid by the employee during the appeal period.

(b) All optional life and optional long-term disability insurance which was in force at the time of dismissal shall be reinstated retroactively only if the employee makes retroactive payment of premium for any such optional coverage which was not continued by self-payment during the appeal process. If the employee chooses not to pay the retroactive premium, evidence of insurability will be required to restore such optional coverage.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-171 When are retiring employees eligible to enroll in retiree insurance? (1) Procedural requirements.** Retiring employees must meet these procedural requirements, as well as have substantive eligibility under subsection (2) or (3) of this section.

(a) The employee must submit the appropriate forms to enroll or defer insurance coverage within sixty days after the employee's employer paid or COBRA coverage ends. The effective date of health plan enrollment will be the first day of the month following the loss of other coverage.

**Exception:** The effective dates of health plan enrollment for retirees who defer enrollment in a PEBB health plan at or after retirement are identified in WAC 182-12-200 and 182-12-205.

Employees who do not enroll in a public employees benefits board (PEBB) health plan at retirement are only eligible to enroll at a later date if they have deferred enrollment as identified in WAC 182-12-200 or 182-12-205 and maintained comprehensive employer-sponsored medical as defined in WAC 182-12-109.

(b) The employee and enrolled dependents who are entitled to medicare must enroll and maintain enrollment in both medicare parts A and B if the employee retired after July 1, 1991. If the employee or an enrolled dependent becomes entitled to medicare after enrollment in PEBB retiree insurance, he or she must enroll and maintain enrollment in medicare.

**Note:** If an enrollee who is entitled to medicare does not meet this procedural requirement, the enrollee is no longer eligible for enrollment in PEBB retiree insurance. The enrollee may continue PEBB health plan enrollment under COBRA (see WAC 182-12-146).

(2) **Eligibility requirements.** Eligible employees (as defined in WAC 182-12-114 and 182-12-131) who end public employment after becoming vested in a Washington state-sponsored retirement plan (as defined in subsection (4) of this section) are eligible to continue PEBB insurance coverage as a retiree if they meet procedural and eligibility requirements. To be eligible to continue PEBB insurance coverage as a retiree, the employee must be eligible to retire under a Washington state-sponsored retirement plan when the employee's employer paid or COBRA coverage ends.

Employees who do not meet their Washington state-sponsored retirement plan's age requirement((s)) when their employer paid or COBRA coverage ends, but who meet the age requirement within sixty days of coverage ending, may request that their eligibility be reviewed by the PEBB appeals committee to determine eligibility (see WAC 182-16-032). Employees must meet retiree insurance election procedural requirements.

((★)) Employees must immediately begin to receive a monthly retirement plan payment, with exceptions described below.

• Employees who receive a lump-sum payment instead of a monthly retirement plan payment are only eligible if ((this is required by)) the department of retirement systems ((because their monthly retirement plan payment is below the minimum payment that can be paid)) offered the employee

the choice between a lump sum actuarially equivalent payment and the ongoing monthly payment, as allowed by the plan.

• Employees who are members of a Plan 3 retirement, also called separated employees (defined in RCW 41.05-011((+5))) (20), are eligible if they meet their Plan 3 retirement plan's eligibility criteria when PEBB employee insurance coverage ends. They do not have to receive a retirement plan payment.

• Employees who are members of a Washington higher education retirement plan are eligible if they immediately begin to receive a monthly retirement plan payment, or meet their plan's retirement eligibility criteria, or are at least age fifty-five with ten years of state service.

~~((★ Employees who are permanently and totally disabled are eligible if they start receiving or defer a monthly disability retirement plan payment.))~~

• Employees not retiring under a Washington state-sponsored retirement plan must meet the same age and years of service as if the person had been employed as a member of either public employees retirement system Plan 1 or Plan 2 for the same period of employment.

• Employees who retire from a local government or tribal government that participates in PEBB insurance coverage for their employees are eligible to continue PEBB insurance coverage as retirees if the employees meet the procedural and eligibility requirements under this section.

(a) **Local government employees.** If the local government ends participation in PEBB insurance coverage, employees who enrolled after September 15, 1991, are no longer eligible for PEBB retiree insurance. These employees may continue PEBB health plan enrollment under COBRA (see WAC 182-12-146).

(b) **Tribal government employees.** If a tribal government ends participation in PEBB insurance coverage, its employees are no longer eligible for PEBB retiree insurance. These employees may continue PEBB health plan enrollment under COBRA (see WAC 182-12-146).

(c) **Washington state K-12 school district and educational service district employees for districts that do not participate in PEBB benefits.** Employees of Washington state K-12 school districts and educational service districts who separate from employment after becoming vested in a Washington state-sponsored retirement system are eligible to enroll in PEBB health plans when retired or permanently and totally disabled.

Except for employees who are members of a retirement Plan 3, employees who separate on or after October 1, 1993, must immediately begin to receive a monthly retirement plan payment from a Washington state-sponsored retirement system. Employees who receive a lump-sum payment instead of a monthly retirement plan payment are only eligible if the department of retirement systems ((requires this because their monthly retirement plan payment is below the minimum payment that can be paid)) offered the employee the choice between a lump sum actuarially equivalent payment and the ongoing monthly payment, as allowed by the plan or ((they)) the employee enrolled before 1995.

Employees who are members of a Plan 3 retirement, also called separated employees (defined in RCW 41.05.011

~~((15))~~ (20), are eligible if they meet their Plan 3 retirement plan's eligibility criteria when employer paid or COBRA coverage ends.

~~((Employees who separate from employment due to total and permanent disability, and are eligible for a deferred retirement allowance under a Washington state sponsored retirement system (as defined in chapter 41.32, 41.35 or 41.40 RCW) are eligible if they enrolled before 1995 or within sixty days following retirement.))~~

Employees who retired as of September 30, 1993, and began receiving a retirement allowance from a state-sponsored retirement system (as defined in chapter 41.32, 41.35 or 41.40 RCW) are eligible if they enrolled in a PEBB health plan not later than the HCA's annual open enrollment period for the year beginning January 1, 1995.

(3) **Elected and full-time appointed officials of the legislative and executive branches.** Employees who are elected and full-time appointed state officials (as defined under WAC 182-12-114(4)) who voluntarily or involuntarily leave public office are eligible to continue PEBB insurance coverage as a retiree if they meet the procedural ~~((and eligibility))~~ requirements in subsection (1) of this section. They do not have to meet the age and years of service requirements to receive a retirement plan payment from a state-sponsored retirement system.

(4) **Washington state-sponsored retirement systems include:**

- Higher education retirement plans;
- Law enforcement officers' and firefighters' retirement system;
- Public employees' retirement system;
- Public safety employees' retirement system;
- School employees' retirement system;
- State judges/judicial retirement system;
- Teachers' retirement system; and
- State patrol retirement system.

The two federal retirement systems, Civil Service Retirement System and Federal Employees' Retirement System, are considered a Washington state-sponsored retirement system for Washington State University Extension employees covered under the PEBB insurance coverage at the time of retirement or disability.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-205 May a retiree defer enrollment in a public employees benefits board (PEBB) health plan at or after retirement?** Except as stated in subsection (1)(c) of this section, if retirees defer enrollment in a PEBB health plan, they also defer enrollment for all eligible dependents. Retirees may not defer their retiree term life insurance, even if they have other life insurance, except as allowed in WAC 182-12-209(3).

(1) Retirees may defer enrollment in a PEBB health plan at or after retirement if continuously enrolled in other comprehensive employer-sponsored medical as identified below:

(a) Beginning January 1, 2001, retirees may defer enrollment if they are enrolled in comprehensive employer-spon-

sored medical as an employee or the dependent of an employee.

(b) Beginning January 1, 2001, retirees may defer enrollment if they are enrolled in medical as a retiree or the dependent of a retiree enrolled in a federal retiree plan.

(c) Beginning January 1, 2006, retirees may defer enrollment if they are enrolled in medicare Parts A and B and a medicaid program that provides creditable coverage as defined in this chapter. The retiree's dependents may continue their PEBB health plan enrollment if they meet PEBB eligibility criteria and are not eligible for creditable coverage under a medicaid program.

(2) To defer health plan enrollment, the retiree must submit the appropriate forms to the PEBB program requesting to defer. The PEBB program must receive the form before health plan enrollment is deferred or no later than sixty days after the date the retiree becomes eligible to apply for PEBB retiree insurance coverage.

(3) Retirees who defer may enroll in a PEBB health plan as follows:

(a) Retirees who defer while enrolled in comprehensive employer-sponsored medical may enroll in a PEBB health plan by submitting the appropriate forms and evidence of continuous enrollment in comprehensive employer-sponsored medical to the PEBB program:

(i) During annual open enrollment. ~~((PEBB health plan ((will)) coverage begins January 1st ((after the annual open enrollment.)) of the following year; or~~

(ii) No later than sixty days after their comprehensive employer-sponsored medical ends. ~~((PEBB health plan ((will)) coverage begins the first day of the month after the comprehensive employer-sponsored medical ends.(( ))~~

(b) Retirees who defer enrollment while enrolled as a retiree or dependent of a retiree in a federal retiree medical plan will have a one-time opportunity to enroll in a PEBB health plan by submitting the appropriate forms and evidence of continuous enrollment in a federal retiree medical plan to the PEBB program:

(i) During annual open enrollment. ~~((PEBB health plan ((will)) coverage begins January 1st ((after the annual open enrollment.)) of the following year; or~~

(ii) No later than sixty days after the federal retiree medical ends. ~~((Enrollment in the)) PEBB health plan ((will)) coverage begins the first day of the month after the federal retiree medical ends.(( ))~~

(c) Retirees who defer enrollment while enrolled in medicare Parts A and B and a medicaid program that provides creditable coverage as defined in this chapter may enroll in a PEBB health plan by submitting the appropriate forms and evidence of continuous enrollment in creditable coverage to the PEBB program:

(i) During annual open enrollment. ~~((Enrollment in the)) PEBB health plan ((will)) coverage begins January 1st ((after the annual open enrollment.)) of the following year; or~~

(ii) No later than sixty days after their medicaid coverage ends ~~((Enrollment in the)) PEBB health plan ((will)) coverage begins the first day of the month after the medicaid coverage ends(( ))~~; or

(iii) No later than the end of the calendar year when their medicaid coverage ends if the retiree was also determined eli-

gible under 42 U.S.C. § 1395w-114 and subsequently enrolled in a medicare Part D plan. ((~~Enrollment~~)) Enrollment in the PEBB health plan will begin January 1st following the end of the calendar year when the medicaid coverage ends.((~~))~~)

(d) Retirees who defer enrollment may enroll in a PEBB health plan if the retiree receives formal notice that the department of social and health services has determined it is more cost-effective to enroll the retiree or the retiree's eligible dependent(s) in PEBB medical than a medical assistance program.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-250 Insurance coverage eligibility for survivors of emergency service personnel killed in the line of duty.** Surviving spouses, ((~~Washington~~)) state registered domestic partners, and dependent children of emergency service personnel who are killed in the line of duty are eligible to enroll in health plans administered by the public employees benefits board (PEBB) program within health care authority (HCA).

(1) This section applies to the surviving spouse, the surviving ((~~Washington~~)) state registered domestic partner, and dependent children of emergency service personnel "killed in the line of duty" as determined by the Washington state department of labor and industries.

(2) "Emergency service personnel" means law enforcement officers and firefighters as defined in RCW 41.26.030, members of the Washington state patrol retirement fund as defined in RCW 43.43.120, and reserve officers and firefighters as defined in RCW 41.24.010.

(3) "Surviving spouse, ((~~Washington~~)) state registered domestic partner, and dependent children" means:

(a) A lawful spouse;

(b) An ex-spouse as defined in RCW 41.26.162;

(c) A ((~~Washington~~)) state registered domestic partner as defined in RCW 26.60.020(~~1~~); and

(d) Children. The term "children" includes children of the emergency service worker up to age twenty-six. Children with disabilities as defined in RCW 41.26.030(~~(7))~~ (~~6~~) are eligible at any age. "Children" is defined as:

(i) Biological children (including the emergency service worker's posthumous children);

(ii) Stepchildren or children of a ((~~Washington~~)) state registered domestic partner; and

(iii) Legally adopted children.

(4) Surviving spouses, ((~~Washington~~)) state registered domestic partners, and children who are entitled to medicare must enroll in both parts A and B of medicare.

(5) The survivor (or agent acting on their behalf) must submit the appropriate forms (to either enroll or defer enrollment in a PEBB health plan) to PEBB program no later than one hundred eighty days after the ((~~letter~~)) later of:

(a) The death of the emergency service worker;

(b) The date on the letter from the department of retirement systems or the board for volunteer firefighters and reserve officers that informs the survivor that he or she is determined to be an eligible survivor;

(c) The last day the surviving spouse, ((~~Washington~~)) state registered domestic partner, or child was covered under any health plan through the emergency service worker's employer; or

(d) The last day the surviving spouse, ((~~Washington~~)) state registered domestic partner, or child was covered under the Consolidated Omnibus Budget Reconciliation Act (COBRA) coverage from the emergency service worker's employer.

(6) Survivors who do not choose to defer enrollment in a PEBB health plan may choose among the following options for when their enrollment in a PEBB health plan will begin:

(a) June 1, 2006, for survivors whose appropriate forms are received by the PEBB program no later than September 1, 2006;

(b) The first of the month that is not earlier than sixty days before the date that the PEBB program receives the appropriate forms (for example, if the PEBB program receives the appropriate forms on August 29, the survivor may request health plan enrollment to begin on July 1); or

(c) The first of the month after the date that the PEBB program receives the appropriate forms.

For surviving spouses, ((~~Washington~~)) state registered domestic partners, and children who enroll, monthly health plan premiums must be paid by the survivor except as provided in RCW 41.26.510(5) and 43.43.285 (2)(b).

(7) Survivors must choose one of the following two options to maintain eligibility for PEBB insurance coverage:

(a) Enroll in a PEBB health plan:

(i) Enroll in medical; or

(ii) Enroll in medical and dental.

(iii) Survivors enrolling in dental must stay enrolled in dental for at least two years before dental can be dropped.

(iv) Dental only is not an option.

(b) Defer enrollment:

(i) Survivors may defer enrollment in a PEBB health plan if enrolled in comprehensive employer-sponsored medical.

(ii) Survivors may enroll in a PEBB health plan when they lose comprehensive employer-sponsored medical. Survivors will need to provide evidence that they were continuously enrolled in comprehensive employer-sponsored medical when applying for a PEBB health plan, and apply within sixty days after the date their other coverage ended.

(iii) PEBB health plan enrollment and premiums will begin the first day of the month following the day that the other coverage ended for eligible spouses and children who enroll.

(8) Survivors may change their health plan during annual open enrollment. In addition to annual open enrollment, survivors may change health plans as described in WAC 182-08-198.

(9) Survivors will lose their right to enroll in a PEBB health plan if they:

(a) Do not apply to enroll or defer PEBB health plan enrollment within the timelines stated in subsection (5) of this section; or

(b) Do not maintain continuous enrollment in comprehensive employer-sponsored medical through an employer



during the deferral period, as provided in subsection (7)(b)(i) of this section.

**AMENDATORY SECTION** (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-260 Who are eligible dependents?** To be enrolled in a health plan, a dependent must be eligible under this section and the subscriber must comply with enrollment procedures outlined in WAC 182-12-262.

The public employees benefits board (PEBB) program verifies the eligibility of all dependents and reserves the right to request documents from subscribers that provide evidence of a dependent's eligibility. The PEBB program will remove a subscriber's enrolled dependents from health plan enrollment if the PEBB program is unable to verify a dependent's eligibility. The PEBB program will not enroll or reenroll dependents into a health plan if the PEBB program is unable to verify a dependent's eligibility.

The subscriber must notify the PEBB program, in writing, no later than sixty days after the date his or her dependent is no longer eligible under this section. See WAC 182-12-262 (2)(a) for the consequences of not removing an ineligible dependent from coverage.

The following are eligible as dependents (~~under the PEBB eligibility rules~~):

(1) Lawful spouse. Former spouses are not eligible dependents upon finalization of a divorce or annulment, even if a court order requires the subscriber to provide health insurance for the former spouse.

(2) Domestic partner.

(a) Effective January 1, 2010, (~~Washington~~) a state registered domestic partner(s), as defined in RCW 26.60.020 (1).

(b) A domestic partner who was qualified under PEBB eligibility criteria as a domestic partner before January 1, 2010, and was continuously enrolled under the subscriber in a PEBB health plan or life insurance.

(c) Former (~~Washington~~) state registered domestic partners are not eligible dependents upon dissolution or termination of a partnership, even if a court order requires the subscriber to provide health insurance for the former partner.

(3) Children. Children are defined as the subscriber's biological children, stepchildren, legally adopted children, children for whom the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption of the child, children of the subscriber's (~~Washington~~) state registered domestic partner, or children specified in a court order or divorce decree. In addition, children include extended dependents in the legal custody or legal guardianship of the subscriber, the subscriber's spouse, or subscriber's (~~Washington~~) state registered domestic partner. The legal responsibility is demonstrated by a valid court order and the child's official residence with the custodian or guardian. "Children" does not include foster children for whom support payments are made to the subscriber through the state department of social and health services foster care program.

Eligible children include:

(a) Children up to age twenty-six.

(b) Effective January 1, 2011, children of any age with (~~disabilities~~) a disability, mental illness, or intellectual or other developmental (~~disabilities~~) disability who are incapable of self-support, provided such condition occurs before age twenty-six.

(i) The subscriber must provide evidence of the disability and evidence that the condition occurred before age twenty-six:

(ii) The subscriber must notify the PEBB program, in writing, no later than sixty days after the date that a child age twenty-six or older no longer qualifies under this subsection.

For example, children who become self-supporting are not eligible under this subsection as of the last day of the month in which they become capable of self-support.

(iii) Children age twenty-six and older who become capable of self-support do not regain eligibility under (b) of this subsection if they later become incapable of self-support.

(iv) The PEBB program will certify the eligibility of children with disabilities periodically.

(4) Parents.

(a) Parents covered under PEBB medical before July 1, 1990, may continue enrollment on a self-pay basis as long as:

(i) The parent maintains continuous enrollment in PEBB medical;

(ii) The parent qualifies under the Internal Revenue Code as a dependent of the subscriber;

(iii) The subscriber continues enrollment in PEBB insurance coverage; and

(iv) The parent is not covered by any other group medical plan.

(b) Parents eligible under this subsection may be enrolled with a different health plan than that selected by the subscriber. Parents may not add additional dependents to their insurance coverage.

**AMENDATORY SECTION** (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-262 When may subscribers enroll or remove eligible dependents?** (1) **Enrolling dependents in health plan coverage.** A dependent must be enrolled in the same health plan coverage as the subscriber, and the subscriber must be enrolled to enroll his or her dependent except as provided in WAC 182-12-205 (1)(c). Subscribers may enroll eligible dependents at the following times:

(a) **When the subscriber becomes eligible** and enrolls in public employees benefits board (PEBB) insurance coverage. If eligibility is verified and the dependent is enrolled, the dependent's effective date will be the same as the subscriber's effective date.

(b) **During the annual open enrollment.** PEBB health plan coverage begins January 1st of the following year.

(c) **During special open enrollment.** Subscribers may enroll dependents during a special open enrollment as described in subsection (3) of this section. The subscriber must satisfy the enrollment requirements as described in subsection (4) of this section.

**(2) Removing dependents from a subscriber's health plan coverage.**

(a) ~~((Subscribers are required to remove a dependent within sixty days of the date the dependent no longer))~~ A dependent's eligibility for enrollment in health plan coverage ends the last day of the month the dependent meets the eligibility criteria in WAC 182-12-250 or 182-12-260. Employees must notify their employing agency. All other subscribers must notify the PEBB program. ~~((The PEBB program will remove a subscriber's enrolled dependent the last day of the month in which the dependent ceases to meet the eligibility criteria.))~~ Consequences for not submitting notice within sixty days of any dependent ceasing to be eligible may include, but are not limited to:

(i) The dependent may lose eligibility to continue health plan coverage under one of the continuation coverage options described in WAC 182-12-270;

(ii) The subscriber may be billed for claims paid by the health plan for services that were rendered after the dependent lost eligibility;

(iii) The subscriber may not be able to recover subscriber-paid insurance premiums for dependents that lost their eligibility; and

(iv) The subscriber may be responsible for premiums paid by the state for the dependent's health plan coverage after the dependent lost eligibility.

**(b) Employees have the opportunity to remove dependents:**

(i) During the annual open enrollment. The dependent will be removed the last day of December; or

(ii) During a special open enrollment as described in subsections (3) and (4)(f) of this section.

**(c) Retirees, survivors, and enrollees with PEBB continuation coverage under WAC 182-12-133, 182-12-141, 182-12-142, 182-12-146, or 182-12-148 may remove dependents** from their coverage outside of the annual open enrollment or a special open enrollment by providing written notice to the PEBB program. Unless otherwise approved by the PEBB program, the dependent will be removed from the subscriber's coverage prospectively.

**(3) Special open enrollment.** Subscribers may enroll or remove their dependents outside of the annual open enrollment if a special open enrollment event occurs. The change in enrollment must correspond to the event that creates the special open enrollment for either the subscriber ~~((or))~~, the subscriber's dependents or both.

- Health plan coverage will begin the first of the month following the later of the event date or the date the form is received.

- Enrollment of extended dependents or dependents with a disability will be the first day of the month following eligibility certification.

- Dependents will be removed from the subscriber's health plan coverage the last day of the month following the later of the event date or the date the form is received.

- If the special open enrollment is due to the birth or adoption of a child, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption of a child, health plan coverage will begin or end the month in which the event occurs.

Any one of the following events may create a special open enrollment:

(a) Subscriber acquires a new dependent due to:

(i) Marriage or registering a domestic partnership ~~((with Washington's secretary of state))~~;

(ii) Birth, adoption, or when a subscriber has assumed a legal obligation for total or partial support in anticipation of adoption;

(iii) A child becoming eligible as an extended dependent through legal custody or legal guardianship; or

(iv) A child becoming eligible as a dependent with a disability;

(b) Subscriber or a subscriber's dependent loses other coverage under a group health plan or through health insurance coverage, as defined by the Health Insurance Portability and Accountability Act (HIPAA);

(c) Subscriber or a subscriber's dependent has a change in employment status that affects the subscriber's or the subscriber's dependent's eligibility for the employer contribution toward group health coverage;

(d) Subscriber ~~((receives))~~ or subscriber's dependent has a change in enrollment under another employer plan during its annual open enrollment that does not align with the PEBB program's annual open enrollment;

(e) Subscriber's dependent has a change in residence from outside of the United States to within the United States;

(f) A court order or national medical support ((order requiring)) notice (see also WAC 182-12-263) requires the subscriber ((, the subscriber's spouse, or the subscriber's Washington state registered domestic partner)) or any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former registered domestic partner is not an eligible dependent);

~~((or))~~ (g) Subscriber or a subscriber's dependent becomes eligible for state premium assistance through medicaid or a state children's health insurance program (CHIP), or the subscriber or dependent loses eligibility for coverage under medicaid or CHIP.

**(4) Enrollment requirements. Subscribers must submit the appropriate forms within the time frames described in this subsection.** Employees submit the appropriate forms to their employing agency. All other subscribers submit the appropriate forms to the PEBB program. In addition to the appropriate forms indicating dependent enrollment, the subscriber must provide the required documents as evidence of the dependent's eligibility; or as evidence of the event that created the special open enrollment.

(a) If a subscriber wants to enroll their eligible dependent(s) when the subscriber becomes eligible to enroll in PEBB benefits, the subscriber must include the dependent's enrollment information on the appropriate forms that the subscriber submits within the relevant time frame described in WAC 182-08-197, 182-12-171, or 182-12-250.

(b) If a subscriber wants to enroll eligible dependents during the annual open enrollment, the subscriber must submit the appropriate forms no later than the last day of the annual open enrollment.

(c) If a subscriber wants to enroll newly eligible dependents, the subscriber must submit the appropriate enrollment

forms no later than sixty days after the dependent becomes eligible except as provided in (d) of this subsection.

(d) If a subscriber wants to enroll a newborn or child whom the subscriber has adopted or has assumed a legal obligation for total or partial support in anticipation of adoption, the subscriber should notify the PEBB program by submitting an enrollment form as soon as possible to ensure timely payment of claims. If adding the child increases the premium, the subscriber must submit the appropriate enrollment form no later than twelve months after the date of the birth, adoption, or the date the legal obligation is assumed for total or partial support in anticipation of adoption.

(e) If the subscriber wants to enroll a child age twenty-six or older as a child with ~~((disabilities))~~ a disability, the subscriber must submit the appropriate form(s) no later than sixty days after the last day of the month in which the child reaches age twenty-six or within the relevant time frame described in WAC 182-12-262 (4)(a), (b), and (f).

(f) If the subscriber wants to change a dependent's enrollment status during a special open enrollment, the subscriber must submit the appropriate forms no later than sixty days after the event that creates the special open enrollment.

#### NEW SECTION

**WAC 182-12-263 National Medical Support Notice (NMSN) or court order.** When a National Medical Support Notice (NMSN) or court order requires a subscriber to provide health plan coverage for a dependent child the following provisions apply:

(1) The subscriber may enroll the dependent child and request changes to his or her health plan coverage as described under subsection (3) of this section. Employees submit the appropriate forms to their employing agency. All other subscribers submit the appropriate forms to the PEBB program.

(2) If the subscriber fails to request enrollment or health plan coverage changes as directed by the NMSN or court order, the employing agency or the PEBB program may make enrollment or health plan coverage changes according to subsection (3) of this section upon request of:

- (a) The child's other parent; or
- (b) Child support enforcement program.

(3) Changes to health plan coverage or enrollment are allowed as directed by the NMSN or court order:

(a) The dependent will be enrolled under the subscriber's health plan coverage as directed by the NMSN or court order;

(b) An employee who has waived medical under WAC 182-12-128 will be enrolled in medical coverage as directed by the NMSN or court order, in order to enroll the dependent;

(c) The subscriber's selected health plan will be changed if directed by the NMSN or court order;

(d) If the dependent is already enrolled under another PEBB subscriber, the dependent will be removed from the other health plan coverage and enrolled as directed by the NMSN or court order.

(4) Health plan enrollment will begin the first day of the month following receipt of the NMSN or court order. If the NMSN or court order requires a change from the subscriber's

selected health plan, the change will begin the first day of the month following receipt of the NMSN or court order.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-12-265 What options for continuing health plan enrollment are available to widows, widowers and dependent children if the employee or retiree dies?** The ~~((surviving))~~ dependent of an eligible employee or retiree who meets the eligibility criteria in subsection (1), (2), or (3) of this section is eligible to enroll ~~((in))~~ as a survivor under public employees benefits board (PEBB) retiree insurance coverage ~~((as a surviving dependent))~~. An eligible ~~((surviving spouse, Washington state registered domestic partner, or child must))~~ survivor must submit the appropriate forms to enroll ~~((in))~~ or defer enrollment in a PEBB medical plan no later than sixty days after the date of the employee's or retiree's death.

(1) ~~((Dependents))~~ An employee's spouse, state registered domestic partner or child who ~~((lose))~~ loses eligibility due to the death of an eligible employee may ~~((continue enrollment in a PEBB health plan))~~ enroll or defer enrollment as a survivor under retiree insurance coverage provided they immediately begin receiving a monthly retirement benefit from any state of Washington sponsored retirement system.

(a) The employee's spouse or ~~((Washington))~~ state registered domestic partner may continue health plan enrollment until death.

(b) The employee's children may continue health plan enrollment until they lose eligibility under ~~((PEBB rules))~~ WAC 182-12-260.

~~((c))~~ If a surviving spouse, Washington state registered domestic partner, or child of an eligible employee is not eligible for a monthly retirement benefit (or a lump-sum payment because the monthly pension payment would be less than the minimum amount established by the department of retirement systems) the dependent is not eligible for PEBB retiree insurance as a survivor. However, the dependent may continue health plan enrollment under provisions of the federal Consolidated Omnibus Budget Reconciliation Act (COBRA) or WAC 182-12-270.

~~((d))~~ The two federal retirement systems, Civil Service Retirement System and Federal Employees Retirement System, shall be considered a Washington sponsored retirement system for Washington State University extension service employees who were covered under PEBB insurance coverage at the time of death.

**Note:** If a spouse, state registered domestic partner, or child of an eligible employee is not eligible for a monthly retirement benefit, the dependent is not eligible to enroll as a survivor under retiree insurance coverage. However, the dependent may continue health plan enrollment as described in WAC 182-12-146.

(2) ~~((Dependents))~~ A retiree's spouse, state registered domestic partner or child who ~~((lose))~~ loses eligibility due to the death of ~~((a PEBB))~~ an eligible retiree may ~~((continue health plan))~~ enroll or defer enrollment as a survivor under retiree insurance.

(a) The retiree's spouse or (~~(Washington)~~) state registered domestic partner may continue health plan enrollment until death.

(b) The retiree's children may continue health plan enrollment until they lose eligibility under (~~(PEBB rules)~~) WAC 182-12-260.

(c) (~~(Dependents, who are)~~) If a spouse, state registered domestic partner or child of an eligible retiree is not enrolled in a PEBB health plan at the time of the retiree's death, (are) the dependent is eligible to enroll or defer enrollment in a PEBB health plan as a survivor under retiree insurance. ((A)) The dependent must submit the appropriate form(s) to enroll or defer PEBB health plan enrollment ((must be hand-delivered or mailed to the PEBB program)) no later than sixty days after the retiree's death. To enroll in a PEBB health plan, the dependent must provide ((satisfactory)) evidence of continuous enrollment in ((other)) medical coverage from the most recent open enrollment for which ((enrollment)) the dependent was not enrolled in a PEBB ((was deferred)) medical plan prior to the retiree's death.

(3) (~~(Surviving)~~) The spouse(s), ((Washington)) state registered domestic partner(s), or ((eligible children)) child of a deceased school district or educational service district employee ((who were not enrolled)) is eligible to enroll or defer enrollment in a health plan as a survivor under PEBB retiree insurance coverage at the time of the ((subscriber's)) employee's death ((may enroll in a PEBB health plan)) provided the employee died on or after October 1, 1993((-and)), The dependent((s)) must immediately ((began)) begin receiving a retirement benefit allowance under chapter 41.32, 41.35 or 41.40 RCW and submit the appropriate form to enroll or defer enrollment in a PEBB medical plan no later than sixty days after the date of the employee's death.

(a) The employee's spouse or (~~(Washington)~~) state registered domestic partner may continue health plan enrollment until death.

(b) The employee's children may continue health plan enrollment until they lose eligibility under (~~(PEBB rules)~~) WAC 182-12-260.

(4) (~~(Surviving dependents must notify the PEBB program of their decision to enroll or defer enrollment in a PEBB health plan no later than sixty days after the date of death of the employee or retiree.~~)

Note:)) If a premium payment received by the authority is sufficient to maintain health plan enrollment ((continues)) after the employee's or retiree's death, the PEBB program will consider the payment as notice of the survivor's intent to continue enrollment.

If (~~(PEBB health plan)~~) the dependent's enrollment ended due to the death of the employee or retiree, the PEBB program will reinstate ((health plan)) the survivor's enrollment without a gap subject to payment of premium.

(5) In order to avoid duplication of group medical coverage, surviving dependents may defer enrollment in a PEBB health plan under WAC 182-12-200 and 182-12-205. (~~(To notify the PEBB program of their intent to enroll or defer enrollment in a PEBB health plan, the surviving dependent must submit the appropriate forms to the PEBB program no later than sixty days after the date of death of the employee or retiree.))~~)

AMENDATORY SECTION (Amending Order 09-02, filed 11/17/09, effective 1/1/10)

**WAC 182-12-270 What options for continuation coverage are available to dependents who cease to meet the eligibility criteria in WAC 182-12-260?** If eligible, dependents may continue health plan enrollment under one of the continuation coverage options in subsection (1) or (2) of this section by self-paying the full premiums set by the health care authority (HCA), with no contribution from the employer, following their loss of eligibility under the subscriber's health plan coverage. The public employees benefits board (PEBB) program must receive the appropriate forms as outlined in the *PEBB Initial Notice of COBRA and Continuation Coverage Rights*. Options for continuing health plan enrollment are based on the reason that eligibility was lost.

(1) Spouses, (~~(Washington)~~) state registered domestic partners, or children who lose eligibility due to the death of an employee or retiree may be eligible to continue health plan enrollment under provisions of WAC 182-12-250 or 182-12-265; or

(2) Dependents who lose eligibility because they no longer meet the eligibility criteria in WAC 182-12-260 are eligible to continue health plan enrollment under provisions of the federal Consolidated Omnibus Budget Reconciliation Act (COBRA). See WAC 182-12-146 for more information on COBRA.

**Exception:**

A (~~(qualified domestic partner)~~) dependent who loses eligibility because (~~(he or she no longer meets the eligibility criteria in WAC 182-12-260))~~ a domestic partnership or same-sex marriage is dissolved may continue health plan enrollment under an extension of PEBB insurance coverage for a maximum of thirty-six months.

No PEBB continuation coverage will be offered unless the PEBB program is notified through hand-delivery or United States Postal Service mail of the qualifying event as outlined in the *PEBB Initial Notice of COBRA and Continuation Coverage Rights*.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 182-12-175

May a local government entity or tribal government entity applying for participation in PEBB insurance coverage include their retirees in the transfer unit?

AMENDATORY SECTION (Amending Order 08-03, filed 10/1/08, effective 1/1/09)

**WAC 182-16-010 Adoption of model rules of procedure.** The model rules of procedure adopted by the chief administrative law judge pursuant to RCW 34.05.250, as now or hereafter amended, are hereby adopted for use by (~~(this agency))~~ the authority in public employees benefits board (PEBB) benefits related proceedings. Those rules may be

found in chapter 10-08 WAC. Other procedural rules adopted in this title are supplementary to the model rules of procedure. In the case of a conflict between the model rules of procedure and the procedural rules adopted in this title, the procedural rules adopted in this title shall govern.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-16-020 Definitions.** As used in this chapter the term:

~~("Agency")~~ "Authority" or "HCA" means the health care authority~~(s)~~.

"Dependent care assistance program" or "DCAP" means a benefit plan whereby state and public employees may pay for certain employment related dependent care with pretax dollars as provided in the salary reduction plan authorized in chapter 41.05 RCW.

"Director" means the director of the ~~((health care))~~ authority ~~((HCA) or designee)~~.

"Employer group" means those employee organizations representing state civil service employees, counties, municipalities, political subdivisions, the Washington health benefit exchange, tribal governments, school districts, and educational service districts participating in PEBB insurance coverage under contractual agreement as described in WAC ~~((182-08-230))~~ 182-08-245.

"Employing agency" means a division, department, or separate agency of state government, including an institution of higher education; a county, municipality, school district, educational service district, or other political subdivision; or a tribal government covered by chapter 41.05 RCW.

"Enrollee" means a person who meets all eligibility requirements defined in chapter 182-12 WAC, who is enrolled in PEBB benefits, and for whom applicable premium payments have been made.

"Health plan" or "plan" means a medical or dental plan developed by the public employees benefits board and provided by a contracted vendor or self-insured plans administered by the HCA.

"Institutions of higher education" means the state public research universities, the public regional universities, The Evergreen State College, the community and technical colleges, and includes the higher education personnel board and the state board for community and technical colleges.

"Insurance coverage" means any health plan, life insurance, long-term care insurance, ~~((long term disability))~~ LTD insurance, or property and casualty insurance administered as a PEBB benefit.

"LTD insurance" includes basic long-term disability insurance paid for by the employing agency and long-term disability insurance offered to employees on an optional basis.

"Medical flexible spending arrangement" or "medical FSA" means a benefit plan whereby state and public employees may reduce their salary before taxes to pay for medical expenses not reimbursed by insurance as provided in the salary reduction plan authorized in chapter 41.05 RCW.

"PEBB" means the public employees benefits board.

"PEBB appeals committee" means the committee that considers appeals relating to the administration of PEBB benefits by the PEBB program. The director has delegated the authority to hear appeals at the level below an administrative hearing to the PEBB appeals committee.

"PEBB benefits" means one or more insurance coverages or other employee benefits administered by the PEBB program within the ~~((HCA))~~ health care authority.

"PEBB program" means the program within the HCA which administers insurance and other benefits for eligible employees (as defined in WAC 182-12-114), eligible retired and disabled employees ~~((of the state))~~ (as defined in WAC 182-12-171), eligible dependents (as defined in WAC 182-12-250 and 182-12-260), and others as defined in RCW 41.05.011.

"Premium payment plan" means a benefit plan whereby state and public employees may pay their share of group health plan premiums with pretax dollars as provided in the salary reduction plan.

"Salary reduction plan" means a benefit plan whereby state and public employees may agree to a reduction of salary on a pretax basis to participate in the DCAP, medical FSA, or premium payment plan as authorized in chapter 41.05 RCW.

"State agency" means an office, department, board, commission, institution, or other separate unit or division, however designated, of the state government and all personnel thereof. It includes the legislature, executive branch, and agencies or courts within the judicial branch, as well as institutions of higher education and any unit of state government established by law.

"Subscriber" means the employee, retiree, COBRA beneficiary or eligible survivor who has been designated by the HCA as the individual to whom the HCA and contracted vendors will issue all notices, information, requests and premium bills on behalf of enrollees.

"Tribal government" means an Indian tribal government as defined in Section 3(32) of the Employee Retirement Income Security Act of 1974 (ERISA), as amended, or an agency or instrumentality of the tribal government, that has government offices principally located in this state.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-16-025 Where do members appeal decisions regarding eligibility, enrollment, premium payments, or the administration of benefits?**

**Note:** Eligibility decisions address whether a subscriber or a subscriber's dependent is entitled to insurance coverage, as described in public employees benefits board (PEBB) rules and policies. Enrollment decisions address the application for PEBB benefits as described in PEBB rules and policies including, but not limited to, the submission of proper documentation and meeting enrollment deadlines.

(1) Any employee of a state agency or his or her dependent aggrieved by a decision made by the employing state agency with regard to public employee benefits eligibility or enrollment may appeal that decision to the employing state agency by the process outlined in WAC 182-16-030.

(2) Any employee of an employer group or his or her dependent who is aggrieved by a decision made by an

employer group with regard to PEBB eligibility or enrollment may appeal that decision to the employer group through the process established by the employer group.

**Exception:** Appeals by an employee of an employer group or his or her dependent based on eligibility or enrollment decisions regarding life insurance or ~~((long-term disability))~~ LTD insurance must be made to the PEBB appeals committee by the process described in WAC 182-16-032.

(3) Any subscriber or dependent aggrieved by a decision made by the PEBB program with regard to public employee benefits eligibility, enrollment, or premium payments may appeal that decision to the PEBB appeals committee by the process described in WAC 182-16-032.

(4) Any PEBB enrollee aggrieved by a decision regarding the administration of a PEBB medical plan, self-insured dental plan, insured dental plan, life insurance ~~((long-term care insurance, long-term disability insurance, or property and casualty))~~ or LTD insurance may appeal that decision by following the appeal provisions of those plans, with the exception of eligibility, enrollment, and premium payment determinations.

(5) Any PEBB enrollee aggrieved by a decision regarding the administration of PEBB long-term care insurance or property and casualty insurance may appeal that decision by following the appeal provisions of those plans.

(6) Any PEBB enrollee aggrieved by a decision regarding the medical flexible spending arrangement (FSA) or dependent care assistance program (DCAP) offered under the state's salary reduction plan may appeal that decision by the process described in WAC 182-16-036.

AMENDATORY SECTION (Amending Order 10-02, filed 10/6/10, effective 1/1/11)

**WAC 182-16-030 How can an employee or an employee's dependent appeal a decision made by a state agency about eligibility or enrollment in benefits?** (1) An eligibility or enrollment decision made by an employing state agency may be appealed by submitting a written request for review to the employing state agency. The employing state agency must receive the request for review within thirty days of the date of the initial denial notice. The contents of the request for review are to be provided in accordance with WAC 182-16-040.

(a) Upon receiving the request for review, the employing state agency shall make a complete review of the initial denial by one or more staff who did not take part in the initial denial. As part of the review, the employing state agency may hold a formal meeting or hearing, but is not required to do so.

(b) The employing state agency shall render a written decision within thirty days of receiving the request for review. The written decision shall be sent to the appellant.

(c) A copy of the employing state agency's written decision shall be sent to the employing state agency's administrator or designee and to the public employees benefits board (PEBB) appeals manager. The employing state agency's written decision shall become the employing state agency's final decision effective fifteen days after the date it is rendered.

(d) The employing state agency may reverse eligibility or enrollment decisions based only on circumstances that

arose due to delays caused by the employing state agency or error(s) made by the employing state agency.

(2) Any employee or employee's dependent who disagrees with the employing state agency's decision in response to a request for review, as described in subsection (1) of this section, may appeal that decision by submitting a notice of appeal to the PEBB appeals committee. The PEBB appeals manager must receive the notice of appeal within thirty days of the date of the employing state agency's written decision on the request for review.

The contents of the notice of appeal are to be provided in accordance with WAC 182-16-040.

(a) The PEBB appeals manager shall notify the appellant in writing when the notice of appeal has been received.

(b) The PEBB appeals committee shall render a written decision to the appellant within thirty days of receiving the notice of appeal. The ((written decision shall be sent to the appellant)) committee may extend the thirty-day time requirement for rendering a decision upon issuing a written finding of good cause explaining the cause for the delay.

(c) Any appellant who disagrees with the decision of the PEBB appeals committee may request an administrative hearing, as described in WAC 182-16-050.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-16-032 How can a decision made by the public employees benefits board (PEBB) program regarding eligibility, enrollment, or premium payments; or a decision made by an employer group regarding life insurance or ~~((long-term disability))~~ LTD insurance be appealed?** (1) An eligibility, enrollment, or premium payment decision made by the public employees benefits board (PEBB) program may be appealed by submitting a notice of appeal to the PEBB appeals committee.

(2) An eligibility or enrollment decision made by an employer group regarding life insurance or ~~((long-term disability))~~ LTD insurance may be appealed by submitting a notice of appeal to the PEBB appeals committee.

(3) The contents of the notice of appeal are to be provided in accordance with WAC 182-16-040.

(4) The notice of appeal from an employee or employee's dependent must be received by the PEBB appeals manager within thirty days of the date of the denial notice.

(5) The notice of appeal from a retiree, self-pay enrollee, or dependent of a retiree or self-pay enrollee must be received by the PEBB appeals manager within sixty days of the date of the denial notice.

(6) The PEBB appeals manager shall notify the appellant in writing when the notice of appeal has been received.

(7) The PEBB appeals committee shall render a written decision to the appellant within thirty days of receiving the notice of appeal. The ((written decision shall be sent to the appellant)) committee may extend the thirty-day time requirement for rendering a decision upon issuing a written finding of good cause explaining the cause for the delay.

(8) Any appellant who disagrees with the decisions of the PEBB appeals committee may request an administrative hearing, as described in WAC 182-16-050.

AMENDATORY SECTION (Amending Order 09-02, filed 11/17/09, effective 1/1/10)

**WAC 182-16-036 How can an enrollee appeal a decision regarding the administration of benefits offered under the state's salary reduction plan?** (1) Any enrollee aggrieved by a decision regarding the medical FSA and DCAP offered under the state's salary reduction plan may appeal that decision to the third-party administrator contracted to administer the plan.

(2) Any enrollee who disagrees with a decision in response to an appeal filed with the third-party administrator that administers the medical FSA and DCAP under the state's salary reduction plan may appeal to the public employees benefits board (PEBB) appeals committee. The PEBB appeals manager must receive the notice of appeal within thirty days of the date of the appeal decision by the third-party administrator that administers the medical FSA and DCAP offered under the state's salary reduction plan. The contents of the notice of appeal are to be provided in accordance with WAC 182-16-040.

(a) The PEBB appeals manager shall notify the appellant in writing when the notice of appeal has been received.

(b) The PEBB appeals committee shall render a written decision to the appellant within thirty days of receiving the notice of appeal. The ~~((written decision shall be sent to the appellant))~~ committee may extend the thirty-day time requirement for rendering a decision upon issuing a written finding of good cause explaining the cause for the delay.

(c) Any appellant who disagrees with the decision of the PEBB appeals committee may request an administrative hearing, as described in WAC 182-16-050.

(3) Any enrollee aggrieved by a decision regarding the administration of the premium payment plan offered under the state's salary reduction plan may appeal that decision to the PEBB appeals committee. The PEBB appeals manager must receive the notice of appeal within thirty days of the date of the denial notice by the PEBB program. The contents of the notice of appeal are to be provided in accordance with WAC 182-16-040.

(a) The PEBB appeals manager shall notify the appellant in writing when the notice of appeal has been received.

(b) The PEBB appeals committee shall render a written decision to the appellant within thirty days of receiving the notice of appeal. The ~~((written decision shall be sent to the appellant))~~ committee may extend the thirty-day time requirement for rendering a decision upon issuing a written finding of good cause explaining the cause for the delay.

(c) Any appellant who disagrees with the decision of the PEBB appeals committee may request an administrative hearing, as described in WAC 182-16-050.

AMENDATORY SECTION (Amending Order 08-03, filed 10/1/08, effective 1/1/09)

**WAC 182-16-038 How can an entity or organization appeal a decision of the health care authority to deny ~~((its participation in PEBB))~~ an employer group application?** ~~((Any))~~ An entity or organization whose employer group application ~~((to participate in PEBB benefits has been))~~ is denied by the authority may appeal the decision to the public

employees benefits board (PEBB) appeals committee. For rules regarding eligible entities, see WAC 182-12-111. The PEBB appeals manager must receive the notice of appeal within thirty days of the date of the denial notice. The contents of the notice of appeal are to be provided in accordance with WAC 182-16-040.

(1) The PEBB appeals manager shall notify the appealing party in writing when the notice of appeal has been received.

(2) The PEBB appeals committee shall render a written decision to the appellant on the notice of appeal within thirty days of receiving the notice of appeal. The ~~((written decision shall be sent to the appealing party))~~ committee may extend the thirty-day time requirement for rendering a decision upon issuing a written finding of good cause explaining the cause for the delay.

(3) Any appealing party aggrieved with the decision of the PEBB appeals committee may request an administrative hearing, as described in WAC 182-16-050.

AMENDATORY SECTION (Amending Order 11-02, filed 10/26/11, effective 1/1/12)

**WAC 182-16-050 How can an enrollee or entity request a hearing if aggrieved by a decision made by the public employees benefits board (PEBB) appeals committee?** (1) Any party aggrieved by a decision of the public employees benefits board (PEBB) appeals committee, may request an administrative hearing.

(2) The request must be made in writing to the PEBB appeals manager. The PEBB appeals manager must receive the request for an administrative hearing within thirty days of the date of the written decision by the PEBB appeals committee.

(3) The ~~((agency))~~ authority shall set the time and place of the hearing and give not less than twenty days notice to all parties.

(4) The director, or his or her designee, shall preside at all hearings resulting from the filings of appeals under this chapter.

(5) All hearings must be conducted in compliance with these rules, chapter 34.05 RCW and chapter 10-08 WAC as applicable.

(6) Within ninety days after the hearing record is closed, the director or his or her designee shall render a decision which shall be the final decision of the ~~((agency))~~ authority. A copy of that decision shall be mailed to all parties.

#### NEW SECTION

**WAC 182-16-060 Index of significant decisions.** (1) A final decision may be relied upon, used, or cited as precedent by a party if the final order has been indexed in the authority's index of significant decisions in accordance with RCW 34.05.473 (1)(b).

(2) The index of significant decisions is available to the public at the health care authority (HCA) internet page. As decisions are indexed they will be linked on this page. For additional information on how to obtain a copy of the index, contact the HCA hearing representative.

(3) A final decision published in the index of significant decisions may be removed from the index when:

(a) A precedential published decision entered by the court of appeals or the supreme court reverses an indexed final decision; or

(b) HCA determines that the indexed final decision is no longer precedential due to changes in statute, rule or policy.

**WSR 12-16-075**  
**PROPOSED RULES**  
**SUPERINTENDENT OF**  
**PUBLIC INSTRUCTION**

[Filed July 31, 2012, 11:37 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-12-037.

Title of Rule and Other Identifying Information: WAC 392-343-019 Definition instructional space.

Hearing Location(s): Office of Superintendent of Public Instruction (OSPI), Old Capitol Building, Wanamaker, P.O. Box 47200, Olympia, WA 98504-7200, on September 4, 2012, at 10:00 a.m.

Date of Intended Adoption: September 4, 2012.

Submit Written Comments to: Scott Black, OSPI, Old Capitol Building, P.O. Box 47200, 600 Washington Street S.E., Olympia, WA 98504-7200, e-mail Scott.black@k12.wa.us, fax (360) 586-3946, by September 3, 2012.

Assistance for Persons with Disabilities: Contact Wanda Griffin by September 1, 2012, TTY (360) 664-3631 or (360) 725-6132.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Amendment will implement legislative intent to exclude colocated spaces on a "host" district inventory where more than one district jointly administers facilities such as skills centers or a new Delta STEM facility.

Statutory Authority for Adoption: RCW 28A.150.290.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: [OSPI], governmental.

Name of Agency Personnel Responsible for Drafting: Scott Black, P.O. Box 47200, Olympia, WA 98504-7200, (360) 725-6268; Implementation: Brenda Hetland, P.O. Box 47200, Olympia, WA 98504-7200, (360) 725-6263; and Enforcement: Gordon Beck, P.O. Box 47200, Olympia, WA 98504-7200, (360) 725-6268.

No small business economic impact statement has been prepared under chapter 19.85 RCW. A small business economic impact statement is not required pursuant to RCW 19.85.030 (1)(a). The proposed rule making does not impose any costs on school districts.

A cost-benefit analysis is not required under RCW 34.05.328.

July 31, 2012  
Randy Dorn  
State Superintendent

AMENDATORY SECTION (Amending WSR 06-16-032, filed 7/25/06, effective 8/25/06)

**WAC 392-343-019 Definition—Instructional space.**

As used in this chapter, the term "instructional space" means the gross amount of square footage calculated in accordance with the *American Institute of Architects, Document D101, The Architectural Area and Volume of Buildings*, latest edition, for a school facility utilized by a school district for the purpose of instructing students: Provided, That the following areas shall not be included in any calculation of instructional space:

- (1) Exterior covered walkways, cantilevered or supported.
- (2) Exterior porches including loading platforms.
- (3) Areas located above instructional spaces which are either vacant or primarily housing mechanical and/or electrical equipment.
- (4) Space used by central administrative personnel.
- (5) Stadia and grandstands.
- (6) Bus garages.
- (7) Free-standing warehouse space specifically designed for that purpose.
- (8) Portable facilities.
- (9) Other square footage not otherwise available or related to direct instruction or instructional support of the education program in the district.
- (10) The portion(s) of any space(s) constructed from grants made as a gift to a school district by a private entity or a public entity which:
  - (a) Is dedicated by the written terms of the grant to joint use by the school district for educational purposes and by the general public for community activities for the useful life of the space(s); and
  - (b) The school district board of directors has accepted the gift in accordance with the joint use terms of the grant: Provided, That this exception does not apply to space(s) jointly financed by two or more school districts.
- (11) Facilities that are shared or colocated between multiple school districts pursuant to a written, lawful agreement and that are jointly used by and/or benefit those school districts.

**WSR 12-16-076**  
**PROPOSED RULES**  
**SUPERINTENDENT OF**  
**PUBLIC INSTRUCTION**

[Filed July 31, 2012, 11:42 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-12-069.

Title of Rule and Other Identifying Information: WAC 392-343-025 State funding assistance percentage—General and 392-343-045 Space allocations—Enrollment projections provision.

Hearing Location(s): Office of Superintendent of Public Instruction, Old Capitol Building, Wanamaker, P.O. Box



47200, Olympia, WA 98504-7200, on September 4, 2012, at 10:30 a.m.

Date of Intended Adoption: September 4, 2012.

Submit Written Comments to: Scott Black, OSPI, Old Capitol Building, P.O. Box 47200, 600 Washington Street S.E., Olympia, WA 98504-7200, e-mail Scott.black@k12.wa.us, fax (360) 586-3946, by September 3, 2012.

Assistance for Persons with Disabilities: Contact Wanda Griffin by September 1, 2012, TTY (360) 664-3631 or (360) 725-6132.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Changes to WAC 392-343-025 State funding assistance percentate [percentage]—General and 392-343-045 Space allocations—Enrollment projections provision.

Changes are necessary to respond to language in SSB 6002 for revised K-linear cohort projection methodology and new funding assistance percentages (matching) ratios affecting projects [projects] expected to qualify for school construction assistance program funding.

Statutory Authority for Adoption: RCW 28A.150.290.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: [OSPI], governmental.

Name of Agency Personnel Responsible for Drafting: Scott Black, P.O. Box 47200, Olympia, WA 98504-7200, (360) 725-6268; Implementation: Brenda Hetland, P.O. Box 47200, Olympia, WA 98504-7200, (360) 725-6263; and Enforcement: Gordon Beck, P.O. Box 47200, Olympia, WA 98504-7200, (360) 725-6268.

No small business economic impact statement has been prepared under chapter 19.85 RCW. A small business economic impact statement is not required to pursuant to RCW 19.85.030 (1)(a). The proposed rule making does not impose any costs on school districts.

A cost-benefit analysis is not required under RCW 34.05.328.

July 31, 2012

Randy Dorn  
State Superintendent

AMENDATORY SECTION (Amending WSR 10-09-008, filed 4/8/10, effective 5/9/10)

**WAC 392-343-025 State funding assistance percentage—General.** (1) The state funding assistance percentage for which a school district is eligible, if otherwise qualified under prevailing statutory provisions and rules and regulations of the superintendent of public instruction, shall be determined in accordance with the state funding assistance percentage formula set forth in RCW 28A.525.166.

(2) In the event the state funding assistance percentage to any school district computed in accordance with RCW 28A.525.166(2) is less than twenty percent and such school district otherwise is eligible for state funding assistance under statutory provisions and the superintendent of public instruction regulations, the percentage for such district shall be twenty percent of the state allowable costs of the project.

(3) In addition to the computed state funding assistance percentage as stated above, a school district as provided in

RCW 28A.525.166(3), shall be entitled to additional percentage points determined by the average percentage of growth for the past three years. One percent shall be added to the computed state funding assistance percentage for each average percent of student growth for the past three years, with a maximum addition of twenty percent. In no case shall the state funding assistance exceed one hundred percent of the maximum allowable cost of the project.

(4) For the purpose of calculating the state funding assistance percentage, the October student headcount (kindergarten through grade twelve students) shall be based on enrollment reported on the October P-223 form on or before the October due date. The headcount shall exclude alternative learning experience (ALE) students who reside outside the school district, as reported on the office of superintendent of public instruction (OSPI) school apportionment and financial services October alternative learning experience monthly enrollment report on or before the November due date.

In accordance with chapter 28A.525 RCW, as an alternative to the above headcount a school district may request the OSPI to increase the headcount by the difference in the number of ALE students, residing outside the district who physically attend the school for more than one hour per day, three days or more per week, compared to the number of ALE students, residing inside the district, that did not physically attend the school for more than one hour per day, three days or more per week.

Any school district requesting the above alternative calculation must do so on an OSPI school facilities and organization alternative calculation for alternative learning students form on or before December 31st of that year.

For purposes of this section (ALE) students shall be defined as in RCW 28A.150.325.

AMENDATORY SECTION (Amending WSR 10-09-008, filed 4/8/10, effective 5/9/10)

**WAC 392-343-045 Space allocations—Enrollment projection provisions.** In planning for construction of all school facilities, a school district shall estimate capacity needs on the basis of the following:

- (1) A three or five-year cohort survival enrollment projection for growth districts, whichever is greater;
- (2) A three or five-year cohort survival enrollment projection for a declining district, whichever is lesser;
- (3) Actual enrollment of preschool students with developmental disabilities; and
- (4) Supplemental information regarding district growth factors which may include but not be limited to the following types of information:
  - (a) County live birth rates;
  - (b) New housing starts;
  - (c) Utility/telephone hookups; and
  - (d) Economic/industrial expansion.

(5) For the purposes of this section, kindergarten students and students with developmental disabilities shall be counted as provided under WAC 392-343-035 and all other ~~(grade one through twelve students shall be counted as October count day full-time equivalent students as reported to the superintendent of public instruction. Provided, That a school~~

~~district which has or has had an annual average full-time equivalent enrollment of over five hundred, and which applied for and received additional state basic education allocation moneys based upon an enrollment increase after the first of the month enrollment count, may use the average of the two highest monthly full-time equivalent enrollment counts during the school year) October student headcount (kindergarten through grade twelve students) shall be based on enrollment reported on the October P-223 form reported on or before the October due date. The headcount shall exclude alternative learning experience (ALE) students who reside outside the school district, as reported on the office of superintendent of public instruction (OSPI) school apportionment and financial services October alternative learning experience monthly enrollment report on or before the November due date.~~

In accordance with chapter 28A.525 RCW, as an alternative to the above headcount a school district may request the OSPI to increase the headcount by the difference in the number of ALE students, residing outside the district who physically attend the school for more than one hour per day, three days or more per week, compared to the number of ALE students, residing inside the district, that did not physically attend the school for more than one hour per day, three days or more per week.

Any school district requesting the above alternative calculation must do so on an OSPI school facilities and organization alternative calculation for alternative learning students form on or before December 31st of that year. For purposes of this section (ALE) students shall be defined as in RCW 28A.150.325.

## WSR 12-16-077

### PROPOSED RULES

#### DEPARTMENT OF AGRICULTURE

[Filed July 31, 2012, 11:54 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-11-119.

Title of Rule and Other Identifying Information: The Washington state department of agriculture fruit and vegetable inspection program inspection fees and other charges.

Hearing Location(s): Wenatchee Inspection Office, 270 9th Street, East Wenatchee, WA 98802, on September 4, 2012, at 1:00 p.m.; and at the Yakima Inspection Office, 21 North 1st Avenue, Yakima, WA 98902, on September 5, 2012, at 10:00 a.m.

Date of Intended Adoption: September 12, 2012.

Submit Written Comments to: Teresa Norman, P.O. Box 42560, Olympia, WA 98504, e-mail WSDARulesComments@agr.wa.gov, fax (360) 902-2085, by 5 p.m., August 23, 2012.

Assistance for Persons with Disabilities: Contact WSDA agency receptionist by calling TTY 1-800-833-6388 or 711.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Amend chapter 16-390 WAC to increase the fruit and vegetable inspection

program hourly and overtime inspection fee. These hourly rate increases are necessary to recover the department's actual costs of providing inspection services. Currently, hourly inspection rates are below the costs of providing services.

Reasons Supporting Proposal: The purpose of this rule is to recover the costs of providing inspection service[s] by increasing the hourly inspection rates (regular and overtime). The increased inspection rate will reduce the proportionate disparity of inspection costs between high volume shippers and the lower volume shippers. High volume shippers are generally assessed fees on a per unit basis which usually meets or exceeds the hourly rate for the total inspection time. The lower volume shippers are assessed fees on a per unit basis in addition to the hourly rate to compensate for the total inspection time.

Statutory Authority for Adoption: RCW 15.17.050 and chapter 34.05 RCW; 3ESHB 2127, chapter 7, Laws of 2012.

Statute Being Implemented: Chapter 15.17 RCW, Standards of grades and packs.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Washington state department of agriculture fruit and vegetable inspection program, governmental.

Name of Agency Personnel Responsible for Drafting: Karen Cozzetto, Yakima, Washington, (509) 249-6906; Implementation and Enforcement: Ken Shank, Olympia, Washington and Wenatchee, Washington, (360) 902-1945 and (509) 665-4318.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

#### Small Business Economic Impact Statement

**SUMMARY OF PROPOSED RULES:** The Washington state department of agriculture fruit and vegetable inspection program is proposing to amend chapter 16-390 WAC. The purpose of this chapter is to establish a schedule of fees for services provided by the fruit and vegetable inspection program. The fees established in this chapter are to be set at a level to ensure cost recovery for the individual service rendered.

The proposed amendments to this chapter include:

- Increase platform inspection fees for services rendered by the fruit and vegetable inspection program from \$32.00 per hour regular time, \$42.00 per hour overtime to \$50.00 per hour regular time, \$75.00 per hour overtime.

**SMALL BUSINESS ECONOMIC IMPACT STATEMENT:** Chapter 19.85 RCW, the Regulatory Fairness Act, requires an analysis of the economic impact proposed rules will have on regulated small businesses. Preparation of a small business economic impact statement is required when proposed rules will impose more than minor costs for compliance or have the potential of placing an economic impact on small businesses that is disproportionate to the impact on large businesses. "Minor cost" means a cost that is less than three-tenths of one percent of annual revenue or income, or one hundred dollars, whichever is greater, or one percent of annual payroll. "Small business" means any business entity

that is owned and operated independently from all other businesses and has fifty or fewer employees.

**INDUSTRY ANALYSIS:** The proposed rule impacts low volume shippers that are assessed fees by the hour. The department has analyzed the proposed rule amendments and has determined that costs are not more than minor on regulated businesses.

**INVOLVEMENT OF SMALL BUSINESSES:** Small businesses have been involved in writing the proposed rules and in providing the department with the expected costs associated with the fee changes.

Meetings have been conducted with the fruit and vegetable inspection program's advisory board members and at the annual fruit and vegetable advisory board meeting to provide the members of the fruit and vegetable inspection advisory board the opportunity to participate in the process and develop the appropriate amount of the needed increase in the hourly fees. Additional industry interaction included the fruit and vegetable management team talking individually with key members of the fruit and vegetable industry throughout the state.

A small business economic impact assessment survey was mailed to three hundred forty-seven fruit and vegetable businesses to analyze the economic impact of proposed rules on small businesses.

**COST OF COMPLIANCE:** RCW 19.85.040 directs agencies to analyze the costs of compliance for businesses required to comply with the proposed rule, including costs of equipment, supplies, labor, professional services, and increased administrative costs. Agencies must also consider whether compliance with the rule will result in loss of sales or revenue. RCW 19.85.040 directs agencies to determine whether the proposed rule will have a disproportionate cost impact on small businesses by comparing the cost of compliance for small business with the cost of compliance for ten percent of the largest businesses required to comply with the proposed rules. Agencies are to use one or more of the following as a basis for comparing costs:

- Cost per employee;
- Cost per hour of labor; or
- Cost per one hundred dollars of sales.

The program has opted to look at cost per one hundred dollars of sales as a basis for comparing costs.

**ANALYSIS OF COST OF COMPLIANCE:** The program analyzed the cost of compliance anticipated by regulated businesses. Fifty-seven small businesses and thirty-nine large businesses returned the small business economic impact survey. Thirty-seven percent of the small businesses surveyed indicated the fees would have an impact on cost of compliance.

The following questions were asked to businesses that may have an impact from an increase in hourly fees for requested inspections.

1. How many employees does your business employ on a full-time year-round basis?
2. Will the business need to create jobs if the hourly rates increase from \$32 regular time and \$42 overtime to \$50 regular time and \$75 overtime? If yes, how many?

3. Will the business need to eliminate jobs to comply with the hourly inspection rate increases? If yes, how many?

4. Will the increase in hourly inspection rates cause the business to lose sales or revenue? If yes, how much revenue will be lost?

5. Will your business incur additional costs to comply with an increase in the hourly inspection rates? Compliance costs to be considered are equipment, supplies, labor, increased administration costs, new or professional services. If yes, how much do you estimate the additional compliances [compliance] costs to be per \$100 of sales?

The following answers were received from businesses that may have an impact from an increase in hourly fees for requested inspections.

1. Zero - fifty employees.
2. The analysis of the data indicated overwhelmingly, ninety-three percent, that no jobs will be created.

3. Seventy-two percent of the small businesses indicated that no jobs would be lost. However, when asked how many jobs might be lost, twenty-six percent of the respondents indicated that one to two jobs would be lost across the board.

4. The survey was pretty much split in two concerning the loss of sales or revenue with fifty-three percent of the respondents stating there will be no loss of sales or revenue and forty-seven percent stating yes they will lose sales or revenue.

5. In regard to compliance costs the survey indicated that fifty-eight percent of the small businesses will not incur compliance costs to comply with this rule. The survey indicated that thirty-seven percent of the businesses would incur additional compliance costs due to an increase in hourly fees. However, when asked to quantify the loss in compliance costs per \$100 in sales the respondents ranged from minimal to one response of \$500,000. Most responded and indicated that there would be a minor decrease in profit.

**ANALYSIS OF DISPROPORTIONATE ECONOMIC IMPACT:** When costs associated with proposed rules are more than minor, the Regulatory Fairness Act requires a comparison of the costs to small businesses with those of ten percent of the largest businesses in the regulated industry. An analysis has shown that the costs small businesses will incur to comply with the proposed rules are not more than minor and are not disproportionate between small and large business entities.

**JOBS CREATED OR LOST:** Under RCW 19.85.040, agencies must provide an estimate of the number of jobs that will be created or lost as the result of compliance with the proposed rules. In collecting information from representative small businesses through a survey, fourteen of fifty-seven small businesses estimate loss of one to two jobs per company as a result of complying with the proposed rules. The remaining forty-three companies indicated no loss of jobs is anticipated.

**CONCLUSION:** To comply with chapter 19.85 RCW, the Regulatory Fairness Act, the fruit and vegetable inspection program has analyzed the economic impact of the proposed rules on small businesses and has concluded that the costs are more than minor and there is no disproportionate impact between small and large businesses.

Please contact Ken Shank if you have any questions at kshank@agr.wa.gov or by calling (360) 902-1945 or (509) 665-4318.

A copy of the statement may be obtained by contacting Ken Shank, P.O. Box 42560, Olympia, WA 98504-2560, 270 9th Street N.E., Suite 101-A, East Wenatchee, WA 98802, phone (360) 902-1945 or (509) 665-4318, fax (360) 902-2085 or (509) 663-3030, e-mail kshank@agr.wa.gov.

A cost-benefit analysis is not required under RCW 34.05.328. The Washington state department of agriculture is not a listed agency in RCW 34.05.328 (5)(a)(i).

July 31, 2012

Brad J. Avy  
Assistant Director

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-005** (~~What~~) **Definitions** (~~are important to this chapter?~~). "Certification" means the issuance of an official document confirming the inspection results for grade, classification, condition, and the absence or presence of plant pests or diseases and/or other defects.

"Customer assisted inspection program (CAIP)" means a quality and/or condition inspection performed by industry with verification and oversight by WSDA.

"Department" means the Washington state department of agriculture (WSDA).

"Director" means the director of the department or the director's designated representative.

"Grade and condition certificate" means a document issued by the director of a certification confirming the results of an inspection.

"Inspection" means a review or examination of fruits and vegetables in order to determine quality, condition, and/or presence or absence of pests or diseases and/or other defects.

"Platform inspection" means any inspection and/or certification performed on a lot that has no defined per unit charges for the service.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-010** (~~How many WSDA~~) **Fruit and vegetable inspection districts** (~~are there?~~). The department has two fruit and vegetable inspection districts, which are:

(1) Fruit and vegetable inspection district two, which consists of Kittitas, Klickitat, Skamania, Yakima, Pacific, Lewis, Wahkiakum, Cowlitz, Clark, Benton, Franklin, Walla Walla, Columbia, Asotin, Whitman and Garfield counties; and

(2) Fruit and vegetable inspection district four, which consists of Grays Harbor, Jefferson, Clallam, Island, Mason, Kitsap, Pierce, Thurston, King, Snohomish, Skagit, Grant, Adams, Ferry, Pend Oreille, Stevens, Spokane, Lincoln, San Juan, Whatcom, Chelan, Douglas and Okanogan counties.

AMENDATORY SECTION (Amending WSR 05-12-054, filed 5/26/05, effective 6/26/05)

**WAC 16-390-020** (~~What are the fees for~~) **Grade and condition certificates** (~~for fruit?~~)—**Fruits**. WSDA fees for grade and condition certificates for all fruits are:

(1) A minimum charge of (~~sixteen~~) twenty-five dollars.

(2) The fees for **federal-state or state grade and condition certificates** of all fresh market apples, pears, and soft fruits in containers (wrapped, place pack, face and fill), bags, master containers, consumer packages, or loose in bulk cartons, boxes, crates, bins, or bags are listed in the following table:

Type of Fruit	Fees per CWT or Fraction Thereof
Apples on-line for domestic shipping, CA, etc.	\$0.17
Apples for export	\$0.17
Apricots, cherries, nectarines, peaches, plums, prunes, other soft fruits, grapes and berries	\$0.23
Pears	\$0.17
Pears for export	\$0.17

(3) The department will give a volume discount for apples and pears that are inspected and certified on-line for domestic shipment, controlled atmosphere certification, etc. Packing of up to 4800 cwt per eight-hour shift, the normal inspection fee will be assessed, and every cwt of product above 4800 cwt for that same shift will be charged at \$0.12 cwt. Platform inspection fees will still apply (WAC 16-390-200).

(4) The department charges a fee of three dollars per ton net weight (or fraction thereof) for all apples, pears, stone fruits, berries, and grapes in bulk or in containers that are inspected for processing.

(5) The department charges a fee of (~~thirty-two~~) fifty dollars per hour, with a minimum certificate charge of (~~sixteen~~) twenty-five dollars, when an inspection is requested only to verify the product, conveyance, markings, or other factors not related to quality.

AMENDATORY SECTION (Amending WSR 05-12-054, filed 5/26/05, effective 6/26/05)

**WAC 16-390-030** (~~What are the fees for~~) **Grade and condition certificates** (~~for~~)—**Vegetables**(~~?~~). WSDA fees for grade and condition certificates for all vegetables are:

(1) A minimum charge of (~~sixteen~~) twenty-five dollars.

(2) The fees for **federal-state or state grade and condition certificates** for all fresh market vegetables in containers (wrapped, place pack, face and fill), bags, master containers, consumer packages, or loose in bulk cartons, boxes, crates, bins, or bags are listed in the following table:

Type of Vegetables	Fees per CWT or Fraction Thereof
Asparagus	\$0.23

Type of Vegetables	Fees per CWT or Fraction Thereof
Cantaloupes and corn	\$0.14
Onions	\$0.09
Potatoes	\$0.07
In-state processing potatoes Complete inspection	\$0.08 Rate shall be reduced for the level of service required
Tomatoes	\$0.21

(3) For the inspection of vegetables not listed, the department charges a fee of ~~((thirty-two))~~ fifty dollars per hour.

(4) The department charges a fee of three dollars per ton net weight (or fraction thereof) for the inspection of vegetables to be processed, whether in bulk or in containers.

(5) When an inspection is requested only to verify the product, conveyance, markings, or other factors not related to quality, the department charges the rate of ~~((thirty-two))~~ fifty dollars per hour, with a minimum certificate charge of ~~((sixteen))~~ twenty-five dollars.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-040** ~~((What are the fees for grade and condition certificates for fruits and vegetables inspected under the))~~ Customer assisted inspection program (CAIP)((?) certification charges—Fruits and vegetables. WSDA fees for grade and condition certificates for all fruits and vegetables issued under the customer assisted inspection program (CAIP) are:

(1) A minimum charge of ~~((sixteen))~~ twenty-five dollars.

(2) The fees for **federal-state grade and condition certificates** for all fresh market fruits and vegetables in containers (wrapped, place pack, face and fill), bags, master containers, consumer packages, or loose in bulk cartons, boxes, crates, bins, or bags are:

Type of Fruit or Vegetable	Fees per CWT or Fraction Thereof
Fresh potatoes	Three and one-half cents per cwt., with a minimum charge of <del>((thirty-two))</del> <u>fifty</u> dollars per hour for each staff hour worked.
All other fresh market fruits and vegetables	Three-fourths of the cwt. rates specified in WAC 16-390-020(2) and 16-390-030(2) but not less than the equivalent rate of <del>((thirty-two))</del> <u>fifty</u> dollars per staff hour worked. If the cwt. rate results in an inspection fee that is less than the equivalent of <del>((thirty-two))</del> <u>fifty</u> dollars per staff hour

Type of Fruit or Vegetable	Fees per CWT or Fraction Thereof
	worked, the department will assess additional certification charges. For example, if an inspection takes three staff hours <del>\$(96.00)</del> <u>150.00</u> to complete and the cwt. rate results in a fee of \$85.00, the department will assess additional certification charges of <del>\$(41.00)</del> <u>65.00</u> .

AMENDATORY SECTION (Amending WSR 08-22-084, filed 11/4/08, effective 12/5/08)

**WAC 16-390-060** ~~((Fees for inspecting beans, peas, lentils, hay and straw.))~~ Certificate charges—Other agricultural commodities. Inspection fees for beans, peas, lentils, hay, and straw are found in the following rule sections:

Beans, Peas, Lentils	
WAC Section	Title
16-240-010	Definitions.
16-240-020	Washington state grain and commodity service points.
16-240-030	Commodities covered by chapter 22.09 RCW.
16-240-032	Grades and standards adopted by Washington state.
16-240-034	Service requests.
16-240-036	Permanent staffing requests.
16-240-038	Revenue minimum.
16-240-040	Official commercial inspection services.
16-240-042	Payment of fees and charges.
16-240-044	GIPSA, FGIS scale authorization.
16-240-046	Straight time rate.
16-240-048	Rates for working outside established business hours (overtime).
16-240-050	Calculating travel time, mileage and per diem.
16-240-052	Fees for stowage examination.
16-240-054	Service cancellation fee.
16-240-060	WSDA grain program fees for service.
16-240-080	Fees for services under the Agricultural Marketing Act of 1946.
16-240-090	Fees for other services performed by WSDA.

Hay, Straw	
WAC Section	Title
16-470-900	Schedule of fees and charges—Billing policies and procedures.
16-470-912	Schedule of fees and charges—Applicable fees and charges.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-100** (~~What are the fees for~~) **Fruit and vegetable** (~~certificates~~) **certificate fees.** As shown in the following table, WSDA certificate fees vary with the type of certificate requested:

Type of Certificate Requested	Fee
Consolidation certificates	Fees are specified in WAC 16-390-020 and 16-390-030 with an added charge of three dollars for each additional lot.
Condition certificates for previously inspected lots	Fee is two-thirds of the fee charged for grade and condition certificates, with a minimum charge of ( <del>sixteen</del> ) <u>twenty-five</u> dollars.
Condition certificates for lots not previously inspected for quality or grade with a request that the certificate carry out-bound car, truck, or state lot number	Fees are based upon the applicable grade and condition certificate schedules.
Out-of-state products reported on state certificates	Fees are based either upon the applicable grade and condition certificate schedule or a charge of ( <del>thirty-two</del> ) <u>fifty</u> dollars per hour whichever is greater.
A state condition certificate or quality control inspection for previously certified controlled atmosphere storage apple lots	A state condition certificate or quality control inspection may be issued without additional charge.
Sanitary and quarantine certificates for fruits and vegetables	( <del>Sixteen</del> ) <u>Twenty-five</u> dollars for issuing a certificate, plus the hourly rates specified in WAC 16-390-200(1) when the shipment is not covered by federal-state or state certificates.
Container weight, or check loading certificates	Fee is charged at the rates specified in WAC 16-390-200(1).

AMENDATORY SECTION (Amending WSR 05-12-054, filed 5/26/05, effective 6/26/05)

**WAC 16-390-150** (~~What requirements apply to~~) **Shipping permits and certificate(s) of compliance** (~~for~~)—**Fruits and vegetables**(~~?~~). (1) Each shipment of apples, apricots, Italian prunes, peaches, pears, dark sweet cherries, Rainier cherries and asparagus must be covered by a shipping permit. All other sweet cherries, whether certified or not, must have a shipping permit indicating freedom from cherry fruit fly larvae.

(2) Shipments of apricots, cherries, peaches, prunes, and asparagus to processors do not require a shipping permit.

(3) A permit or certificate of compliance may be issued without additional charge if the lot is certified.

(4) If the lot has not been certified, a permit or certificate of compliance may be issued based upon the following charges:

(a) The minimum charge for a permit or certificate of compliance is three dollars.

(b) Two-thirds of the rate for federal-state or state grade and condition certificates applies.

(c) A permit to ship apples and/or pears to a by-product plant outside the state is three dollars.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-200** (~~What are the fees for~~) **Platform inspection** (~~services~~) **fees.** (1) Fees for platform inspections, taking samples, extra time, phytosanitary and/or quarantine inspection, and all other platform services are charged at the rate of (~~thirty-two~~) fifty dollars per hour.

(2) When a platform inspector is working full time at one house and is also doing certification inspections, the inspector must allow credit, according to the limits outlined in the schedule for such inspections, for the time spent on the inspection at the rate of (~~thirty-two~~) fifty dollars per hour.

(a) Platform fees will not be assessed if the certificate cwt. fee divided by the respective hourly rates is equal to or exceeds the number of hours worked.

(b) Platform fees will be assessed if the certificate cwt. fee divided by the respective hourly rates is less than the number of hours worked. The amount assessed will be sufficient to make the total fee equal to the number of hours worked multiplied by the (~~thirty-two~~) fifty dollars per hour rate.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-210** (~~What is the fee for supervising fumigations~~) **Fumigation fees.** (1) The minimum fee for supervising fumigation shall be equivalent to one and one-half hours specified in WAC 16-390-200(1) for the master fumigation certificate. Additional certificates issued from this master certificate will cost (~~sixteen~~) twenty-five dollars each.

(2) The department will charge for any additional stand-by time at the rate specified in WAC 16-390-200(1).

(3) In facilities that are either temporary or without adequate devices for maintaining acceptable treatment temperatures, fumigations must not start after:

- (a) 3:00 p.m. from October 1 to May 31; or
- (b) 10:00 p.m. from June 1 to September 30.

AMENDATORY SECTION (Amending WSR 05-12-054, filed 5/26/05, effective 6/26/05)

**WAC 16-390-220** (~~What is the fee for a~~) **Field or orchard inspection**(?) **fees**. The fee for field or orchard inspections made at the applicant's request to determine the presence or absence of disease or insect infestation, or for some other reason is:

- (1) Three dollars per acre or fraction thereof; or
- (2) At the platform inspection rate specified in WAC 16-390-200(1).

AMENDATORY SECTION (Amending WSR 08-21-068, filed 10/13/08, effective 11/13/08)

**WAC 16-390-230** (~~What is the fee for an~~) **Apple pest certification**(?) **fees**. The fee for apple pest certification, using the survey method, on all fresh apples produced in Washington state or marketed under Washington state grades and standards, is \$.015 per cwt. or fraction thereof.

AMENDATORY SECTION (Amending WSR 07-16-084, filed 7/30/07, effective 8/30/07)

**WAC 16-390-240** (~~What is the~~) **Fresh produce audit verification program**(?)<sub>2</sub>. The fresh produce audit verification program is a federal-state inspection service program that reviews and verifies a participating company's facility and agronomic practices, along with its documented procedures, to help determine if "good agricultural practices" and "good handling practices" are maintained.

AMENDATORY SECTION (Amending WSR 07-16-084, filed 7/30/07, effective 8/30/07)

**WAC 16-390-242** (~~What charges does the department assess for fruit and vegetable audit verification certificates issued under the~~) **Fresh produce audit verification program**(?) **fees for fruit and vegetable audit verification certificates**. Charges assessed by the department for good agricultural practices (GAP) and good handling practices (GHP) audit verification certificates issued under the fresh produce audit verification program are as follows:

- (1) The hourly rate for audit time, administration time and applicable travel time is seventy-five dollars per audit hour.
- (2) Mileage related to GAP and GHP audit services is charged at the rate established by the office of financial management (OFM) at the time the service was performed.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-245** (~~What requirements apply to certifications using~~) **USDA positive lot identification**(?)

**fees**. (1) Certification fees using USDA positive lot identification are based upon the rates specified in WAC 16-390-020, 16-390-030, 16-390-040, 16-390-100, 16-390-200, 16-390-210, 16-390-250 and 16-390-260.

(2) The department may add an additional charge of ten percent if an inspector is required to be on-site when no other inspections are requested.

(3) The department responds to requests for positive lot identification services in the following order:

(a) First priority is given to those situations where positive lot identification is a mandatory condition of a sales transaction.

(b) All other requests will be honored based upon adequate notice to the inspection service and the availability of inspectors.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-250** (~~What~~) **Miscellaneous** (~~inspection~~) **and certification fees** (~~does USDA charge?~~)<sub>2</sub>. (1) Department services provided to other agencies, commissions, and organizations are charged at the rate of (~~thirty-two~~) fifty dollars per hour.

(2) The charge for mileage related to inspection and certification services is at the rate established by the office of financial management (OFM) at the time the service was performed.

(3) The department may charge for telegrams, facsimile, or electronic transmission of inspection documents at the rate of four dollars per transmission in addition to any Western Union charges made directly to the applicant.

(4) The cost of extra copies of original documents is four dollars per set.

(5) The department may charge twenty-five cents per copy for Xerox copies of inspectors' notes, certificates or related documents.

(6) When, through no fault of the inspection service, it is necessary to retype or reissue a document, the cost of retyping or reissuing the document is four dollars per set.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-260** (~~Does the department assess~~) **Extra** (~~charges~~) **fees for** (~~the~~) **inspection and certification services** (~~it provides?~~)<sub>2</sub>. The department does assess extra charges on services provided according to the following:

(1) The minimum inspection charge for each commodity and requested document is (~~sixteen~~) twenty-five dollars.

(2) If, through no fault of the inspection service, excess time is required over the maximum time allowed (as supported by unit rates for each commodity and requested document) the excess time is charged at the rate of (~~thirty-two~~) fifty dollars per hour.

(3)(a) For all inspection services performed beyond a regularly scheduled eight-hour week day shift or on Saturdays, or Sundays, or state legal holidays, a rate equivalent to (~~forty-two~~) seventy-five dollars will be charged for actual hours spent in performance of duties. Such charges include

unit charges, plus, if necessary, overtime charges to equal the respective overtime hourly rates.

(b) The following are state legal holidays:

Holiday	Date
New Year's Day	January 1
Martin Luther King, Jr. Day	Third Monday in January
Presidents' Day	Third Monday in February
Memorial Day	Last Monday of May
Independence Day	July 4
Labor Day	First Monday in September
Veteran's Day	November 11
Thanksgiving Day	Fourth Thursday in November
Day following Thanksgiving Day	Fourth Friday in November
Christmas Day	December 25

(4) Additional hourly or overtime charges will not be assessed when the per unit inspection charge in any one day equals or exceeds the basic hourly and/or overtime charge.

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-270 ((Can the department waive) Fruit and vegetable ((inspection)) fees((?)).** The department may waive inspection fees for fruits and vegetables donated to bona fide nonprofit organizations if the shipping containers are conspicuously labeled or marked "not for resale."

AMENDATORY SECTION (Amending WSR 04-11-078, filed 5/18/04, effective 6/18/04)

**WAC 16-390-280 ((What requirements apply to the) Payment and collection of fruit and vegetable fees and charges((?)).** (1) All fees and charges for services rendered are due within thirty days after the date of the billing statement you receive from the department.

(2) If your payment is not received within thirty days, service may be withheld until your delinquent account is paid.

(3) If your account is delinquent, the department may require that you pay cash for subsequent services.

(4) The department assesses a penalty of eighteen percent per annum on all delinquent account balances.

**WSR 12-16-078  
PROPOSED RULES  
DEPARTMENT OF AGRICULTURE**

[Filed July 31, 2012, 11:58 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-11-120.

Title of Rule and Other Identifying Information: Chapter 16-303 WAC, Seed assessment, fees for seed services and seed certification.

Hearing Location(s): WSDA Building, Room 238, 21 North First Avenue, Yakima, WA 98902, on September 5, 2012, at 2:30 p.m.

Date of Intended Adoption: September 17, 2012.

Submit Written Comments to: Teresa Norman, P.O. Box 42560, Olympia, WA 98504, e-mail WSDARulesComments@agr.wa.gov, fax (360) 902-2043, by 5 p.m. September 5, 2012.

Assistance for Persons with Disabilities: Contact the agency receptionist by calling TTY 1-800-833-6388 or 711.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules will ensure that the fees being charged for services provided by the seed program are in correlation to the amount of time needed to render that service and ensure full recovery of costs incurred by the program.

Reasons Supporting Proposal: Fees for seed program services have not been increased since 2003. Since that time operational costs have increased dramatically. It is necessary to increase fees to cover these increased operational costs. Therefore, during the 2012 legislative session, the Washington state legislature authorized (as required by Initiative 960) the Washington state department of agriculture to increase the seed program fees as necessary to meet the actual costs of conducting business (see chapter 7, Laws of 2012).

Statutory Authority for Adoption: RCW 15.49.310; chapter 34.05 RCW; 3ESHB 2127, chapter 7, Laws of 2012.

Statute Being Implemented: Chapter 15.49 RCW, Seeds.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Washington state department of agriculture, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Victor Shaul, Program Manager, Yakima, (509) 249-6950.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

Small Business Economic Impact Statement

**SUMMARY OF PROPOSED RULES:** The Washington state department of agriculture seed program is proposing to amend chapter 16-303 WAC, Seed assessment, fees for seed services and seed certification. The purpose of this chapter is to establish a schedule of fees for services provided by the seed program. The fees established in this chapter are to be set at a level to ensure cost recovery for the individual service rendered.

The proposed amendments to this chapter include:

- Increase fees for services rendered by the seed program by 7.5 percent.

**SMALL BUSINESS ECONOMIC IMPACT STATEMENT:** Chapter 19.85 RCW, the Regulatory Fairness Act, requires an analysis of the economic impact proposed rules will have on regulated small businesses. Preparation of a small business economic impact statement is required when proposed



rules will impose more than minor costs for compliance or have the potential of placing an economic impact on small businesses that is disproportionate to the impact on large businesses. "Minor cost" means a cost that is less than three-tenths of one percent of annual revenue or income, or one hundred dollars, whichever is greater, or one percent of annual payroll. "Small business" means any business entity that is owned and operated independently from all other businesses and has fifty or fewer employees.

**INDUSTRY ANALYSIS:** The seed program is responsible for seed laboratory testing, seed certification and phytosanitary inspection for the export of seed. The program has determined it regulates sixty-nine existing small businesses that fall under the North American Industry Classification System codes corresponding to the regulated industry: 115114 Seed Conditioners.

**INVOLVEMENT OF SMALL BUSINESSES:** Small businesses have been involved in writing the proposed rules and in providing the department with the expected costs associated with the fee changes.

Meetings have been conducted with the Washington North Idaho Seed Association and the Washington State Crop Improvement Association to provide the members of the Washington seed industry the opportunity to participate in the process and develop the appropriate amount of the needed increase in fees. Additional industry interaction includes presentations at the Washington alfalfa seed commission, the Columbia Basin Vegetable Seed Association, as well as numerous individual meetings with seed company owners and managers.

A small business economic impact assessment survey was mailed to sixty-six seed conditioning businesses to analyze the economic impact of proposed rules on small businesses.

**COST OF COMPLIANCE:** RCW 19.85.040 directs agencies to analyze the costs of compliance for businesses required to comply with the proposed rule, including costs of equipment, supplies, labor, professional services, and increased administrative costs. Agencies must also consider whether compliance with the rule will result in loss of sales or revenue. RCW 19.85.040 directs agencies to determine whether the proposed rule will have a disproportionate cost impact on small businesses by comparing the cost of compliance for small business with the cost of compliance for the ten percent of the largest businesses required to comply with the proposed rules. Agencies are to use one or more of the following as a basis for comparing costs:

- Cost per employee;
- Cost per hour of labor; or
- Cost per one hundred dollars of sales.

The program has opted to look at cost per one hundred dollars of sales as a basis for comparing costs.

*Analysis of Cost of Compliance:* The program analyzed the cost of compliance anticipated by regulated small businesses. Seventeen small businesses and zero large businesses returned the small business economic impact survey. Eleven percent of the small businesses surveyed indicated the fees would have an impact.

The following questions were asked to businesses that may have an impact from an increase in fees for requested inspections.

- How many employees does your business employ on a full-time year-round basis?
- Will jobs be created or lost? If yes, how many jobs?
- Will the business incur compliance costs? If yes, cost per \$100 of sales?
- Will the business lose [lose] revenue or sales? If yes, loss per \$100 of sales?

The analysis of the data indicated that no jobs will be created. As for jobs lost, eleven percent of the small businesses indicated that jobs would be lost, however when asked how many jobs might be lost the survey indicated that one job may be lost across all respondents.

In regard to compliance costs the survey indicated that businesses will not incur compliance costs to comply with this rule.

The survey indicated that forty-seven percent of the businesses would incur a loss in revenue due to an increase in fees. However, when asked to quantify the loss in revenue per \$100 in sales only two responded and indicated that there would be a minor decrease in profit.

*Analysis of Disproportionate Economic Impact:* When costs associated with proposed rules are more than minor, the Regulatory Fairness Act requires a comparison of the costs to small businesses with those of ten percent of the largest businesses in the regulated industry. An analysis has shown that the costs small businesses will incur to comply with the proposed rules are not more than minor and are not disproportionate between small and large business entities.

**JOBS CREATED OR LOST:** Under RCW 19.85.040, agencies must provide an estimate of the number of jobs that will be created or lost as the result of compliance with the proposed rules. In collecting information from representative small businesses through a survey, the program estimates that one job may be lost as a result of small businesses complying with the proposed rules.

**CONCLUSION:** To comply with chapter 19.85 RCW, the Regulatory Fairness Act, the seed program has analyzed the economic impact of the proposed rules on small businesses and has concluded that the costs are not more than minor and there is no disproportionate impact between small and large businesses.

Please contact Victor Shaul if you have any questions at [Vshaul@agr.wa.gov](mailto:Vshaul@agr.wa.gov) or by calling (509) 249-6950.

A copy of the statement may be obtained by contacting Victor Shaul, 21 North First Avenue, Yakima, WA 98902, phone (509) 249-6950, fax (509) 454-4395, e-mail [Vshaul@agr.wa.gov](mailto:Vshaul@agr.wa.gov).

A cost-benefit analysis is not required under RCW 34.05.328. The Washington state department of agriculture is not a listed agency in RCW 34.05.328 (5)(a)(i).

July 31, 2012

Brad J. Avy  
Assistant Director

AMENDATORY SECTION (Amending WSR 05-12-053, filed 5/26/05, effective 6/26/05)

**WAC 16-303-020 Schedule of charges—Billing policies and procedures.** (1) Accounts.

(a) All billable services provided for under chapter 15.49 RCW are due and payable upon billing by the department. For the convenience of established accounts and in accord with good business practices, the department provides a monthly billing service. Accounts not paid in full within thirty days of billing are considered delinquent.

(b) On all debts due and payable after July 28, 1991, all delinquent accounts are assessed a late charge equal to ~~((one and one-half))~~ two percent per month, or portion of a month, on the unpaid balance.

(c) Except for established accounts where there is a reasonable expectation of additional charges during a calendar month, the minimum billable amount through the monthly billing system is twenty dollars. All billable services of less than twenty dollars are due and payable on the date that service is rendered.

(d) No person with an account ninety days or more in arrears may receive service except on the basis of payment in full at the time service is rendered. Accounts in arrears may be subject to legal action for collection and are not restored to monthly billing status until all past due amounts are paid-in-full.

(e) Accounts that become ninety or more days in arrears twice within a five-year period may be subject to a permanent requirement for payment in full at the time service is provided.

(2) Unless otherwise provided for in rule, requests for refund fees or assessments must be submitted to the department by June 30 of the year following payment of the fee or assessment.

(3) Fees for services not listed in rule are set on the basis of the actual cost to the department of agriculture, or the most appropriate fee established by rule.

AMENDATORY SECTION (Amending WSR 01-01-015, filed 12/6/00, effective 1/6/01)

**WAC 16-303-105 Annual seed inspection charge.** (1)

Each person required to obtain a seed labeling permit, pursuant to RCW 15.49.400, of the Washington State Seed Act, must also, pursuant to RCW 15.49.310 and 15.49.370, pay a general seed inspection charge annually to the department in the amount of ~~((ten))~~ eleven cents per one hundred dollars gross annual dollar sales in excess of ten thousand dollars of agricultural and/or vegetable seed distributed in this state during the preceding fiscal year, except that no assessment shall be collected on:

(a) Seed for which the assessment has been previously collected, except when such seed is relabeled;

(b) Agricultural or vegetable seed distributed out-of-state;

(c) Seed distributed in containers of four ounces or less;

(d) Stock seed; and

(e) Seed distributed by governmental agencies, such as, but not limited to, the United States Department of Agriculture national foundation seed project. Agricultural and/or vegetable seeds distributed under bailment contract are valued at the producer-conditioner agreement rate in lieu of sale.

(2) The seed assessment fees for the fiscal period beginning July 1 through June 30 are payable on February 1 of the following calendar year.

(3) The seed assessment may accompany the annual application for the seed labeling permit. A penalty of ~~((ten))~~ fifteen percent of the assessment fee or a minimum of ~~((ten))~~ twenty dollars, whichever is greater, is added to all assessments not paid by February 1.

(4) The annual seed-labeling permit may not be issued until all seed assessments and penalties are satisfied.

AMENDATORY SECTION (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-200 Seed program testing fees.** Seed testing fees are as follows:

(1)

Category	Crop kind	PURITY	GERM/1	TZ	Additional Crops in each Category/2
1	Agricultural Grasses	<del>((37.00))</del> <u>40.00</u>	<del>((22.60))</del> <u>25.00</u>	<del>((41.83))</del> <u>45.00</u>	Alkaligrass, Bermudagrass, Canarygrass, Foxtail, Switchgrass, Timothy, Zoysia
2	Alfalfa & Clover	<del>((28.78))</del> <u>31.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	Alfalfa, Black Medic, Clover, Lupine, Milkvetch, Sainfoin, Trefoil
3	Beans	<del>((26.72))</del> <u>29.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	Beans
4	Beets	<del>((39.06))</del> <u>42.00</u>	<del>((43.16))</del> <u>47.00</u>	<del>((41.83))</del> <u>45.00</u>	Beets, Swiss chard, Spinach
5	Bentgrass, redtop	<del>((65.78))</del> <u>72.00</u>	<del>((34.94))</del> <u>38.00</u>	<del>((41.83))</del> <u>45.00</u>	Bentgrass, Redtop
6	Bluegrass	<del>((45.22))</del> <u>49.00</u>	<del>((30.82))</del> <u>33.00</u>	<del>((41.83))</del> <u>45.00</u>	Bluegrass, all types

Category	Crop kind	PURITY	GERM/1	TZ	Additional Crops in each Category/2
7	Brassica Species	<del>((69.88))</del> <u>75.00</u>	<del>((34.94))</del> <u>38.00</u>	<del>((41.83))</del> <u>45.00</u>	Brassica Species
8	Brome	<del>((47.28))</del> <u>51.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	<b>Brome:</b> Mountain, Smooth, Meadow
9	Fescue	<del>((37.00))</del> <u>40.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	<b>Fescue:</b> Tall and Meadow
10	Fescue, all others	<del>((45.22))</del> <u>49.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	<b>Fescue:</b> Arizona, Blue, Blue Hard, Chewings, Creeping, Hard, Idaho, Red, Sheep
11	Flax	<del>((28.78))</del> <u>31.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	Lewis flax
12	Orchardgrass	<del>((51.38))</del> <u>55.00</u>	<del>((26.72))</del> <u>29.00</u>	<del>((41.83))</del> <u>45.00</u>	Orchardgrass
13	Peas and other large seeded legumes	<del>((28.78))</del> <u>31.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	Peas, Chickpeas, Lentil, Vetch
14	Primrose	<del>((28.78))</del> <u>31.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	Primrose
15	Ryegrass	<del>((45.22))</del> <u>49.00</u>	<del>((22.60))</del> <u>25.00</u>	<del>((41.83))</del> <u>45.00</u>	Ryegrass, (Perennial or Annual)
16	Small burnet	<del>((28.78))</del> <u>31.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	Small burnet
17	Sudangrass	<del>((28.78))</del> <u>31.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	Sudangrass
18	Vegetables	<del>((28.78))</del> <u>31.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((45.00))</del> <u>49.00</u>	<b>Vegetables:</b> Arugula, Asparagus, Cantaloupe, Carrot, Celery, Corn, Coriander, Cucumber, Dill, Eggplant, Endive, Leek, Lettuce, Okra, Onion, Parsley, Parsnip, Pepper, Pumpkin, Radish, Squash, Tomato, Watermelon
19	Grains	<del>((28.78))</del> <u>31.00</u>	<del>((24.66))</del> <u>27.00</u>	<del>((41.83))</del> <u>45.00</u>	Wheat, Triticale, Sunflower, Sorghum, Safflower, Rye, Rice, Millet, Buckwheat, Barley, Oats, Emmer, Spelt
20	Wheatgrass, Wildrye, other native species Group A	<del>((78.12))</del> <u>84.00</u>	<del>((30.82))</del> <u>33.00</u>	<del>((41.83))</del> <u>45.00</u>	Bluestem, Buffalograss, Lovegrass, Penstemon, Sand dropseed, Sideoats, Squirreltail; Intermediate, Pubescent, Tall, Thickspike, Slender, and Western wheatgrasses; Small-seeded wildrye
	Wheatgrass, Wildrye, other native species and flowers Group B	<del>((69.00))</del> <u>75.00</u>	<del>((30.82))</del> <u>33.00</u>	<del>((41.83))</del> <u>45.00</u>	Bitterbrush, Echinacea, Indian ricegrass, Junegrass, Kochia, Oatgrass, Indian ricegrass, Blue and other large-seeded wildrye, Crested and Siberian wheatgrasses
	Wheatgrass, Wildrye, other native species and flowers Group C	<del>((69.00))</del> <u>75.00</u>	<del>((114.48))</del> <u>123.00*</u>	<del>((41.83))</del> <u>45.00</u>	Green needlegrass, Needle & Thread, Penstemon *(Germination requires 400 seed TZ according to AOSA Rules)

/1 Standard 400 seed germination test.

(2) Crops not listed in the above table will be charged by the category that they fit into.

AMENDATORY SECTION (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

WAC 16-303-210 Fees for special seed tests.

Test	Fee	Additional Information
(1) All states noxious weed examination	\$ <del>((33.38))</del> <u>36.00</u>	
<b>(2) Dormant Seed Test</b>	\$ <del>((41.83))</del> <u>45.00</u>	
(a) For crops requiring a 400 seed TZ as required in the AOSA rules	\$ <del>((83.66))</del> <u>90.00</u>	
(b) This fee also applies to paired tests when required by AOSA rules		
(3) Cold (vigor) test for wheat	\$ <del>((65.00))</del> <u>70.00</u>	
<b>(4) Crop or weed exam</b>		Standard noxious amount from AOSA rules
(a) Turf-type and other small seeded grasses	\$ <del>((38.00))</del> <u>41.00</u>	Kentucky bluegrass, timothy, alkaligrass, fine-leaved fescues
(b) Small seeded legumes and medium seeded crops	\$ <del>((44.00))</del> <u>47.00</u>	Brassicas, ryegrass, tall fescue
(c) Wheatgrass and native species	\$ <del>((50.00))</del> <u>54.00</u>	
(d) Grains and large seeded legumes	\$ <del>((22.00))</del> <u>24.00</u>	
(5) Fescue seed ammonia test	\$ <del>((30.82))</del> <u>33.00</u>	Required on all certified Blue, Hard, and Sheep fescues
(6) Fluorescence test (400 seed test)	\$ <del>((26.72))</del> <u>29.00</u>	Required on all Perennial and Annual ryegrass samples
(7) Miscellaneous services, samples requiring extra time, field run samples, etc.	\$ <del>((35.00))</del> <u>40.00/hour</u>	
(8) Pest and disease (phyto exam) and/or soil exam	\$ <del>((34.94))</del> <u>39.00</u>	
(9) Quarantine tests on seed		
Bluegrass and Bentgrass	\$ <del>((18.04))</del> <u>20.00/5 grams</u>	
Other grasses	\$ <del>((18.04))</del> <u>20.00/10 grams</u>	
(10) Rules test—Canadian	PURITY	GERMINATION
Alfalfa, clover, peas, lentils	\$ <del>((32.37))</del> <u>35.00</u>	\$ <del>((24.66))</del> <u>27.00</u>
Kentucky bluegrass	\$ <del>((49.34))</del> <u>53.00</u>	\$ <del>((30.82))</del> <u>33.00</u>
Bentgrass	\$ <del>((72.47))</del> <u>78.00</u>	\$ <del>((34.94))</del> <u>38.00</u>
(11) Rules test—I.S.T.A.	PURITY	GERMINATION
Alfalfa, clover, peas, lentils	\$ <del>((32.37))</del> <u>35.00</u>	\$ <del>((30.82))</del> <u>33.00</u>
Kentucky bluegrass	\$ <del>((49.34))</del> <u>53.00</u>	\$ <del>((30.82))</del> <u>33.00</u>
(12) Moisture test	\$ <del>((30.00))</del> <u>33.00</u>	
(13) Seed Count		
(a) Large seed	\$ <del>((9.25))</del> <u>10.00</u>	
(b) Small seed	\$ <del>((12.30))</del> <u>13.00</u>	
<del>((14)) Out-sourcing charge</del>	\$ <del>15.00</del>	
<del>((15)) (14) Sod seed analysis</del>	Bluegrass \$ <del>((75.00))</del> Fescue <u>81.00</u> Ryegrass \$ <del>((52.00))</del> <u>56.00</u> <u>\$ ((42.00))</u> <u>45.00</u>	
<del>((16)) (15) Sodium Hydroxide test for presence of red and/or white wheat</del>	\$ <del>((20.54))</del> <u>23.00</u>	

Test	Fee	Additional Information
<del>((17))</del> <u>(16)</u> Undesirable grass species test (includes an all states noxious test) examination (UGS test)	\$ <del>((70.37))</del> <u>76.00</u>	
<del>((18))</del> <u>(17)</u> Germination test in soil	\$ <del>((50.00))</del> <u>54.00</u>	
<del>((19))</del> <u>(18)</u> Wheat bioassay test	\$ <del>((50.00))</del> <u>54.00</u>	
<del>((20))</del> <u>(19)</u> Germination on mixtures Germination requiring embryo excision	\$ <del>((35.00))</del> <u>40.00</u> per hour for separation of kinds or preparation time	This is in addition to the established germination fee

**AMENDATORY SECTION** (Amending WSR 07-21-060 and 07-24-082, filed 10/12/07 and 12/5/07, effective 12/1/07 and 1/5/08)

**WAC 16-303-230 Official seed sampling or similar service.** Fees for official sampling are in addition to travel time and mileage.

Crop	Fee	Minimum charge
Peas, beans, small grains or seeds of similar size	Standard sampling \$ <del>((0.07))</del> <u>0.09</u> per cwt.	\$ <del>((35.00))</del> <u>40.00</u>
	I.S.T.A. sampling \$ <del>((0.09))</del> <u>0.11</u> per cwt. plus \$ <del>((7.50))</del> <u>9.00</u> per lot	\$ <del>((35.00))</del> <u>40.00</u> plus \$ <del>((7.50))</del> <u>9.00</u> per lot
For all other kinds	Standard sampling \$ <del>((0.18))</del> <u>0.20</u> per cwt.	\$ <del>((35.00))</del> <u>40.00</u>
	I.S.T.A. sampling \$ <del>((0.22))</del> <u>0.24</u> per cwt. plus \$ <del>((7.50))</del> <u>9.00</u> per lot	\$ <del>((35.00))</del> <u>40.00</u> plus \$ <del>((7.50))</del> <u>9.00</u> per lot

**AMENDATORY SECTION** (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-240 Fees for blending seed.** Blending fee is not applicable to salvage blends.

Grass option B*	Washington origin seed	\$ <del>((1.02))</del> <u>1.10</u> per cwt.
Grass option B*	Out-of-state origin	\$ <del>((0.64))</del> <u>0.66</u> per cwt.
Grass option A and all other blends of other crops		\$ <del>((0.07))</del> <u>0.10</u> per cwt.
*See WAC 16-303-320, footnote 6 for information on option A and option B.		

**AMENDATORY SECTION** (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-250 Miscellaneous charges for seed services.** Fees for miscellaneous department seed services are as follows:

Service	Fee	Additional Information
Rush samples (including phone or FAX report if requested at time sample is submitted)	\$ <del>((15.00))</del> <u>16.00</u>	
High priority sample - Purity result completed before the end of the next business day. (Special circumstances only. Call ahead for availability.)	\$ <del>((150.00))</del> <u>160.00</u>	
<del>((Phone reports on test result, per call</del>	\$ 7.18	
<del>Preliminary report on germination</del>	\$ <del>((5.00))</del>	
Additional mailing of report	\$ <del>((5.12))</del> <u>6.00</u> each destination	
Additional copies of reports	\$ <del>((2.50))</del> <u>3.00</u> minimum fee	
Revised reports	\$ <del>((10.26))</del> <u>11.00</u> minimum (hourly fee when applicable)	
Fee for special shipping and handling service, for example Federal Express, Air Parcel or air freight	\$ <del>((3.70))</del> <u>5.00</u> plus exact shipping cost	
Fee for facsimile transmission of documents	\$ 1.00 per document	
Mileage - <u>A</u> dditional or special requested trips		As established by the Washington State Office of Financial Management
Stand-by time - <u>Or</u> travel time	\$ <del>((35.00))</del> <u>40.00</u> /hour	Travel time to be charged when special trip is requested.

**AMENDATORY SECTION** (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-300 Phytosanitary certification of seed—Fees.**

Service	Fee	Additional Information
Federal Phytosanitary certificate	\$ <del>((35.00))</del> <u>50.00</u>	
State Phytosanitary certificate	\$ <del>((40.00))</del> <u>45.00</u>	

Service	Fee	Additional Information
Field inspection(---)- All seed except wheat seed (for each required inspection)	\$ <del>((5.30))</del> <u>5.83</u> per acre, per required inspec- tion	\$ <del>((50.00))</del> <u>55.00</u> mini- mum fee, per inspection
Field inspection(---)- Wheat seed only	\$ <del>((2.12))</del> <u>2.33</u> per acre or fraction thereof	\$ <del>((50.00))</del> <u>55.00</u> mini- mum fee, per inspection
Area inspection	\$ <del>((0.53))</del> <u>0.60</u> per acre	
Late fee - Per application	\$ <del>((41.00))</del> <u>50.00</u>	

**AMENDATORY SECTION** (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-310 Organization for economic cooperation and development scheme for varietal certification (O.E.C.D.) fees.** In addition to fees required by applicable Washington certification rules, the following fees shall apply to all seed tagged O.E.C.D. and is payable by the person requesting O.E.C.D. certificate. The certifying agency may require fees paid in advance:

Service	Fee	Additional Information
O.E.C.D. certificate	\$ <del>((15.41))</del> <u>17.00</u> each	
O.E.C.D. grow out test	\$ <del>((65.72))</del> <u>72.00</u> each entry	No charge for control entry
O.E.C.D. assessment	cost to program	This is a pass through fee to USDA
O.E.C.D. tagging fee*	\$ <del>((0.84))</del> <u>0.91</u> /cwt.	All grasses except tall fescue
	\$ <del>((0.51))</del> <u>0.55</u> /cwt.	Tall fescue
	\$ <del>((0.53))</del> <u>0.57</u> /cwt.	All other crops

\* Minimum tagging fee is \$13.00.

Seed	Application Fee 1/	Seedling field inspection fee	Seedling producing or field inspection Fee 2/	Late Application Penalty Fee	Reinspection Fee (other than isolation)	Production Fee (includes tagging) 7/10/ 11/	Seed shipped Out-of-State (uncleaned)
Alfalfa, Red clover, White clover and Trefoil	\$ <del>((30.00))</del> <u>32.25</u> per variety per grower	\$ <del>((50.00))</del> <u>54.00</u> per field	\$ <del>((1.85))</del> <u>2.00</u> per acre	\$ <del>((41.00))</del> <u>50.00</u>	\$ <del>((53.44 ea-))</del> <u>58.00</u> per field	\$ <del>((0.53))</del> <u>0.57</u> /cwt. 5/	\$ <del>((0.20))</del> <u>0.22</u> /cwt.
Bean	\$ <del>((30.00))</del> <u>32.25</u> per variety per grower	N/A	\$ <del>((1.85))</del> <u>2.00</u> per acre 3/ (one inspection) \$ <del>((3.70))</del> <u>4.00</u> per acre 4/ (two inspections)	\$ <del>((41.00))</del> <u>50.00</u>	\$ <del>((53.44 ea-))</del> <u>58.00</u> per field	\$ <del>((0.53))</del> <u>0.57</u> /cwt.	\$ <del>((0.20))</del> <u>0.22</u> /cwt.
Turnip, Rutabaga, Kale	\$ <del>((30.00))</del> <u>32.25</u> per field	N/A	\$ <del>((3.70))</del> <u>4.00</u> per acre (two inspections)	\$ <del>((41.00))</del> <u>50.00</u>	\$ <del>((53.44 each))</del> <u>58.00</u> per field	\$ <del>((0.53))</del> <u>0.57</u> /cwt.	\$ <del>((0.20))</del> <u>0.22</u>
Perennial Grasses 6/	\$ <del>((30.00))</del> <u>32.25</u> per field	\$ <del>((50.00))</del> <u>54.00</u> per field	\$ <del>((50.00))</del> <u>54.00</u> per field	\$ <del>((41.00))</del> <u>50.00</u>	\$ <del>((53.44 each))</del> <u>58.00</u> per field	Option A \$ <del>((0.84))</del> <u>0.91</u> /cwt. for all grass except tall fescue \$ <del>((0.51))</del> <u>0.55</u> /cwt. tall fescue	\$ <del>((0.31))</del> <u>0.34</u>

**AMENDATORY SECTION** (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-315 Service fee for sod quality seed tags and tagging.** Service fee for sod quality seed tags and tagging shall be \$~~((0.22))~~ 0.25 per cwt. Minimum tagging fee is \$13.00.

**AMENDATORY SECTION** (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-317 Annual and rough bluegrass quarantine fees.** Fees for sampling and analysis for the presence of annual or rough bluegrass are those fees established in this chapter and:

(1) Annual bluegrass and rough bluegrass - Inspection fee for nursery plantings for the presence of annual bluegrass is \$~~((59.10))~~ 63.53 per acre or portion thereof. ~~((The tagging fee is \$0.53 cwt. with a minimum fee of \$23.12.))~~

(2) Quarantine inspection of grass seed fields found to be in violation of the quarantine requirements will be charged at the rate of \$~~((200.00))~~ 215.00 per field inspection.

**AMENDATORY SECTION** (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-320 Certification fees for seed certified by the department.** (1) Fees apply to both new and renewal applications.

The seed processor is responsible for seed certification fees including sampling, testing, production and final certification fees, and may accept responsibility for any other additional fees associated with certification. Fees for services such as O.E.C.D. and sod quality, etc., are in addition to the fees listed in this section.

Seed	Application Fee 1/	Seedling field inspection fee	Seedling producing or field inspection Fee 2/	Late Application Penalty Fee	Reinspection Fee (other than isolation)	Production Fee (includes tagging) 7/10/ 11/	Seed shipped Out-of-State (uncleaned)
						Option B \$ ((4-17)) 1.26/cwt. (min. \$ ((11-66)) 12.54)	
Corn	\$ ((30-00)) 32.25 per field	N/A	\$ ((50-00)) 55.00 first acre \$ ((10-99)) 12.00 ea. additional acre except hybrid corn \$ ((4-85)) 5.35 ea. additional acre	\$ ((41-00)) 50.00	————	\$ ((0-11)) 0.15 per tag issued ((or minimum fee of \$10.00 per lot))	\$ ((3-00)) 4.00 per document
Annual grasses	\$ ((30-00)) 32.25 per field	N/A	\$ ((1-85)) 2.00 per acre	\$ ((41-00)) 50.00 per field	\$ ((53-44 each)) 58.00 per field	\$ ((0-42)) 0.45/cwt.	\$ ((0-20)) 0.22
Rapeseed, Canola, and Mustard	\$ ((30-00)) 32.25 per variety per grower	N/A	\$ ((1-85)) 2.00 per acre (one inspection)	\$ ((41-00)) 50.00 per grower	\$ ((53-44 ea-)) 58.00 per field	\$ ((0-53)) 0.57/cwt.	\$ ((0-20)) 0.22

- 1/ Seed certification application due dates can be found in WAC 16-302-050.
- 2/ Seedling producing or field inspection fees are refundable if the acreage is withdrawn before the inspection is completed. In the case of bean seed, fees are required of seedling fields to be harvested for certification the year of planting.
- 3/ One inspection is required for Great Northern Red Mexican, pinto, pink, and small white bean.
- 4/ Includes windrow inspection which is required for certification of snap beans, kidney beans, and eligibility for shipment into the state of Idaho.
- 5/ Production fees are billed at completion of laboratory analysis tests. If no seed is tagged, \$0.10 of the \$((0-53)) 0.57 per cwt. production fee is refundable.
- 6/ Option A: Inspection and final certification fees are based on pounds sampled and billed upon completion of required laboratory tests.  
Option B: Inspection and final certification fees are based on pounds tagged after required laboratory tests are completed. Those dealers requesting sampling and tagging privileges and/or participation in Option B must sign a memorandum of agreement that shall expire on June 30 of each year. The memorandum may be terminated by the director if the conditioner violates certification standards or requirements of memorandum.
- 7/ Does not include shipping and handling charge for tags.
- 8/ Service inspection of seed fields  
Service inspection will be charged the established hourly rate inclusive of travel time and inspection time. This excludes the seedling inspection which is charged according to the above chart.  
Service inspections will be charged a mileage fee based upon the OFM mileage rate.
- 9/ Hybrid inspections (pollen counts)  
All crops except corn:

- (a) \$((45-00)) 48.50 per inspection if done at the time of the certification inspection.
- (b) \$((125)) 135.00 per inspection if not conducted at the time of the certification inspection.

10/ Minimum tagging fee is \$13.00.

11/ For seed lots in packages of less than 25 lbs., tags are \$0.15 per tag in addition to the production fee.

(2) Other fees associated with grass seed certification:

Out-of-state origin seed tagged with interagency certification tags.

Grass Option A:	\$ ((0-31)) 0.33 per cwt.
Grass Option B:	\$ ((0-68)) 0.73 per cwt.
<del>(Reissuance of cert. tags:</del>	<del>\$ 0.11 per tag or minimum fee of \$ 11.66)</del>

(3) Reissuance of certification tags is \$0.15 per tag or a minimum fee of \$13.00.

**AMENDATORY SECTION** (Amending WSR 07-21-060, filed 10/12/07, effective 12/1/07)

**WAC 16-303-340 Seed certification fees for buckwheat, chickpea, field pea, lentil, millet, soybean, sorghum and small grains.** (1) Seed certification fees for buckwheat, chickpea, field pea, lentil, millet, soybean, sorghum and small grains are as follows:

(a) Application fee per variety per grower .....	\$((22-97)) 25.00
(b) Field inspection fee per acre except millet and hybrid sorghum .....	\$((3-11)) 3.15
(c) Millet - First acre .....	\$32.55
-Each additional acre .....	\$((6-48)) 6.50
(d) Hybrid sorghum - First acre .....	\$32.55
-Each additional acre .....	\$13.00

(e) Special field inspection fee per acre .....	<del>\$(2.58)</del> 2.60
(f) Late application fee .....	<del>\$(30.75)</del> 50.00
(g) Reinspection fee .....	<del>\$(43.10)</del> 45.00
minimum for each field which did not pass field inspection plus \$0.46 for each acre over twenty-five. The reinspection fee for isolation requirements only for a field of any size is \$43.10.	
(h) Final certification fee .....	\$0.25
per cwt. of clean seed sampled, which is charged to conditioning plant, or production fee .....	\$0.105
per cwt. of production from fields inspected which is utilized for seed, which is charged to the grower or the final seller prior to brokerage, retail sale, sale to plant not approved for conditioning certified seed, or transshipment out-of-state.	
(i) Sampling fee .....	\$0.105
per cwt. of clean seed sampled, with minimum charge of \$10.30 per sample, which is charged to conditioning plant in lieu of mechanical sampling.	

(2) A field may be withdrawn upon notification by the applicant to the certifying agency's office before field inspection. In such case, the field inspection fee is refunded upon request until June 30 of the year following harvest.

(3) Harvest before field inspection causes forfeitures of both the application and field inspection fees, and completion of certification.

**WSR 12-16-079  
PROPOSED RULES  
BOARD OF  
PILOTAGE COMMISSIONERS**

[Filed July 31, 2012, 2:06 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-10-024.

Title of Rule and Other Identifying Information: WAC 363-116-360 Exempt vessels.

Hearing Location(s): 2901 Third Avenue, 1st Floor, Agate Conference Room, Seattle, WA 98121, on September 13, 2012, at 9:30 a.m.

Date of Intended Adoption: September 13, 2012.

Submit Written Comments to: Captain Harry Dudley, Chairman, 2901 Third Avenue, Suite 500, Seattle, WA 98121, e-mail [larsonp@wsdot.wa.gov](mailto:larsonp@wsdot.wa.gov), fax (206) 515-3906, by September 6, 2012.

Assistance for Persons with Disabilities: Contact Shawna Erickson by September 10, 2012, (206) 515-3647.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed change to this rule regarding the tonnage limitation on foreign flagged yachts applying for a pilotage exemption is necessary due to the passage of SB 6171 which amended RCW 88.16.070 and became effective on June 7, 2012. The new rule will reflect the increase to the tonnage limitation from five hundred to seven hundred fifty gross tons (international).

Application procedures have been modified, as well as the fee structure and the petition form.

A definition of "annual renewal" is provided.

Reasons Supporting Proposal: It is the board's intent to align the language of the rule with that of the statute.

Stakeholder comments are welcome and continue to be considered.

Statutory Authority for Adoption: Chapter 88.16 RCW.

Statute Being Implemented: Chapter 88.16 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: The proposed modifications to this rule are intended to accommodate not only larger yachts, but all yachts transiting Washington state pilotage waters who meet the vessel exemption criteria.

Name of Proponent: Board of pilotage commissioners, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Board of Pilotage Commissioners, 2901 Third Avenue, Seattle, WA 98121, (206) 515-3904.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The application of the proposed modifications is clear in the description of the proposal and its anticipated effects as well as the proposed language shown below.

A cost-benefit analysis is not required under RCW 34.05.328. RCW 34.05.328 does not apply to the adoption of these rules. The Washington state board of pilotage commissioners is not a listed agency in RCW 34.05.328 (5)(a)(i).

July 31, 2012

Peggy Larson

Executive Director

AMENDATORY SECTION (Amending WSR 10-24-085, filed 11/30/10, effective 12/31/10)

**WAC 363-116-360 Exempt vessels.** (1) Under the authority of RCW 88.16.070, application may be made to the board of pilotage commissioners to seek exemption from the pilotage requirements for the operation of a limited class of small passenger vessels (~~(or yachts)~~), which are not more than five hundred gross tons (international), do not exceed two hundred feet in length, and are operated exclusively in the waters of the Puget Sound pilotage district and lower British Columbia, or yachts, which are not more than seven hundred fifty gross tons (international), and do not exceed two hundred feet in length. For purposes of this section, any ves-



sel carrying passengers for a fee, including yachts under charter where both the vessel and crew are provided for a fee, shall be considered a passenger vessel.

The owners or operators of the vessel for which exemption is sought must:

(a) Complete and file with the board a petition requesting an exemption at least ~~((sixty days))~~ forty-eight hours prior to planned vessel operations ~~((in the Puget Sound pilotage district))~~ where possible. Petitions filed with less than ~~((sixty days))~~ forty-eight hours notice may be considered by the chair at the chair's discretion~~((-~~

~~((b) The petition requesting exemption shall be))~~ on a board-approved form ~~((which))~~. The form shall include a description of the vessel, the contemplated use of vessel, the proposed area of operation, the names and addresses of the vessel's owner and operator, the areas and dates of planned operations, and such other information as the board shall require ~~((on its petition form))~~.

~~((e))~~ (b) Pay the appropriate initial application or renewal fee with the submittal of the petition, which is listed in subsection (5) of this section.

(2) All petitions for exemption filed with the board shall be ~~((reviewed by the chair, who shall make a recommendation to the board to be))~~ considered at its next regularly or specially scheduled meeting. Consistent with the public interest, the chair may grant an interim exemption to a petitioner subject to final approval at the next board meeting, where special time or other conditions exist.

(3) Any grant of an ((interim)) exemption, including interim exemptions, may contain such conditions as the board, or in the case of an interim exemption, the chair, deems necessary to protect the public interest in order to prevent the loss of human life and property and to protect the marine environment of the state of Washington.

Such conditions may include: A requirement that the vessel employ the services of a pilot on its initial voyage into ((Puget Sound)) state pilotage waters; and/or that the master of the vessel at all times hold as a minimum, a United States government license as a master of ocean or near coastal steam or motor vessels of not more than sixteen hundred gross tons or as a master of inland steam or motor vessels of not more than five hundred gross tons, such license to include a current radar endorsement; and/or that the vessel possess specific navigational charts, publications and navigational equipment necessary to ensure safe operation.

~~((3) The recommendation of the chair shall be considered at the next regular or specially scheduled meeting of the board. Interested parties shall receive notice and opportunity for hearing at that time, provided that the party notifies the board at least five days in advance of the meeting of its desire for hearing.))~~

(4) The board shall annually, or at any other time when in the public interest, review any exemptions granted to the specified class of small vessels to ensure that each exempted vessel remains in compliance with the original exemption and any conditions to the exemption. The board shall have the authority to revoke such exemption when there is not continued compliance with the requirements for exemption.

(5) Fee Schedule for Petitioners for Exemption

	3 Months or Less	1 Year or Less	Annual Renewal
<b>A. Yachts</b>			
Up to and including 50 feet LOA	<del>\$(300)</del> <u>50</u>	<del>\$(500)</del> <u>50</u>	<del>\$(200)</del> <u>50</u>
Up to and including 100 feet LOA	450	750	300
Up to and including 200 feet LOA	750	1125	450
<b>B. Passenger Vessels</b>			
Up to and including 100 feet LOA	1125	1500	600
Up to and including 200 feet LOA	1500	1500	750

(6) Petitions for annual renewals must be submitted prior to expiration of the previous exemption, provided that a vessel not operating in the waters of the pilotage district at the time an exemption expires, may request a renewal up to thirty days after expiration of the prior exemption.

**WSR 12-16-082**

**PROPOSED RULES**

**BUILDING CODE COUNCIL**

[Filed July 31, 2012, 3:27 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-03-108.

Title of Rule and Other Identifying Information: Adoption and amendment of the 2012 Uniform Plumbing Code, chapter 51-56 WAC; and repeal of chapter 51-57 WAC, 2009 Uniform Plumbing Code Standards (now included in the amendment of chapter 51-56 WAC).

Hearing Location(s): Center Place Event Center, 2426 North Discovery Place, Spokane Valley, WA 99216, on September 14, 2012, at 10 a.m.; and at the DES Presentation Room, 1500 Jefferson S.E., Olympia, WA 98504, on September 21, 2012, at 10 a.m.

Date of Intended Adoption: November 9, 2012.

Submit Written Comments to: Ray Allshouse, Chair, State Building Code Council, P.O. Box 41449, Olympia, WA 98504-1449, e-mail sbcc@ga.wa.gov, fax (360) 586-9088, by September 21, 2012.

Assistance for Persons with Disabilities: Contact Peggy Bryden by September 7, 2012, (360) 407-9280.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules adopt the most recently published edition of the UPC and make changes to the state amendments to this code.

**Summary of Changes in Existing Rules:**

1. The amendment to Section 102.4 was removed as the 2012 UPC includes new language that covers appeals.

2. Modify the definition of "insanitary" for consistency with UPC requirements for waterless urinals, to specify they are an allowable fixture.

3. Modify Section 408.4 and Table 703.2 regarding replacement fixtures. This will allow, in residential remodel situations, existing 1-1/2 inch piping to be used during residential remodels for a tub/shower replacement and an existing 3 inch horizontal waste pipe to be used in some cases for an additional water closet.

4. Section 407.5 was relocated to Section 402.5.

5. UPC water conservation requirements for prerinse spray valves were added in Section 403.5

6. Modify requirements in Section 414.3 for drainage connections for dishwashing machines for consistency with existing state requirements in Chapter 7.

7. The amendment to Section 601.1 was deleted; this language is now mirrored in the 2012 UPC.

8. Modify Sections 603.5.15 and 612 regarding residential fire sprinklers for consistency with IRC and IBC requirements, and with 2012 UPC language.

9. Amend Section 612 to clarify that domestic water piping is required to meet the insulation requirements in the energy code.

10. Section 701.1 was modified to be consistent with an editorial change in the formatting for the 2012 UPC. The existing amendment is item 2, the rest is unamended and was previously in separate sections.

11. Modify Section 705.4.2 regarding mechanical joints, requiring metallic shielding for both above and below ground installations of hubless cast-iron pipe and fittings.

12. Amend Section 1014.1.3 to clarify the requirements apply to hydromechanical grease interceptors.

13. The 2009 Chapter 16 language is deleted and replaced with the 2012 UPC language for reclaimed water (New Chapter 16) and rainwater (New Chapter 17) systems. A few amendments were retained for consistency with other state agency requirements.

14. Chapter 51-57 WAC was repealed and the adoption of appendix chapters of the UPC was added to chapter 51-56 WAC.

The remaining changes are in response to editorial changes or reorganizational moves in the 2012 UPC.

Reasons Supporting Proposal: RCW 19.27.031 and 19.27.074.

Statutory Authority for Adoption: RCW 19.27.031 and 19.27.074.

Statute Being Implemented: Chapters 19.27 and 34.05 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: The council is seeking comments on the issues proposed in the rules shown below.

Name of Proponent: Washington state building code council, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Krista Braaksma, 1500 Jefferson S.E., P.O. Box 41449, Olympia, WA, (360) 407-9278; and Enforcement: Local jurisdictions.

No small business economic impact statement has been prepared under chapter 19.85 RCW. As part of the review process, the technical advisory group (TAG) examined all changes to the plumbing code and found no items with a disproportional impact on small businesses. The majority of the changes between the 2009 edition and the 2012 edition were editorial in nature. The two code change proposals moved forward were clarifying language.

The state building code council is not one of the agencies identified as required to prepare a school district impact statement.

A cost-benefit analysis is not required under RCW 34.05.328. The state building code council is not one of the agencies identified as required to prepare an analysis.

July 31, 2012

C. Ray Allshouse  
Council Chair

### Chapter 51-56 WAC

#### STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE ~~((2009))~~ 2012 EDITION OF THE UNIFORM PLUMBING CODE

AMENDATORY SECTION (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

**WAC 51-56-003 Uniform Plumbing Code.** The ~~((2009))~~ 2012 edition of the Uniform Plumbing Code, including Appendices A, B, and I, published by the International Association of Plumbing and Mechanical Officials, is hereby adopted by reference with the following additions, deletions and exceptions: Provided that chapters 12 and 15 of this code are not adopted. Provided further, that those requirements of the Uniform Plumbing Code relating to venting and combustion air of fuel fired appliances as found in chapter 5 and those portions of the code addressing building sewers are not adopted.

#### NEW SECTION

**WAC 51-56-004 Conflicts between Appendix I and the manufacturer's installation instructions.** Where a conflict exists between the provisions of Appendix I and the manufacturer's installation instructions, the conditions of the listing and the manufacturer's installation instructions shall apply.

AMENDATORY SECTION (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

**WAC 51-56-008 Implementation.** The Uniform Plumbing Code adopted by chapter 51-56 WAC shall become effective in all counties and cities of this state on July 1, ~~((2010))~~ 2013, unless local government residential amendments have been approved by the state building code council.

AMENDATORY SECTION (Amending WSR 04-01-110, filed 12/17/03, effective 7/1/04)

**WAC 51-56-0100 Chapter 1—Administration.**

**101.4.1.4 Conflict Between Codes.** Delete paragraph.

~~((102.4 Appeals. All persons shall have the right to appeal a decision of the authority having jurisdiction. The jurisdiction shall have a board of appeals to hear and rule on Plumbing Code appeals. Members of the board shall be appointed by the jurisdiction. Decisions by the board shall be reported to the jurisdiction and administered by the authority having jurisdiction.))~~

**103.1.3 Certification.** State rules and regulations concerning certification shall apply.

AMENDATORY SECTION (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

**WAC 51-56-0200 Chapter 2—Definitions.**

**205.0 Certified Backflow Assembly Tester** - A person certified by the Washington state department of health under chapter 246-292 WAC to inspect (for correct installation and approval status) and test (for proper operation) approved backflow assemblies.

**210.0 Hot Water** - Water at a temperature exceeding or equal to 100°F.

**211.0 Insanitary** - A condition that is contrary to sanitary principles or is injurious to health. Conditions to which "insanitary" shall apply include the following:

- (1) A trap that does not maintain a proper trap seal.
- (2) An opening in a drainage system, except where lawful, that is not provided with an approved liquid-sealed trap.
- (3) A plumbing fixture or other waste discharging receptor or device that is not supplied with water sufficient to flush and maintain the fixture or receptor in a clean condition, except as otherwise provided in this code.
- (4) A defective fixture, trap, pipe, or fitting.
- (5) A trap, except where in this code exempted, directly connected to a drainage system, the seal of which is not protected against siphonage and backpressure by a vent pipe.
- (6) A connection, cross-connection, construction, or condition, temporary or permanent, that would permit or make possible by any means whatsoever for an unapproved foreign matter to enter a water distribution system used for domestic purposes.
- (7) The foregoing enumeration of conditions to which the term "insanitary" shall apply, shall not preclude the application of that term to conditions that are, in fact, insanitary.

**218.0 Plumbing System** - Includes all potable water, building supply and distribution pipes, all reclaimed water systems, all plumbing fixtures and traps, all drainage and vent pipe(s), and all building drains including their respective joints and connection, devices, receptors, and appurtenances within the property lines of the premises and shall include potable water piping, potable water treating or using equipment, medical gas and medical vacuum systems, and water

heaters: Provided, That no certification shall be required for the installation of a plumbing system within the property lines and outside a building.

AMENDATORY SECTION (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

**WAC 51-56-0300 Chapter 3—General regulations.**

~~((301.1.3))~~ **301.1.2 Standards.** Standards listed or referred to in this chapter or other chapters cover materials which will conform to the requirements of this code, when used in accordance with the limitations imposed in this or other chapters thereof and their listing. Where a standard covers materials of various grades, weights, quality, or configurations, ~~((there may be only a))~~ the portion of the listed standard ~~((which))~~ that is applicable shall be used. Design and materials for special conditions or materials not provided for herein are allowed to be used by special permission of the authority having jurisdiction after the authority having jurisdiction has been satisfied as to their adequacy in accordance with Section 301.2.

~~((311.4))~~ **310.4 Use of Vent and Waste Pipes.** Except as hereinafter provided in Sections 908.0, 909.0, 910.0, and Appendix ~~((C))~~ C, no vent pipe shall be used as a soil or waste pipe, nor shall any soil or waste pipe be used as a vent.

~~((313.6))~~ **312.6 Freezing Protection.** No water, soil, or waste pipe shall be installed or permitted outside of a building or in an exterior wall unless, where necessary, adequate provision is made to protect such pipe from freezing. All hot and cold water pipes installed outside the conditioned space shall be insulated to a minimum ~~((R-3))~~ R-4.

~~((313.7))~~ **312.7 Fire-Resistant Construction.** All pipe penetrating floor/ceiling assemblies and fire-resistance rated walls or partitions shall be protected in accordance with the requirements of the building code.

AMENDATORY SECTION (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

**WAC 51-56-0400 Chapter 4—Plumbing fixtures and fixture fittings.**

~~((402.0))~~ **402.5 Setting.** Fixtures shall be set level and in proper alignment with reference to adjacent walls. No water closet or bidet shall be set closer than fifteen (15) inches (381 mm) from its center to any side wall or obstruction nor closer than thirty (30) inches (762 mm) center to center to any similar fixture. The clear space in front of any water closet or bidet shall be not less than twenty-one (21) inches (533 mm). No urinal shall be set closer than twelve (12) inches (305 mm) from its center to any side wall or partition nor closer than twenty-four (24) inches (610 mm) center to center.

EXCEPTION: The installation of paper dispensers or accessibility grab bars shall not be considered obstructions.

**403.0 Water-Conserving Fixtures and Fittings.**

~~((402.4))~~ **403.1** The purpose of this section shall be to implement water conservation performance standards in accordance with RCW 19.27.170.

~~((402.2))~~ **403.2 Application.** This section shall apply to all new construction and all remodeling involving replacement of plumbing fixtures and fittings in all residential, hotel, motel, school, industrial, commercial use, or other occupancies determined by the council to use significant quantities of water. Plumbing fixtures, fittings and appurtenances shall conform to the standards specified in this section and shall be provided with an adequate supply of potable water to flush and keep the fixtures in a clean and sanitary condition without danger of backflow or cross-connection.

~~((402.3))~~ **403.3 Water Efficiency Standards.**

~~((402.3.1))~~ **403.3.1 Standards for Vitreous China Plumbing Fixtures.**

~~((402.3.1.1))~~ **403.3.1.1** The following standards shall be adopted as plumbing materials, performance standards, and labeling standards for water closets and urinals. Water closets and urinals shall meet either the ANSI/ASME standards or the CSA standard.

ANSI/ASME <del>((A112.19.2M-1998))</del> <u>A112.19.2-2008/CSA B45.1-2008</u>	Vitreous China Plumbing Fixtures
ANSI/ASME A112.19.6- 1995 <del>((CSA B45</del>	Hydraulic Requirements for Water Closets and Urinals <del>CSA Standards on Plumb- ing Fixtures))</del>

~~((402.3.1.2))~~ **403.3.1.2** The maximum water use allowed in gallons per flush (gpf) or liters per flush (lpf) for any of the following water closets shall be the following:

Tank-type toilets	1.6 gpf/6.0 lpf
Flushometer-valve toilets	1.6 gpf/6.0 lpf
Flushometer-tank toilets	1.6 gpf/6.0 lpf
Electromechanical hydraulic toilets	1.6 gpf/6.0 lpf

EXCEPTIONS:

1. Water closets located in day care centers, intended for use by young children may have a maximum water use of 3.5 gallons per flush or 13.25 liters per flush.
2. Water closets with bed pan washers may have a maximum water use of 3.5 gallons per flush or 13.25 liters per flush.
3. Blow out bowls, as defined in ANSI/ASME A112.19.2M, Section 5.1.2.3 may have a maximum water use of 3.5 gallons per flush or 13.25 liters per flush.

~~((402.3.1.3))~~ **403.1.3** The maximum water use allowed for any urinal shall be 1.0 gallons per flush or 3.78 liters per flush.

~~((402.3.1.3.1))~~ **403.3.1.3.1 Nonwater Urinals.** Nonwater urinals shall be listed and comply with the applicable standards referenced in Table ~~((14-1))~~ 1401.1. Nonwater urinals shall have a barrier liquid sealant to maintain a trap seal. Nonwater urinals shall permit the uninhibited flow of waste through the urinal to the sanitary drainage system. Nonwater urinals shall be cleaned and maintained in accordance with the manufacturer's instructions after installation. Where nonwater urinals are installed, they shall have a water distribu-

tion line rough-in to the urinal location to allow for the installation of an approved backflow prevention device in the event of a retrofit.

~~((402.3.1.4))~~ **403.3.1.4** No urinal or water closet that operates on a continuous flow or continuous flush basis shall be permitted.

~~((402.3.1.5))~~ **403.3.1** This section does not apply to fixtures installed before the effective date of this Section, that are removed and relocated to another room or area of the same building after the effective date of this Section.

~~((402.3.2))~~ **403.3.2 Standards for Plumbing Fixture Fittings.**

~~((402.3.2.1))~~ **403.3.2.1** The following standards are adopted as plumbing material, performance requirements, and labeling standards for plumbing fixture fittings. Faucets, aerators, and shower heads shall meet either the ANSI/ASME standard or the CSA standard.

ANSI/ASME <del>((A112.18.1M-1996))</del> <u>A112.18.1-2005/CSA B125-1- 2005</u>	Plumbing Fixture Fit- tings
<del>((CSA B125</del>	<del>Plumbing Fittings))</del>

~~((402.3.2.2))~~ **403.3.2.2** The maximum water use allowed for any shower head is 2.5 gallons per minute or 9.5 liters per minute.

EXCEPTION: Emergency use showers shall be exempt from the maximum water usage rates.

~~((402.3.2.3))~~ **403.3.2.3** The maximum water use allowed in gallons per minute (gpm) or liters per minute (lpm) for any of the following faucets and replacement aerators is the following:

Lavatory faucets	2.5 gpm/9.5 lpm
Kitchen faucets	2.5 gpm/9.5 lpm
Replacement aerators	2.5 gpm/9.5 lpm
Public lavatory faucets other than metering	0.5 gpm/1.9 lpm

~~((402.4))~~ **403.4 Metering Valves.** Lavatory faucets located in restrooms intended for use by the general public shall be equipped with a metering valve designed to close by spring or water pressure when left unattended (self-closing).

EXCEPTIONS:

1. Where designed and installed for use by persons with a disability.
2. Where installed in day care centers, for use primarily by children under 6 years of age.

~~((402.5))~~ **403.5 Prerinse Spray Valve.** Commercial food service prerinse spray valves shall have a maximum flow rate of 1.6 gallons per minute (gpm) at 60 pounds-force per square inch (psi) (0.10 L/s at 414 kPa) in accordance with ASME A112.18.1/CSA B125.1 and shall be equipped with an integral automatic shutoff.

**403.6 Implementation.**

~~((402.5.1))~~ **403.6.1** The standards for water efficiency and labeling contained within Section 402.3 shall be in effect as

of July 1, 1993, as provided in RCW 19.27.170 and amended July 1, 1998.

~~((402.5.2)) 403.6.2~~ No individual, public or private corporation, firm, political subdivision, government agency, or other legal entity, may, for purposes of use in the state of Washington, distribute, sell, offer for sale, import, install, or approve for installation any plumbing fixtures or fittings unless the fixtures or fittings meet the standards as provided for in this Section.

~~((407.5 Setting.~~ Fixtures shall be set level and in proper alignment with reference to adjacent walls. No water closet or bidet shall be set closer than fifteen (15) inches (381 mm) from its center to any side wall or obstruction nor closer than thirty (30) inches (762 mm) center to center to any similar fixture. The clear space in front of any water closet or bidet shall be not less than twenty one (21) inches (533 mm). No urinal shall be set closer than twelve (12) inches (305 mm) from its center to any side wall or partition nor closer than twenty four (24) inches (610 mm) center to center.

EXCEPTION: The installation of paper dispensers or accessibility grab bars shall not be considered obstructions.

~~411.2 Location of Floor Drains.~~ Floor drains shall be installed in the following areas:

~~411.2.1~~ Toilet rooms containing two (2) or more water closets or a combination of one (1) water closet and one (1) urinal, except in a dwelling unit. The floor shall slope toward the floor drains.

~~411.2.2~~ Laundry rooms in commercial buildings and common laundry facilities in multifamily dwelling buildings.

~~411.7)) 408.4 Waste Outlet.~~ Showers shall have a waste outlet and fixture tailpiece not less than 2 inches (50 mm) in diameter. Fixture tailpieces shall be constructed from the materials specified in Section 701.1 for drainage piping. Strainers serving shower drains shall have a waterway at least equivalent to the area of the tailpiece.

EXCEPTION: In a residential dwelling unit where a 2 inch waste is not readily available and approval of the AHJ has been granted, the waste outlet, fixture tailpiece, trap and trap arm may be 1-1/2 inch when an existing tub is being replaced by a shower sized per Section 408.6(2). This exception only applies where one shower head rated at 2.5 gpm is installed.

**408.6 Shower Compartments.** Shower compartments, regardless of shape, shall have a minimum finished interior of nine hundred (900) square inches (0.58 m<sup>2</sup>) and shall also be capable of encompassing a thirty inch (762 mm) circle. The minimum required area and dimensions shall be measured at a height equal to the top of the threshold and at a point tangent to its centerline. The area and dimensions shall be maintained to a point of not less than seventy (70) inches (1.778

mm) above the shower drain outlet with no protrusions other than the fixture valve or valves, shower head, soap dishes, shelves, and safety grab bars or rails. Fold-down seats in accessible shower stalls shall be permitted to protrude into the thirty (30) inch (762 mm) circle.

EXCEPTIONS: 1. Showers that are designed to comply with ICC/ANSI A117.1.  
2. The minimum required area and dimension shall not apply for a shower receptor having overall dimensions of not less than thirty (30) inches (762 mm) in width and sixty (60) inches (1,524 mm) in length.

~~((412-0)) 414.3 Drainage Connection.~~ Domestic dishwashing machines shall discharge indirectly through an air gap fitting in accordance with Section 807.4 into a waste receptor, a wye branch fitting on the tailpiece of a kitchen sink, or dishwasher connection of a food waste grinder. Commercial dishwashing machines shall discharge indirectly through an air gap.

**418.3 Location of Floor Drains.** Floor drains shall be installed in the following areas:

1. Toilet rooms containing two (2) or more water closets or a combination of one (1) water closet and one (1) urinal, except in a dwelling unit. The floor shall slope toward the floor drains.

2. Laundry rooms in commercial buildings and common laundry facilities in multifamily dwelling buildings.

**422.0 Minimum Number of Required Fixtures.** For minimum number of plumbing fixtures required, see Building Code chapter 29 and Table 2902.1.

Sections ~~((412-1)) 422.1~~ through ~~((412-6)) 422.5~~ and Table ~~((4-1)) 422.1~~ are not adopted.

**AMENDATORY SECTION** (Amending WSR 11-05-037, filed 2/8/11, effective 7/1/13)

**WAC 51-56-0500 Chapter 5—Water heaters.**

**501.0 General.** The regulations of this chapter shall govern the construction, location, and installation of fuel burning and other water heaters heating potable water. The minimum capacity for water heaters shall be in accordance with the first hour rating listed in Table ~~((5-1)) 501.1~~. See the Mechanical Code for combustion air and installation of all vents and their connectors. All design, construction, and workmanship shall be in conformity with accepted engineering practices, manufacturer's installation instructions, and applicable standards and shall be of such character as to secure the results sought to be obtained by this Code. No water heater shall be hereinafter installed which does not comply in all respects with the type and model of each size thereof approved by the authority having jurisdiction. A list of accepted gas appliance standards is included in Table ~~((14-1)) 1401.1~~.

TABLE ~~((5-1)) 501.1~~<sup>1,3</sup>

Number of Bathrooms	1 to 1.5			2 to 2.5				3 to 3.5			
	1	2	3	2	3	4	5	3	4	5	6
Number of Bedrooms	1	2	3	2	3	4	5	3	4	5	6
First Hour Rating <sup>2</sup> , Gallons	42	54	54	54	67	67	80	67	80	80	80

- Notes: <sup>1</sup>The first hour rating is found on the "Energy Guide" label.  
<sup>2</sup>Nonstorage and solar water heaters shall be sized to meet the appropriate first hour rating as shown in the table.  
<sup>3</sup>For replacement water heaters, see Section ((101.4.1.1.1)) 101.6.

~~((502.2 Chimney—Delete definition.~~

~~502.3 Chimney, Factory Built—Delete definition.~~

~~502.4 Chimney, Masonry—Delete definition.~~

~~502.5 Chimney, Metal—Delete definition.~~

~~502.7 Direct Vent Appliance—Delete definition.~~

~~502.8 Flue Collar—Delete definition.~~

~~502.9 Gas Vent, Type B—Delete definition.~~

~~502.10 Gas Vent, Type L—Delete definition.~~

~~502.12 Vent—Delete definition.~~

~~502.13 Vent Connector—Delete definition.~~

~~502.14 Venting System—Delete definition.~~

~~504.1 Inspection of Chimneys or Vents. Delete paragraph.~~

~~505.1)) 504.1 Location.~~ Water heater installation in bedrooms and bathrooms shall comply with one of the following:

(1) Fuel-burning water heaters may be installed in a closet located in the bedroom or bathroom provided the closet is equipped with a listed, gasketed door assembly and a listed self-closing device. The self-closing door assembly shall meet the requirements of Section 505.1.1. The door assembly shall be installed with a threshold and bottom door seal and shall meet the requirements of Section 505.1.2. All combustion air for such installations shall be obtained from the outdoors in accordance with the International Mechanical Code. The closet shall be for the exclusive use of the water heater.

(2) Water heater shall be of the direct vent type.

~~((506.2)) 505.2 Safety Devices.~~ All storage-type water heaters deriving heat from fuels or types of energy other than gas, shall be provided with, in addition to the primary temperature controls, an over-temperature safety protection device constructed, listed, and installed in accordance with nationally recognized applicable standards for such devices and a combination temperature and pressure relief valve.

~~((507.0)) 506.0 Combustion Air.~~ For issues relating to combustion air, see the Mechanical Code.

Sections ~~((507.1)) 506.1~~ through ~~((507.9)) 506.9~~ are not adopted.

Sections ~~((508.6)) 507.6~~ through ~~((508.9)) 507.9~~ are not adopted.

~~((508.12 Delete entire section.~~

~~508.14)) 507.13 Installation in ((Residential)) Garages.~~ ~~((1))~~ Appliances in ~~((residential))~~ garages and in adjacent spaces that open to the garage and are not part of the living space of a dwelling unit shall be installed so that burners, burner-ignition devices and ignition sources are located not

less than 18 inches above the floor unless listed as flammable vapor ignition resistant.

~~((2)) Such appliances shall be located or protected so it is not subject to physical damage by a moving vehicle.~~

~~(3) When appliances are installed in a separate enclosed space having access only from outside of the garage, such appliances shall be permitted to be installed at floor level, providing the required combustion air is taken from the exterior of the garage.~~

~~508.18)) 507.16 Venting of Flue Gases - Delete entire section.~~

Sections ~~((508.20)) 507.18~~ through ~~((508.24.5)) 507.22~~ are not adopted.

~~((510.0)) 509.0 Venting of Equipment.~~ Delete entire section.

~~((511.0)) 510.0 Sizing of Category I Venting Systems.~~ Delete entire section.

~~((512.0)) 511.0 Direct Vent Equipment.~~ Delete entire section.

~~((Chapter 5, Part II is not adopted.))~~

AMENDATORY SECTION (Amending WSR 12-07-018, filed 3/12/12, effective 4/12/12)

**WAC 51-56-0600 Chapter 6—Water supply and distribution.** ~~((601.1 Except where not deemed necessary for safety or sanitation by the AHJ, each plumbing fixture shall be provided with an adequate supply of potable running water piped thereto in an approved manner, so arranged as to flush and keep it in a clean and sanitary condition without danger of backflow or cross-connection. Water closets and urinals shall be flushed by means of an approved flush tank or flushometer valve.~~

EXCEPTION: Listed fixtures that do not require water for their operation and are not connected to the water supply.

~~Kitchen sinks, lavatories, bathtubs, showers, bidets, laundry tubs and washing machine outlets shall be provided with hot and cold water. This requirement shall not supersede the requirements for individual temperature control limitations for public lavatories, bidets, bathtubs, whirlpool bathtubs and shower control valves.))~~

**601.2.2 Color and Information.** Each system shall be identified with a colored pipe or band and coded with paints, wraps and materials compatible with the piping.

Except as required in Chapter 16, nonpotable water systems shall have a yellow background with black uppercase lettering, with the words "CAUTION: NONPOTABLE WATER, DO NOT DRINK." Each nonpotable system shall be identified to designate the liquid being conveyed, and the direction of normal flow shall be clearly shown. The minimum size of the letters and the length of color field shall conform to Table ~~((6.1)) 601.2.2.~~

The background color and required information shall be indicated every twenty (20) feet (6,096 mm) but not less than once per room, and shall be visible from the floor level.

~~((603.0 Cross Connection Control.))~~ **603.1 General.** Cross-connection control shall be provided in accordance with the provisions of this chapter. Devices or assemblies for protection of the public water system must be models approved by the department of health under WAC 246-290-490. The authority having jurisdiction shall coordinate with the local water purveyor where applicable in all matters concerning cross-connection control within the property lines of the premises.

No person shall install any water operated equipment or mechanism, or use any water treating chemical or substance, if it is found that such equipment, mechanism, chemical or substance may cause pollution or contamination of the domestic water supply. Such equipment or mechanism may be permitted only when equipped with an approved backflow prevention device or assembly.

~~((603.1))~~ **603.2 Approval of Devices or Assemblies.** Before any device or assembly is installed for the prevention of backflow, it shall have first been approved by the authority

having jurisdiction. Devices or assemblies shall be tested for conformity with recognized standards or other standards acceptable to the authority having jurisdiction. Backflow prevention devices and assemblies shall comply with Table ~~((6-2))~~ **603.2**, except for specific applications and provisions as stated in Section ~~((603.4))~~ **603.5.1** through ~~((603.4.22))~~ **603.5.21**.

All devices or assemblies installed in a potable water supply system for protection against backflow shall be maintained in good working condition by the person or persons having control of such devices or assemblies. Such devices or assemblies shall be tested in accordance with Section ~~((603.3.3))~~ **603.4.2** and WAC 246-290-490. If found to be defective or inoperative, the device or assembly shall be replaced or repaired. No device or assembly shall be removed from use or relocated or other device or assembly substituted, without the approval of the authority having jurisdiction.

Testing shall be performed by a Washington state department of health certified backflow assembly tester.

**TABLE ~~((6-2))~~ 603.2**  
**Backflow Prevention Devices, Assemblies and Methods**  
 The following line is deleted from the table:

Device, Assembly or Method	Applicable Standards	Pollution (Low Hazard)		Contamination (High Hazard)		Installation
		Back Siphonage	Back Pressure	Back Siphonage	Back Pressure	
Backflow preventer for carbonated beverage dispensers (two independent check valves with a vent to the atmosphere.)	ASSE 1022	X				Installation includes carbonated beverage machines or dispensers. These devices operate under intermittent or continuous pressure conditions.

~~((603.3.3))~~ **603.4.2 Testing.** For devices and assemblies other than those regulated by the Washington department of health in conjunction with the local water purveyor for the protection of public water systems, the authority having jurisdiction shall ensure that the premise owner or responsible person shall have the backflow prevention assembly tested by a Washington state department of health certified backflow assembly tester:

- (1) At the time of installation, repair or relocation; and
- (2) At least on an annual schedule thereafter, unless more frequent testing is required by the authority having jurisdiction.

~~((603.4.6.1))~~ **603.5.6 Protection from Lawn Sprinklers and Irrigation Systems.** Potable water supplies to systems having no pumps or connections for pumping equipment, and no chemical injection or provisions for chemical injection, shall be protected from backflow by one of the following devices:

- (1) Atmospheric vacuum breaker (AVB).

- (2) Pressure vacuum breaker backflow prevention assembly (PVB).

- (3) Spill-resistant pressure vacuum breaker (SVB).

- (4) Reduced pressure principle backflow ~~((prevention))~~ prevention assembly (RP).

- (5) A double check valve backflow prevention assembly (DC) may be allowed when approved by the water purveyor and the authority having jurisdiction.

~~((603.4.10 Potable Water Make Up Connections to))~~ **603.5.10 Steam or Hot Water Boilers.** Potable water connections to steam or hot water boilers shall be protected by an air gap or a reduced pressure principle backflow preventer.

~~((603.4.12))~~ **603.5.12 Beverage Dispensers.** Potable water supply to carbonators shall be protected by a listed reduced pressure principle backflow preventer as approved by the authority having jurisdiction for the specific use. The backflow preventer shall be located in accordance with Section ~~((603.3.4))~~ **603.4.3**. The piping downstream of the backflow

preventer shall not be of copper, copper alloy, or other material that is affected by carbon dioxide.

~~((603.4.14))~~ **603.5.13 Prohibited Location.** Backflow preventers shall not be located in any area containing fumes or aerosols that are toxic, poisonous, infectious, or corrosive.

~~((603.4.16.1))~~ **603.5.15 Protection from Fire Systems.** Except as provided under Sections ~~((603.4.16.2))~~ 603.5.15.1 and ~~((603.4.16.3))~~ 603.5.15.2, potable water supplies to fire protection systems that are normally under pressure, including but not limited to standpipes and automatic sprinkler systems, except in one or two family or townhouse residential flow-through or combination sprinkler systems piped in materials approved for potable water distribution systems, shall be protected from back-pressure and back-siphonage by one of the following testable devices:

1. Double check valve backflow prevention assembly (DC).
2. Double check detector fire protection backflow assembly.
3. Reduced pressure principle backflow ~~((preventer))~~ prevention assembly (RP).
4. Reduced pressure detector fire protection backflow prevention assembly.

Potable water supplies to fire protection systems that are not normally under pressure shall be protected from backflow and shall meet the requirements of the appropriate standard(s) referenced in Table ~~((14.1))~~ 1401.1.

~~((604.15))~~ **604.14** Plastic water service piping may terminate within a building, provided the connection to the potable water distribution system shall be made as near as is practical to the point of entry and shall be accessible. Barbed insert fittings with hose clamps are prohibited as a transition fitting within the building.

**608.5 Drains.** Relief valves located inside a building shall be provided with a drain, not smaller than the relief valve outlet, of galvanized steel, hard drawn copper piping and fittings, CPVC, PP, or listed relief valve drain tube with fittings which will not reduce the internal bore of the pipe or tubing (straight lengths as opposed to coils) and shall extend from the valve to the outside of the building, with the end of the pipe not more than two (2) feet (610 mm) nor less than six (6) inches (152 mm) above the ground or the flood level of the area receiving the discharge and pointing downward. Such drains may terminate at other approved locations. No part of such drain pipe shall be trapped or subject to freezing. The terminal end of the drain pipe shall not be threaded.

EXCEPTION: Where no drainage was provided, replacement water heating equipment shall only be required to provide a drain pointing downward from the relief valve to extend between two feet (610 mm) and six inches (152 mm) from the floor. No additional floor drain need be provided.

**610.4** Systems within the range of Table ~~((6-6))~~ 610.4 may be sized from that table or by the method set forth in Section 610.5.

Listed parallel water distribution systems shall be installed in accordance with their listing.

**612.1 General.** Where residential fire sprinkler systems are installed, they shall be installed in accordance with the International Building Code or International Residential Code.

**613.0 Insulation of Potable Water Piping.** Domestic water piping within commercial buildings shall be insulated in accordance with Section C403.2.8 and Table C403.2.8 of the Washington State Energy Code.

**AMENDATORY SECTION** (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

**WAC 51-56-0700 Chapter 7—Sanitary drainage.**

~~((701.1.2))~~ **701.1 Drainage Piping.** Materials for drainage piping shall be in accordance with one of the referenced standards in Table 701.1 except that:

1. No galvanized wrought-iron or galvanized steel pipe shall be used underground and shall be kept not less than 6 inches (152 mm) above ground.

2. ABS and PVC DWV piping installations shall be installed in accordance with applicable standards in Table ~~((14.1))~~ 1401.1. Except for individual single family dwelling units, materials exposed within ducts or plenums shall have a maximum flame-spread index of ~~((not more than))~~ 25 and a maximum smoke developed index of ~~((not more than))~~ 50, when tested in accordance with ~~((the Test for Surface Burning Characteristics of the Building Materials (See the Building Code standards based on))~~ ASTM E-84 and ~~((ANSI))~~UL 723(~~(+)~~).

3. No vitrified clay pipe or fittings shall be used above ground or where pressurized by a pump or ejector. They shall be kept not less than 12 inches (305 mm) below ground.

4. Copper tube for drainage and vent piping shall have a weight of not less than that of copper drainage tube type DWV.

5. Stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than 6 inches (152 mm) above ground.

6. Cast-iron soil pipe and fittings shall be listed and tested in accordance with standards referenced in Table 1401.1. Such pipe and fittings shall be marked with country of origin and identification of the original manufacturer in addition to markings required by referenced standards.

**Table 703.2**

**MAXIMUM UNIT LOADING AND MAXIMUM LENGTH OF DRAINAGE AND VENT PIPING**

Notes:

1. Excluding trap arm.
2. Except sinks, urinals, and dishwashers - Exceeding 1 fixture unit.
3. Except six-unit traps or water closets.
4. Only four water closets or six-unit traps allowed on a vertical pipe or stack; and not to exceed three water closets or six-unit traps on a horizontal branch or drain.

EXCEPTION: In a single family dwelling addition or alteration where a 4 inch horizontal waste is not readily available four water closets not to exceed 1.6 gpf each may be allowed on a 3 inch horizontal waste when approved by the AHJ.



5. Based on one-fourth inch per foot (20.8 mm/m) slope. For one-eighths of an inch per foot (10.4 mm/m) slope, multiply horizontal fixture units by a factor of 0.8.

6. The diameter of an individual vent shall be not less than one and one-fourth inches (32 mm) nor less than one-half the diameter of the drain to which it is connected. Fixture unit load values for drainage and vent piping shall be computed from Table 702.1 and Table 702.2(b). Not to exceed one-third of the total permitted length of a vent shall be permitted to be installed in a horizontal position. Where vents are increased one pipe size for their entire length, the maximum length limitations specified in this table do not apply. This table is in accordance with the requirements of Section 901.2.

**704.3 Commercial Dishwashing Machines and Sinks.** Except where specifically required to be connected indirectly to the drainage system, or when first approved by the authority having jurisdiction, all plumbing fixtures, drains, appurtenances, and appliances shall be directly connected to the drainage system of the building or premises.

**705.4.2 Mechanical Joints.** Mechanical joints for cast-iron pipe and fittings shall be of the compression or mechanical joint coupling type. Compression type joints with an elastomeric gasket for cast-iron hub and spigot pipe shall comply with ASTM C 564. Hub and spigot shall be clean and free of dirt, mud, sand, and foreign materials. Cut pipe shall be free from sharp edges. Fold and insert gasket into hub. Lubricate the joint following manufacturer's instructions. Insert spigot into hub until the spigot end of the pipe bottom out in the hub. Use the same procedure for the installation of fittings.

A mechanical joint shielded coupling type for hubless cast-iron pipe and fittings shall have a metallic shield and shall comply with ASTM A 1056, ASTM C 1277, ASTM C 1540, or CISPI 310. The elastomeric gasket shall comply with ASTM C 564. Hubless cast-iron pipe and fittings shall be clean and free of dirt, mud, sand, and foreign materials. Cut pipe shall be free from sharp edges. Gasket shall be placed on the end of the pipe or fitting and the stainless steel shield and clamp assembly on the end of the other pipe or fitting. Pipe or fittings shall be seated against the center stop inside the elastomeric sleeve. Slide the stainless steel shield and clamp assembly into position centered over the gasket and tighten. Bands shall be tightened using an approved calibrated torque wrench specifically set by the manufacturer of the couplings.

**710.3 Sewage Ejector and Pumps.** The minimum size of any pump or any discharge pipe from a sump having a water closet connected thereto shall be not less than two (2) inches (52 mm).

~~((Sections 710.3.1 through 710.3.3 are not adopted.))~~

## CHAPTER 7, PART II—BUILDING SEWERS

**Part II Building Sewers.** Delete all of Part II (Sections 713 through 723, and Tables ~~((7-7))~~ 717.1 and ~~((7-8))~~ 721.1).

AMENDATORY SECTION (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

### WAC 51-56-0900 Chapter 9—Vents.

~~((903.1.2))~~ **903.1 Applicable Standards.** Vent pipe and fittings shall comply with the applicable standards referenced in Table 701.1, except that:

1. No galvanized steel or 304 stainless steel pipe shall be installed underground and shall be not less than 6 inches (152 mm) above ground.

2. ABS and PVC DWV piping installations shall be installed in accordance with applicable standards in Table ~~((14-1))~~ 1401.1. Except for individual single family dwelling units, materials exposed within ducts or plenums shall have a maximum flame-spread index of ~~((not more than))~~ 25 and a maximum smoke developed index of ~~((not more than))~~ 50, when tested in accordance with ~~((the Test for Surface Burning Characteristics of the Building Materials (see the Building Code standards based on))~~ ASTM E-84 and ~~((ANSI))~~ UL 723~~((+))~~.

~~((908.2.1 Where Permitted))~~ **908.2 Horizontal Wet Venting for Bathroom Groups.** Water closets, bathtubs, showers, bidets, and floor drains within one or two bathroom groups located on the same floor level and for private use shall be permitted to be vented by a wet vent. The wet vent shall be considered the vent for the fixtures and shall extend from the connection of the dry vent along the direction of the flow in the drain pipe to the most downstream fixture drain or trap arm connection to the horizontal branch drain. Each wet-vented fixture drain or trap arm shall connect independently to the wet-vented horizontal branch drain. Each individual fixture drain or trap arm shall connect horizontally to the wet-vented horizontal branch drain or shall be provided with a dry vent. The trap to vent distance shall be in accordance with Table ~~((10-1))~~ 1002.2. Only the fixtures within the bathroom groups shall connect to the wet-vented horizontal branch drain. The water closet fixture drain or trap arm connection to the wet vent shall be downstream of any fixture drain or trap arm connections. Any additional fixtures shall discharge downstream of the wet-vent system and be conventionally vented.

### NEW SECTION

**WAC 51-56-1000 Chapter 10—Traps and interceptors.**

**1014.1.3 Food Waste Disposal Units and Dishwashers.** Unless specifically required or permitted by the authority having jurisdiction, no food waste disposal unit or dishwasher shall be connected to or discharge into any hydromechanical grease interceptor. Commercial food waste disposers shall be permitted to discharge directly into the building's drainage system.

AMENDATORY SECTION (Amending WSR 07-01-094, filed 12/19/06, effective 7/1/07)

**WAC 51-56-1100 Chapter 11—Storm drainage.**

**1101.3 Material Uses.** Rainwater piping placed within the interior of a building or run within a vent or shaft shall be of cast iron, galvanized steel, wrought iron, brass, copper, lead, Schedule 40 ABS DWV, Schedule 40 PVC DWV, or other approved materials, and changes in direction shall conform to the requirements of Section 706.0. ABS and PVC DWV piping installations shall be installed in accordance with IS 5 and IS 9. Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a maximum flame-spread index of ~~((not more than))~~ 25 and a maximum smoke-developed index of ~~((not more than))~~ 50, when tested in accordance with ~~((the Test for Surface Burning Characteristics of the Building Materials (see the Building Code standards based on))~~ ASTM E-84 and ~~((ANSI))~~UL 723~~((?))~~.

~~((1101.12.0))~~ **1101.12 Cleanouts.** Cleanouts for building storm drains shall comply with the requirements of this section.

**1101.12.1** ~~((Cleanouts for building storm drains shall comply with the requirements of this section.))~~ **Locations.** Rain leaders and conductors connected to a building storm sewer shall have a cleanout installed at the base of the outside leader or outside conductor before it connects to the horizontal drain. Cleanouts shall be placed inside the building near the connection between the building drain and the building sewer or installed outside the building at the lower end of the building drain and extended to grade.

**1101.12.2 Cleaning.** Each cleanout shall be installed so that it opens to allow cleaning in the direction of flow of the soil or waste or at right angles thereto, and except in the case of wye branch and end-of-line cleanouts, shall be installed vertically above the flow line of the pipe.

**1101.12.3 Access.** Cleanouts installed under concrete or asphalt paving shall be made accessible by yard boxes, or extending flush with paving with approved materials and be adequately protected.

**1101.12.4 Manholes.** Approved manholes may be installed in lieu of cleanouts when first approved by the authority having jurisdiction. The maximum distance between manholes shall not exceed three hundred (300) feet (91.4 m).

The inlet and outlet connections shall be made by the use of a flexible compression joint no closer than twelve (12) inches (305 mm) to, and not farther than three (3) feet (914 mm) from the manhole. No flexible compression joints shall be embedded in the manhole base.

**1108.0 Controlled-Flow Roof Drainage.** This section is not adopted.

AMENDATORY SECTION (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

**WAC 51-56-1300 Chapter 13—Health care facilities and medical gas and vacuum systems.**

**Part II Medical Gas and Vacuum Systems**

**1309.0 Scope.**

**1309.1 General.** The provisions herein shall apply to the design, installation, testing, and verification of medical gas, medical vacuum systems, and related permanent equipment in hospitals, clinics, veterinary clinics and other health care facilities.

**1309.2 Purpose.** The purpose of this chapter is to provide minimum requirements for the design, installation, testing and verification of medical gas, medical vacuum systems, and related permanent equipment, from the central supply system to the station outlets or inlets.

~~((1313.3))~~ **1321.3 Minimum Station Outlets/Inlets.** Station outlets and inlets for medical gas and medical vacuum systems for facilities licensed or certified by Washington state department of health (DOH) or Washington state department of social and health services (DSHS) shall be provided as listed in chapter 246-320 WAC as required by the applicable licensing rules as applied by DOH construction review services. All other medical gas and medical vacuum systems shall be provided as listed in Table ~~((13-3))~~ 1312.3.

~~((1328.0))~~ **1327.0 System Verification.**

~~((1328.1))~~ **1327.1 Verification.** Prior to any medical gas system being placed in service, each and every system shall be verified as described in section 1328.2.

~~((1328.1.1))~~ **1327.1.1 Verification Tests.** Verification tests shall be performed only after all tests required in section ~~((1327.0))~~ 1326.0, Installer Performed Tests, have been completed.

Testing shall be conducted by a party technically competent and experienced in the field of medical gas and vacuum pipeline testing and meeting the requirements of ANSI/ASSE Standard 6030, Medical Gas Verifiers Professional Qualifications Standard.

Testing shall be performed by a party other than the installing contractor or material vendor.

When systems have been installed by in-house personnel, testing shall be permitted by personnel of that organization who meet the requirements of this section.

AMENDATORY SECTION (Amending WSR 10-03-101, filed 1/20/10, effective 7/1/10)

**WAC 51-56-1400 Chapter 14—Referenced standards.**

**TABLE ~~((14-1))~~ 1401.1**

**Standards for Materials, Equipment, Joints and Connections**

Where more than one standard has been listed for the same material or method, the relevant portions of all such standards shall apply.

Add the following standard to those listed in Table ~~((14-1))~~ 1401.1:

Standard Number	Standard Title	Application
WAC 246-290-490	Washington State Department of Health Cross-connection Control Requirements	Backflow Protection

AMENDATORY SECTION (Amending WSR 12-07-018, filed 3/12/12, effective 4/12/12)

**WAC 51-56-1600 Chapter 16—(~~Gray water systems~~) Alternate water sources for nonpotable applications.**

~~(Part I,)~~ **1601.1.1 Allowable use of Alternative Water.** Where approved or required by the authority having jurisdiction, alternate water sources (reclaimed (recycled) water, gray water and on-site treated nonpotable water) shall be permitted to be used in lieu of potable water for the applications identified in this chapter. Gray water shall not be used for irrigation except as permitted by the department of health rules.

**1601.2 System Design.** Alternate water source systems in accordance with this chapter shall be designed by a person registered or licensed to perform plumbing design work. Components, piping, and fittings used in an alternate water source system shall be listed.

**1601.3 Permit.** It shall be unlawful for a person to construct, install, alter, or cause to be constructed, installed, or altered an alternate water source system in a building or on a premise without first obtaining a permit to do such work from the authority having jurisdiction.

**EXCEPTIONS:**

1. A permit is not required for exterior rainwater catchment systems used for outdoor drip and subsurface irrigation with a maximum storage capacity of 360 gallons (1363 L).
2. A plumbing permit is not required for rainwater catchment systems for single family dwellings where outlets, piping, and system components are located on the exterior of the building. This does not exempt the need for permits where required for electrical connections, tank supports, or enclosures.

**1601.5.2 Maintenance Log.** A maintenance log for gray water, and on-site treated nonpotable water systems required to have a permit in accordance with Section 1601.3 shall be maintained by the property owner and be available for inspection. The property owner or designated appointee shall ensure that a record of testing, inspection and maintenance in accordance with Table 1601.5 is maintained in the log. The log will indicate the frequency of inspection and maintenance for each system.

**1602.0 Gray Water Systems, is not adopted.** Gray water shall not be used for irrigation except as permitted by the department of health rules.

~~(Part II~~

**1613. Nonpotable Reuse Water Systems—General.**

(A) The provisions of Part II of this chapter shall apply to the installation, construction, alteration, and repair of non-

potable reuse water intended to supply uses such as water closets, urinals, and trap primers for floor drains, and floor sinks, irrigation, industrial processes, water features and other uses approved by the Authority Having Jurisdiction. Potable water supplied as makeup water in these systems shall be protected against back pressure and backsiphonage in accordance with Sections 602.0 and 603.0.

(B) No permit for any nonpotable reuse water system shall be issued until complete plumbing plans, with appropriate data satisfactory to the Authority Having Jurisdiction, have been submitted and approved. No changes or connections shall be made to either the nonpotable water system or the potable water system within any site containing a nonpotable reuse water system without approval by the Authority Having Jurisdiction.

(C) Before the building is occupied, the installer shall perform the initial cross-connection test in the presence of the Authority Having Jurisdiction and other authorities having jurisdiction. The test shall be ruled successful by the Authority Having Jurisdiction before final approval is granted.

(D) A nonpotable reuse water system shall be designed by a person registered or licensed to perform plumbing design work.

**1614.0 Definitions.** Nonpotable reuse water shall include the following:

**Reclaimed Water**—Water derived in any part from wastewater with a domestic wastewater component that has been adequately and reliably treated, so that it can be used for beneficial purposes. Reclaimed water is not considered a wastewater (RCW 90.46.010);

**Greywater or Gray Water**—Domestic type flows from bathtubs, showers, bathroom sinks, washing machines, dishwashers, and kitchen or utility sinks. Gray water does not include flow from a toilet or urinal (RCW 90.46.010); and

**Other nonpotable wastewater sources** from appliances and fixtures excluding wastewater streams containing black water.

~~For rainwater harvesting, see Part III.~~

**1615.0 Permit.** It shall be unlawful for any person to construct, install, alter, or cause to be constructed, installed, or altered any nonpotable reused water system within a building or on a premises without first obtaining a permit to do such work from the Authority Having Jurisdiction.

**1616.0 Drawings and Specifications.** The Authority Having Jurisdiction shall be permitted to require any or all of the following information to be included with or in the plot plan before a permit is issued for a nonpotable reused water system:

(A) A plot plan drawn to scale and completely dimensioned, showing lot lines and structures, location of present and proposed potable water supplies and meters, water wells, streams, auxiliary water supply and systems, nonpotable reused water supply and meters, drain lines, and locations of private sewage disposal systems and 100 percent expansion areas or building sewer connected to the public sewer.

(B) Details of construction including riser diagrams or isometrics and a full description of the complete installation;

including installation methods, construction, and materials as required by the Authority Having Jurisdiction. To the extent permitted by structural conditions, nonpotable reused water risers within the toilet room, including appurtenances such as air/vacuum relief valves, pressure reducing valves, etc., shall be installed in the opposite end of the room containing the served fixtures from the potable water risers or opposite walls, as applicable. To the extent permitted by structural conditions, nonpotable reused water headers and branches off risers shall not be run in the same wall or ceiling cavity of the toilet room where potable water piping is run.

(C) Detailed initial and annual testing requirements as outlined elsewhere in this chapter.

**1617.0 Pipe Material/Pipe Identification.** Nonpotable reused water systems shall comply with Sections 1617.1 and 1617.2.

**1617.1 Pipe Materials.** Reclaimed water and nonpotable water reuse pipe, valves and fittings shall conform to the requirements of Sections 604.0, 605.0 and 606.0.

**1617.2 Color and Information.**

**1617.2.1 Reclaimed Water.** Reclaimed water systems shall have a purple background with black uppercase lettering with the words "CAUTION: RECLAIMED WATER, DO NOT DRINK." The minimum size of the letters and length of the color field shall conform to Table 6-1. Where used, a colored identification band shall be indicated every twenty feet (6,096 mm) not less than once per room, and shall be visible from the floor level. Where concealed within construction, the piping shall be labeled on two opposing sides of the pipe within each stud or joist bay. Marking is not required for pipe manufactured with purple color integral to the pipe and marked with black uppercase lettering to read "CAUTION: NONPOTABLE RECLAIMED WATER, DO NOT DRINK" in intervals not to exceed five feet (1,524 mm). All valves, except fixture supply control valves shall be equipped with a locking feature. All mechanical equipment that is appurtenant to the reclaimed water system shall be painted purple.

**1617.2.2 Other Nonpotable Reused Water.** Except as noted in Section 1617.2.1, nonpotable water systems shall have a purple background with black uppercase lettering, with the words "CAUTION: NONPOTABLE WATER, DO NOT DRINK." Each nonpotable system shall be identified to designate the liquid being conveyed, and the direction of normal flow shall be clearly shown. The minimum size of the letters and length of the color field shall conform to Table 6-1.

The background color and required information shall be indicated every twenty feet but not less than once per room, and shall be visible from the floor level. Where concealed within construction, the piping shall be labeled on two opposing sides of the pipe within each stud or joist bay. All mechanical equipment that is appurtenant to the nonpotable reused water system shall be painted purple.

**1618.0 Installation.**

**1618.1 Collection Reservoir.** Nonpotable reuse water shall be collected in an approved reservoir constructed of durable, nonabsorbent and corrosion-resistant materials. The reservoir

shall be a closed and gas-tight vessel. Access openings shall be provided to allow inspection and cleaning of the reservoir interior. The reservoir shall be sized to limit the retention time of nonpotable reuse water to a maximum of seventy-two hours.

**1618.1.1 Filtration.** Nonpotable reuse water entering the reservoir shall pass through an approved filter such as a media, sand or diatomaceous earth filter.

**1618.1.2 Required Valve.** A full-open valve shall be installed downstream of the last fixture connection to the nonpotable reuse water discharge pipe before entering the required filter.

**1618.1.3 Overflow.** The collection reservoir shall be equipped with an overflow pipe of the same diameter as, or larger than, the influent pipe for the nonpotable reuse water. The overflow shall be indirectly connected to the sanitary drainage system.

**1618.1.4 Drain.** A drain shall be located at the lowest point of the collection reservoir and shall be indirectly connected to the sanitary drainage system. The drain shall be the same diameter as the overflow pipe required in Section 1618.1.3.

**1618.1.5 Disinfection.** Nonpotable reuse water shall be disinfected by an approved method that uses one or more disinfectants such as chlorine, iodine or ozone.

**1618.1.6 Makeup Water.** Potable water shall be supplied as a source of makeup water for nonpotable water systems that serve plumbing fixtures. The potable supply shall be protected against backflow in accordance with Chapter 6. A full-open valve shall be located on the makeup water supply line to the collection reservoir.

(A) Hose bibbs shall not be allowed on nonpotable reuse water piping systems.

(B) The nonpotable reuse water system and the potable water system within the building shall be provided with the required appurtenances (valves, air/vacuum relief valves, etc.) to allow for deactivation or drainage as required by this chapter for a cross-connection test in Section 1620.0.

(C) Nonpotable reuse water pipes shall not be run or laid in the same trench as potable water pipes. A ten foot (3,048 mm) horizontal separation shall be maintained between pressurized, buried reclaimed and potable water piping. Buried potable water pipes crossing pressurized nonpotable reuse water pipes shall be laid not less than twelve inches (305 mm) above the nonpotable reuse water pipes. Nonpotable reuse water pipes laid in the same trench or crossing building sewer or drainage piping shall be installed in compliance with Sections 609.0 and 720.0 of this code. Nonpotable reuse water pipes shall be protected similar to potable water pipes.

**1619.0 Signs.**

**1619.1 Commercial, Industrial and Institutional Room Entrance Signs.** In commercial, industrial, and institutional occupancies, all rooms using nonpotable reuse water for water closets and/or urinals shall be identified with signs. Each sign shall contain one-half inch (12.7 mm) letters of a highly visible color on a contrasting background. The location of the sign(s) shall be such that the sign(s) shall be visible

to all users. The number and location of the signs shall be approved by the Authority Having Jurisdiction and shall contain the following text:

**~~TO CONSERVE WATER,  
THIS BUILDING USES RECLAIMED WATER TO FLUSH TOILETS AND URINALS.~~**

**1619.2 Equipment Room Signs.** Each room containing nonpotable reuse water equipment shall have a sign posted with the following wording in one inch (25.4 mm) letters on a purple background:

**CAUTION  
NONPOTABLE RECLAIMED WATER, DO NOT DRINK.  
DO NOT CONNECT TO DRINKING WATER SYSTEM.  
NOTICE  
CONTACT BUILDING MANAGEMENT BEFORE PERFORMING ANY WORK ON THIS WATER SYSTEM.**

This sign shall be posted in a location that is visible to anyone working on or near nonpotable reuse water equipment.

**1619.3** Where water closets and/or urinals are flushed with nonpotable reuse water, the fixture shall be labeled:

**CAUTION  
TO CONSERVE WATER, THIS BUILDING USES NONPOTABLE RECLAIMED WATER TO FLUSH TOILETS AND URINALS**

**1619.4 Valve Access Door Signs.** Each nonpotable reuse water valve within a wall shall have its access door into the wall equipped with a warning sign approximately six inches by six inches (152 mm x 152 mm) with wording in one-half inch (12.7 mm) letters on a purple background. The size, shape, and format of the sign shall be substantially the same as that specified in subsection (B) above. The signs shall be attached inside the access door frame and shall hang in the center of the access door frame. This sign requirement shall be applicable to any and all access doors, hatches, etc., leading to nonpotable reuse water piping and appurtenances.

#### **1620.0 Inspection and Testing.**

**1620.1** Nonpotable reuse water piping shall be inspected and tested as outlined in this code for testing of potable water piping.

**1620.2** An initial and subsequent annual inspection and test shall be performed on both the potable and nonpotable reuse water systems. The potable and nonpotable reuse water systems shall be isolated from each other and independently inspected and tested to ensure there is no cross-connection as follows:

**1620.2.1 Visual Dual System Inspection.** Prior to commencing the cross-connection testing, a dual system inspection shall be conducted by the Authority Having Jurisdiction and other authorities having jurisdiction:

(i) Meter locations of the nonpotable reuse water and potable water lines shall be checked to verify that no modifications were made, and that no cross-connections are visible.

(ii) Pumps and equipment, equipment room signs, and exposed piping in the equipment room shall be checked.

(iii) Valves shall be checked to ensure that valve lock seals are still in place and intact. Valve control door signs shall be checked to verify that no signs have been removed.

**1620.2.2 Cross-Connection Test.** The following procedure shall be followed by the applicant in the presence of the Authority Having Jurisdiction and other authorities having jurisdiction to determine whether a cross-connection occurred:

(i) The potable water system shall be activated and pressurized. The nonpotable reuse water system shall be shut down and completely drained.

(ii) The potable water system shall remain pressurized for a minimum period of time specified by the Authority Having Jurisdiction while the nonpotable reuse water system is empty. The minimum period the nonpotable reuse water system is to remain depressurized shall be determined on a case-by-case basis, taking into account the size and complexity of the potable and nonpotable reuse water distribution systems, but in no case shall that period be less than one hour.

(iii) Fixtures, potable and reclaimed, shall be tested and inspected for flow. Flow from any nonpotable reuse water system outlet shall indicate a cross-connection. No flow from a potable water outlet would indicate that it is connected to the nonpotable reuse water system.

(iv) The drain on the nonpotable reuse water system shall be checked for flow during the test and at the end of the period.

(v) The potable water system shall then be completely drained.

(vi) The nonpotable reuse water system shall then be activated and pressurized.

(vii) The nonpotable reuse water system shall remain pressurized for a minimum period of time specified by the Authority Having Jurisdiction while the potable water system is empty. The minimum period the potable water system is to remain depressurized shall be determined on a case-by-case basis, but in no case shall that period be less than one hour.

(viii) Fixtures, potable and reclaimed, shall be tested and inspected for flow. Flow from any potable water system outlet shall indicate a cross-connection. No flow from a nonpotable reuse water outlet would indicate that it is connected to the potable water system.

(ix) The drain on the potable water system shall be checked for flow during the test and at the end of the period.

(x) If there is no flow detected in any of the fixtures that would have indicated a cross-connection, the potable water system shall be repressurized.

**1620.2.3 Cross-Connection Discovered.** The following procedure, in the presence of the Authority Having Jurisdiction, shall be activated immediately:

(i) Nonpotable reuse water piping to the building shall be shut down at the meter, and the nonpotable reuse water riser shall be drained.

(ii) Potable water piping to the building shall be shut down at the meter.

(iii) The cross-connection shall be uncovered and disconnected.

(iv) The building shall be retested following procedures listed in subsections (B)(1) and (2) above.

(v) The potable water system shall be chlorinated with fifty ppm chlorine for twenty-four hours.

(vi) The potable water system shall be flushed after twenty-four hours, and a standard bacteriological test shall be performed. If test results are acceptable, the potable water system shall be permitted to be recharged.

~~1620.3~~ An annual inspection of the nonpotable reuse water system, following the procedures listed in subsection 1620.0 (B)(1), shall be required. Annual cross-connection testing, following the procedures listed in subsection 1620.0 (B)(2), shall be required by the Authority Having Jurisdiction, unless site conditions do not require it. In no event shall the test occur less often than once in four years. Alternate testing requirements shall be permitted by the Authority Having Jurisdiction.

~~1621.0 Sizing.~~ Nonpotable reuse water piping shall be sized as outlined in this code for sizing potable water piping.

~~1622.0 Abandonment of Nonpotable Reuse Water Systems.~~ Where nonpotable reuse water systems are abandoned, the procedure for abandonment shall be as required by the Authority Having Jurisdiction. Components of the abandoned system, including, but not limited to, pipe, tubing, fittings and valves shall not be used for potable water systems.

### Part III

~~1623.0 Rainwater Harvesting Systems – General.~~ All components of the system not specifically addressed by the provisions of Part III of this chapter shall meet all applicable sections of this code, and any applicable manufacturer's installation instructions.

Engineered systems shall be installed per plans and specifications of the engineer of record.

~~1624.0 Scope.~~ Applications for rainwater harvesting are unique for each application. For this reason, each rainwater harvesting system proposed for use must be engineered and site specific and are subject to the approval of the Authority Having Jurisdiction. The requirement for the system to be engineered may be waived by the Authority Having Jurisdiction.

~~1624.1 Water Uses.~~ Harvested rainwater uses may include water closets, urinals, hose bibbs, industrial applications, and irrigation purposes. Other uses may be allowed when first approved by the Authority Having Jurisdiction.

~~1625.0 Definitions.~~ In addition to other definitions used in the Uniform Plumbing Code, the following definitions apply to rainwater harvesting systems.

~~1625.1 Auxiliary Supply.~~ The piping arranged and protected from contamination to provide an alternate means of filling a cistern.

~~1625.2 Cistern.~~ The central storage component of the rainwater harvesting system. Protection and maintenance of the cistern is essential for the health of the system.

~~1625.3 Debris Excluder.~~ A screen or other device installed on the gutter or downspout system to prevent the accumulation of leaves, needles, or other debris in the system.

~~1625.4 Flat.~~ Having a slope no greater than 1 in 50.

~~1625.5 Piping System.~~ The system of pipes that conveys the harvested rainwater and distributes it to various fixtures.

~~1625.6 Prefiltration.~~ A device to mechanically remove sediment and debris.

~~1625.7 Pump or Pressure System.~~ The mechanical device necessary to distribute the harvested rainwater from the cistern to the designated fixtures.

~~1625.8 Rainwater Harvesting System (RWS).~~ A cistern(s), pipe, fittings, pumps and other plumbing appurtenances required for and/or used to harvest and distribute rainwater.

~~1625.9 Return Elbow.~~ A section of pipe with a 180-degree bend.

~~1625.10 Roof Drainage System.~~ The roof drains, overflow drains, scuppers, gutters and downspouts used to convey the rainwater from the roof surface to the system.

~~1625.11 Roof Surface.~~ The surface rainwater harvesting systems rely on for the collection of rainwater that has fallen on a building roof.

~~1625.12 Roof Wash or Roof Washer.~~ A device or method for removal of sediment and debris from collected roof water by diverting initial rainfall from entry into the cistern(s).

~~1625.13 Screen.~~ Corrosion resistant wire or other approved mesh having openings in determined sizes.

~~1625.14 Slope or Sloping.~~ Having a slope greater than 1 in 50.

~~1625.15 Transfer Pump.~~ The mechanical device to transfer collected water from downspouts to remote cistern(s).

~~1626.0 Permit.~~ It shall be unlawful for any person to construct, install, alter, or cause to be constructed, installed, or altered any rainwater harvesting system within a building or on a premises without first obtaining a permit to do such work from the Authority Having Jurisdiction.

In addition to the permits required by this Code, the following additional permits may be required for the installation of a rainwater harvesting system: An electrical permit for the pump or other electrical controls; a building permit for cistern footings, foundations, enclosures and roof structures; a grading permit may be necessary for underground tanks. In addition, contact your regional office of the department of ecology regarding a registration form.

~~1626.1 Application.~~ The following information must be provided with each permit application for a rainwater harvesting system:

1. Site or plot plan, including site elevations.
2. A diagram of the rainwater harvesting system (including piping and equipment) and domestic potable water systems, including sizing and dimensions.
3. Specifications and manufacturer's installation instructions for cistern(s), pump(s), filtration and/or disinfection, and roof washing or pre-filtration system(s).
4. Engineering. Installation, including, but not limited to, the following systems, will require structural engineering:

Cisterns that are located on top of a building structure or cisterns that are located on sloping sites.

Information in addition to that listed above may be necessary in some instances. The size and complexity of the building, site and system will determine the necessity for additional information.

**1627.0 General Provisions.** A rainwater harvesting system begins at the point of collection and terminates as waste after the water collected has been used in plumbing fixtures, industrial applications, or used for irrigation purposes. The parts of the collection and distribution system include the roof surface, gutters and downspouts, roof washer, cistern, pump and the piping system.

**1627.1 Collection System.** Rainwater shall only be harvested from roof surfaces. Harvest shall not occur from the following locations:

1. Any vehicular or pedestrian area;
2. Surface water runoff; or
3. Bodies of standing water.

**1627.2 Collection Pretreatment.** Rainwater harvested from roof surfaces shall be pretreated by either a roof washing system or other filtration system of no more than 50 microns. The quantity of the first flush generated by the rainwater harvesting system during any rain event shall be calculated as the first 0.02 inch of rainfall per 24-hour period per square foot of roof area and shall be diverted away from the cistern. Discharge of any diverted water shall go to a location approved by the Administrative Authority.

EXCEPTIONS:

1. A first flush is not required where a post storage filtration or treatment system is installed and approved by the Administrative Authority.
2. A first flush is not required for systems used exclusively for irrigation purposes.

### 1628.0 System Components:

**1628.1 Roof Surface.** The roof surface may be constructed of any material accepted by the Administrative Authority.

EXCEPTION: Copper, zinc or lead roofing materials shall not be used.

**1628.2 Roof Drainage System.** Gutters and downspouts used to collect rainwater shall comply with the following:

1. Gutters and downspouts may be manufactured of any material. Gutter and downspout materials are not required to meet material specifications found in the Uniform Plumbing Code.

EXCEPTION: Copper or zinc gutters and downspouts shall not be used. If existing gutters and downspouts are already in place, the interior shall be coated with a NSF-quality epoxy paint.

2. Gutter and downspout systems leading to the cistern shall be fitted with debris excluders.

**1628.3 Roof Washers and Prefiltration.** All rainwater harvesting systems using impervious roof surfaces shall have at least one roof washer per downspout or prefiltration system. A roof washer or prefiltration system is not required for pervious roof surfaces such as green roofs. Roof washers and prefiltration systems shall meet the following design requirements.

**1628.3.1** All collected rainwater shall pass through a roof washer or prefiltration system before the water enters the cistern(s).

**1628.3.2** If more than one cistern is used, a roof washer or prefiltration system shall be provided for each cistern.

EXCEPTION: Where a series of cisterns are interconnected to supply water to a single system.

**1628.3.3** The following requirements apply to all roof washers:

**1628.3.3.1** The inlet to the roof washer shall be provided with a debris screen that protects the roof washer from the intrusion of waste and vermin.

**1628.3.3.2** The roof washer shall rely on manually operated valves or other devices to do the diversion.

**1628.3.3.8** Roof washers shall be readily accessible for regular maintenance.

**1628.3.4** Prefiltration screens or filters shall be maintained consistent with manufacturer's specifications.

**1628.4 Cisterns.** The following are the minimum requirements for cisterns.

#### 1628.4.1 General:

**1628.4.1.1** All cisterns shall be listed for use with potable water.

**1628.4.1.2** Cisterns shall be capable of being filled from both the rainwater harvesting system and the public or private water system.

**1628.4.1.3** The municipal or on-site well water system shall be protected from cross-contamination in accordance with Section 603.4.5.

**1628.4.1.4** Backflow assemblies shall be maintained and tested in accordance with Section 603.3.3.

**1628.4.1.5** Cisterns may be used as storm water collection points that help to minimize flood damage, while providing a reservoir for later use.

**1628.4.1.6** Cisterns shall have access to allow inspection and cleaning.

**1628.4.2 Size.** Any cistern, or combination of cisterns used, shall be sized adequately for the intended use of the water.

**1628.4.2.1** For above grade cisterns, the ratio of the cistern size shall not be greater than 1:1 height to width, provided that for an engineered tank with an engineered foundation, the height may exceed the width, subject to approval of the Authority Having Jurisdiction. The ratio for below grade cisterns is not limited.

**1628.4.3 Location.** Cisterns may be installed either above or below grade. All cisterns shall be installed in accordance with the manufacturer's installation instructions. Where the installation requires a foundation, the foundation shall be flat and shall be capable of supporting the cistern weight when the cistern is full.

**1628.4.3.1 Below Grade Cisterns.** Below grade cisterns shall be provided with manhole risers a minimum of 8 inches above surrounding grade. Underground cisterns shall have tie-downs per manufacturer's specifications, or the excavated site must have a daylight drain or some other drainage mechanism to prevent floating of the cistern resulting from elevated groundwater levels.

**1628.4.4 Protection.** Cisterns shall be protected from sunlight to inhibit algae growth and ensure life expectancy of tank.

**1628.4.5 Inlets, Outlets and Openings.** All cistern openings shall be protected from unintentional entry by humans or vermin. Manhole covers shall be provided and shall be secured to prevent tampering. Where an opening is provided that could allow the entry of personnel, the opening shall be marked, "DANGER - CONFINED SPACE."

Cistern outlets shall be located at least 4 inches above the bottom of the cistern.

**1628.4.6 Overflow.** The cistern shall be equipped with an overflow device.

**1628.4.6.1** The overflow device shall consist of a pipe equal to or greater than the cistern inlet and a minimum of 4 inches below any makeup device from other sources.

**1628.4.6.2** The overflow outlet shall be protected with a screen having openings no greater than 0.25 inches or a self-sealing cover.

**1628.4.6.3** The Authority Having Jurisdiction shall approve the discharge location of the overflow water.

**1628.5 Pump.** Where a pump is provided in conjunction with the rainwater harvesting system, the pump shall meet the following provisions:

**1628.5.1** The pump and all other pump components shall be listed and approved for use with potable water systems.

**1628.5.2** The pump shall be capable of delivering a minimum of 15 psi residual pressure at the highest outlet served. Minimum pump pressure shall allow for friction and other pressure losses. Maximum pressures shall not exceed 80 psi.

#### **1628.6 Piping.**

**1628.6.1** There shall be no direct connection of any rainwater harvesting pipe system and any domestic potable water pipe system.

**1628.6.2 Materials.** Pipe used to convey harvested rainwater shall be identified per Section 601.2 and Table 6-1. Fittings and other system components shall be listed for use in conjunction with specified piping. Both piping and fittings shall be installed as required by applicable code and standards.

**1628.6.2.1** All other products entering into the construction of a rainwater harvesting system shall be listed as required by code for the purpose intended, and suitable for use in a potable water system.

**1628.6.3 Color and Information.** All rainwater pipe shall have a purple background with black uppercase lettering, with the words "CAUTION: NONPOTABLE RAINWATER, DO

NOT DRINK" every twenty feet along its length, but in no case less than once per room, and shall be visible from the floor level. The minimum size of the letters and the length of the color field shall conform to Table 6-1. Where concealed within construction, the piping shall be labeled on two opposing sides of the pipe within each stud or joist bay. All mechanical equipment that is appurtenant to the nonpotable rainwater system shall be painted purple.

#### **1629.0 Signs.**

**1629.1 Commercial, Industrial and Institutional Room Entrance Signs.** In commercial, industrial, and institutional occupancies, all rooms using nonpotable reuse water for water closets and/or urinals shall be identified with signs. Each sign shall contain one-half inch (12.7 mm) letters of a highly visible color on a contrasting background. The location of the sign(s) shall be such that the sign(s) shall be visible to all users. The number and location of the signs shall be approved by the Authority Having Jurisdiction and shall contain the following text:

**TO CONSERVE WATER,  
THIS BUILDING USES RAINWATER TO FLUSH TOILETS AND  
URINALS.**

**1629.2 Equipment Room Signs.** Each room containing nonpotable rainwater equipment shall have a sign posted with the following wording in one inch (25.4 mm) letters on a purple background:

**CAUTION  
NONPOTABLE RAINWATER, DO NOT DRINK,  
DO NOT CONNECT TO DRINKING WATER SYSTEM.  
NOTICE  
CONTACT BUILDING MANAGEMENT  
BEFORE PERFORMING ANY WORK ON THIS WATER SYSTEM.**

This sign shall be posted in a location that is visible to anyone working on or near nonpotable reuse water equipment.

**1629.3** Every water closet or urinal supply, hose bibb or irrigation outlet shall be permanently identified with an indelibly marked placard stating:

**CAUTION  
NONPOTABLE RAINWATER, DO NOT DRINK**

#### **1630.0 Inspection and Testing.**

(A) Rainwater harvesting systems shall be inspected and tested as outlined in this code for testing of potable water piping.

(B) An initial inspection and test shall be performed on both the potable and rainwater harvesting systems. The potable and rainwater system shall be isolated from each other and independently inspected and tested to ensure there is no cross-connection.

**1631.0 System Maintenance.** Rainwater harvesting systems shall be maintained in functioning order for the life of the system. It is the property owner's responsibility to maintain the system until the system is abandoned as prescribed in this code.



~~**1632.0 System Abandonment.** If the owner of a rainwater harvesting system elects to cease use of, or fails to properly maintain such system, they shall abandon the system. To abandon the system one shall:~~

- ~~1. Remove the system entirely; and~~
- ~~2. Replace the rainwater harvesting pipe system with an approved potable water supply pipe system. Where an existing potable pipe system is already in place, fixtures may be reconnected to the existing system.~~

~~Rainwater harvesting system abandonment and potable water installations require permit, inspection(s) and approval(s).)~~ **1604.1 General.** The provisions of this section shall apply to the installation, construction, alteration, and repair of on-site treated nonpotable water systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, and other uses approved by the authority having jurisdiction.

#### NEW SECTION

**WAC 51-56-1700 Chapter 17—Nonpotable rainwater catchment systems.**

#### **1702.0 Nonpotable Rainwater Catchment Systems.**

**1702.1 General.** The installation, construction, alteration, and repair of rainwater catchments systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, irrigation, industrial processes, water features, cooling tower makeup and other uses shall be approved by the authority having jurisdiction.

EXCEPTION: Exterior irrigation piping.

#### NEW SECTION

**WAC 51-56-90700 Installation Standard 7-03—Polyethylene cold water building supply and yard piping.**

**2.6.1 Location.** Polyethylene piping may terminate within a building or structure. The connection to the potable water distribution system shall be accessible, except that it may be buried underground outside of the building or structure in an accessible location. Barbed insert fittings with hose clamps are prohibited within a building.

#### NEW SECTION

**WAC 51-56-90800 Installation Standard 8-03—PVC cold water building supply and yard piping.**

**2.7.1 Location.** PVC piping may terminate within a building or structure. The connection to the potable water distribution system shall be accessible, except that it may be buried underground outside of the building or structure in an accessible location.

#### NEW SECTION

**WAC 51-56-92000 Installation Standard 20-2010—CPVC solvent cemented hot and cold water distribution systems.**

**2.1.2 Primer.** Listed primers shall be used that are compatible with the type of listed CPVC cement and pipe used. The primer shall be a true solvent for CPVC, containing no slow-drying ingredient. Cleaners shall not be allowed to be used as a substitute or equivalent for a listed primer.

EXCEPTION: Listed solvent cements that do not require the use of primer shall be permitted for use with CPVC pipe and fittings, manufactured in accordance with ASTM D2845, 1/2 inch through 2 inches in diameter.

#### REPEALER

The following chapter of the Washington Administrative Code is repealed:

WAC 51-57-001	Authority.
WAC 51-57-002	Purpose.
WAC 51-57-003	Uniform Plumbing Code Standards.
WAC 51-57-004	Conflicts between Appendix I and the manufacturer's installation instructions.
WAC 51-57-007	Exceptions.
WAC 51-57-008	Implementation.
WAC 51-57-202000	Installation Standard 20-200—CPVC solvent cemented hot and cold water distribution systems.
WAC 51-57-790000	Installation Standard 7-03—Polyethylene cold water building supply and yard piping.
WAC 51-57-895000	Installation Standard 8-03—PVC cold water building supply and yard piping.

#### **WSR 12-16-083**

#### **PROPOSED RULES**

#### **BUILDING CODE COUNCIL**

[Filed July 31, 2012, 3:29 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-03-106.

Title of Rule and Other Identifying Information: Adoption and amendment of the 2012 International Mechanical Code (IMC), chapter 51-52 WAC.

Hearing Location(s): Center Place Event Center, 2426 North Discovery Place, Spokane Valley, WA 99216, on September 14, 2012, at 10 a.m.; and at the DES Presentation Room, 1500 Jefferson S.E., Olympia, WA 98504, on September 21, 2012, at 10 a.m.

Date of Intended Adoption: November 9, 2012.

Submit Written Comments to: Ray Allshouse, Chair, State Building Code Council (SBCC), P.O. Box 41449,

Olympia, WA 98504-1449, e-mail sbcc@ga.wa.gov, fax (360) 586-9088, by September 21, 2012.

Assistance for Persons with Disabilities: Contact Peggy Bryden by September 7, 2012, (360) 407-9280.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules adopt the most recently published edition of the IMC and make changes to the state amendments to this code.

**Summary of Changes to Existing Rules:**

1. References to various codes were updated to the most recent editions.

2. Section 102.4 was amended to exempt additions of 500 square feet or less from the whole house ventilation requirements in keeping with the previous Ventilation and Indoor Air Quality Code.

3. Existing definitions for source specific ventilation and unusually tight construction were deleted as they are no longer terms referenced by the code. A definition of local exhaust was added from the International Residential Code (IRC). This term is replacing source specific ventilation throughout the code.

4. IMC Section 303.3 and International Fuel Gas Code (IFGC) Section 401.9 were amended to allow alternate identification of manufacturer for fittings and pipe nipples.

5. Section 306.5 was updated with revised language found in the 2012 edition of the IMC.

6. Section 307.2.3 was amended to clarify that unducted fan coil units without factory-installed water-level detection devices are allowed if they mounted directly in the occupied space.

7. Table 403.3 was modified to include values and updates from the 2012 IMC and also includes additional categories from ASHRAE 62.1. Footnote g was revised to clarify that recirculation of air from the indicated categories cannot be recirculated. Footnote i was modified to clarify when a laundry area required additional local exhaust. Footnote j was added to note that additional ventilation was required if combustion equipment is used in a stadium or arena.

8. An exception was added to Section 403.8.2 to exempt continuous central ventilation systems for high rise residential/hotel occupancies from requiring individual controls within the units.

9. The table for calculating intermittent whole house ventilation rates was replaced with the table found in the 2012 IRC.

10. Section 403.8.5.2 was amended to exempt continuously operating systems from the requirement for motorized dampers.

11. Section 403.8.6.1 was amended to clarify that outdoor air inlets in accessible dwelling units are required to be accessible. Requirements for ventilating adjoining spaces were also clarified.

12. The amendment to Section 501.2 was deleted for consistency with the IRC.

13. An exception was added to Section 501.4 to clarify that residential units are exempt from the pressure equalization requirements.

14. New section 504.7.1 was added to require dryer duct protection for commercial dryers as well as residential dryers. This same requirement was also added to the IFGC.

15. Section 504.8 was amended to clarify when makeup air is required.

16. Section 503.3 was reorganized in the 2012 IMC.

17. Section 507.2.3 was modified to include allowances for a residential kitchen hood to be used in limited nonresidential locations.

18. Section 605.4 was added to require a moderate filter at air handlers.

19. Section 928.1 was amended for consistency with the Uniform Plumbing Code.

20. The existing state amendment to Chapter 10 was deleted and replaced with a reference to L&I's boiler rules under item 7 in Section 1001.1, to allow local jurisdictions to inspect residential boilers exempt from L&I inspection.

Reasons Supporting Proposal: RCW 19.27.031 and 19.27.074.

Statutory Authority for Adoption: RCW 19.27.031 and 19.27.074.

Statute Being Implemented: Chapters 19.27 and 34.05 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: The council is seeking comments on the issues proposed in the rules shown below.

Name of Proponent: SBCC, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Krista Braaksma, 1500 Jefferson S.E., P.O. Box 41449, Olympia, WA, (360) 407-9278.

No small business economic impact statement has been prepared under chapter 19.85 RCW. As part of the review process, the technical advisory group (TAG) examined all changes in the mechanical code and found no items with a disproportional impact on small businesses. One change to the model code was reviewed and showed the potential for an increased cost and was mitigated by allowing an alternate means of identifying the manufacturer on pipes and fittings.

The SBCC is not one of the agencies identified as required to prepare a school district impact statement.

A cost-benefit analysis is not required under RCW 34.05.328. The SBCC is not one of the agencies identified as required to prepare an analysis.

July 31, 2012

C. Ray Allshouse  
Council Chair

**Chapter 51-52 WAC**

**STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE ((2009)) 2012 EDITION OF THE INTERNATIONAL MECHANICAL CODE**

AMENDATORY SECTION (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-003 International Mechanical Code.** The ((2009)) 2012 edition of the *International Mechanical Code* published by the International Code Conference is hereby

adopted by reference with the exceptions noted in this chapter of the Washington Administrative Code (WAC).

**AMENDATORY SECTION** (Amending WSR 04-01-104, filed 12/17/03, effective 7/1/04)

**WAC 51-52-004 Conflict between International Mechanical Code and State Energy Code chapter 51-11C WAC.** In the case of conflict between the duct sealing or insulation requirements of Section 603 or Section 604 of this code and the duct sealing or insulation requirements of chapter 51-11C WAC, the Washington State Energy Code, or where applicable, a local jurisdiction's energy code, the provisions of such energy codes shall govern.

**AMENDATORY SECTION** (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-008 Implementation.** The International Mechanical Code adopted by chapter 51-52 WAC shall become effective in all counties and cities of this state on July 1, ~~((2010))~~ 2013.

**AMENDATORY SECTION** (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0101 Section 101—General.**

**101.2 Scope.** This code shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings. This code shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed herein. The installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be regulated by the *International Fuel Gas Code*.

EXCEPTIONS:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the *International Residential Code*.
2. The standards for liquefied petroleum gas installations shall be the ~~((2008))~~ 2011 Edition of NFPA 58 (Liquefied Petroleum Gas Code) and the ~~((2009))~~ 2012 Edition of ANSI Z223.1/NFPA 54 (National Fuel Gas Code).

**NEW SECTION**

**WAC 51-52-0102 Section 102—Applicability.**

**102.4 Additions, alterations or repairs.** Additions, alterations, renovations or repairs to a mechanical system shall conform to that required for a new mechanical system without requiring the existing mechanical system to comply with all of the requirements of this code. Additions, alterations or repairs shall not cause an existing mechanical system to become unsafe, hazardous or overloaded. Minor additions, alterations, renovations and repairs to existing mechanical systems shall meet the provisions for new construction, unless such work is done in the same manner and arrange-

ment as was in the existing system, is not hazardous and is *approved*.

EXCEPTION: Additions, alterations, renovations or repairs to a mechanical system that is part of a building addition with less than 500 square feet of conditioned floor area are exempt from the requirements for whole house ventilation systems, Section 403.8.5.

**AMENDATORY SECTION** (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0202 Section 202—General definitions.**

~~((SOURCE SPECIFIC VENTILATION. A mechanical ventilation system including all fans, controls, and ducting, which is dedicated to exhausting contaminant-laden air to the exterior of the building from the room or space in which the contaminant is generated.~~

~~UNUSUALLY TIGHT CONSTRUCTION. Construction meeting the following requirements:~~

~~1. Walls exposed to the outdoor atmosphere having a continuous water vapor retarder with a rating of 1 perm ( $57 \text{ ng/s}\cdot\text{m}^2\cdot\text{Pa}$ ) or less with openings gasketed or sealed; and~~

~~2. Operable windows and doors meeting the air leakage requirements of the *International Energy Conservation Code*, Section 502.1.4; and~~

~~3. Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines, and at other openings; or~~

~~4. Buildings built in compliance with the 1986 or later editions of the Washington State Energy Code, chapter 51-11 WAC, Northwest Energy Code, or Super Good Cents weatherization standards or equivalent.))~~ **LOCAL EXHAUST.** An exhaust system that uses one or more fans to exhaust air from a specific room or rooms within a dwelling.

**WHOLE HOUSE VENTILATION SYSTEM.** A mechanical ventilation system, including fans, controls, and ducts, which replaces, by direct or indirect means, air from the habitable rooms with *outdoor air*.

**NEW SECTION**

**WAC 51-52-0303 Section 303—Equipment and appliance location.**

**303.3 Identification.** Each length of pipe and tubing and each pipe fitting utilized in a mechanical system shall bear the identification of the manufacturer.

EXCEPTION: The manufacturer identification for fittings and pipe nipples shall be on each piece or shall be printed on the fitting or nipple packaging or provided documentation.

AMENDATORY SECTION (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0306 Section 306—Access and service space.**

**306.5 Equipment and appliances on roofs or elevated structures.** Where equipment requiring access (~~((and))~~) or appliances are (~~((installed on roofs or elevated structures at a height exceeding))~~) located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access such equipment or appliances. (~~((such access shall be provided by a permanent approved means of access, the extent of which shall be from grade or floor level to the equipment and appliances' level service space))~~) an interior or exterior means of access shall be provided. Such access shall not require climbing over obstructions greater than 30 inches (762 mm) high or walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33 percent slope). Such access shall not require the use of portable ladders. Where access involves climbing over parapet walls, the height shall be measured to the top of the parapet wall.

Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:

1. The side railing shall extend above the parapet or roof edge not less than 42 inches (1067 mm).
2. Ladders shall have rung spacing not to exceed 12 inches (305 mm) on center. The uppermost rung shall be a maximum of 24 inches below the upper edge of the roof hatch, roof or parapet, as applicable.
3. Ladders shall have a toe spacing not less than 7 inches (178 mm) deep.
4. There shall be a minimum of 18 inches (457 mm) between rails.
5. Rungs shall have a minimum 0.75-inch (19 mm) diameter and be capable of withstanding a 300-pound (136.1 kg) load.
6. Ladders over 30 feet (9144 mm) in height shall be provided with offset sections and landings capable of withstanding 100 pounds (488.2 kg/m<sup>2</sup>) per square foot.
7. Climbing clearances. The distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder shall be a minimum of 30 inches measured perpendicular to the rungs. This distance shall be maintained from the point of ladder access to the bottom of the roof hatch. A minimum clear width of 15 inches shall be provided on both sides of the ladder measured from the midpoint of and parallel with the rungs except where cages or wells are installed.
8. Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches by 30 inches centered in front of the ladder.
9. Ladders shall be protected against corrosion by approved means.
10. Access to ladders shall be provided at all times.

Catwalks installed to provide the required access shall be not less than 24 inches (610 mm) wide and shall have railings as required for service platforms.

EXCEPTION: This section shall not apply to Group R-3 occupancies.

NEW SECTION

**WAC 51-52-0307 Section 307—Condensate disposal.**

**307.2.3 Auxiliary and secondary drain systems.** In addition to the requirements of Section 307.2.1, where damage to any building components could occur as a result of overflow from the *equipment* primary condensate removal system, one of the following auxiliary protection methods shall be provided for each cooling coil or fuel-fired *appliance* that produces condensate:

1. An auxiliary drain pan with a separate drain shall be provided under the coils on which condensation will occur. The auxiliary pan drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The pan shall have a minimum depth of 1 1/2 inches (38 mm), shall not be less than 3 inches (76 mm) larger than the unit or the coil dimensions in width and length and shall be constructed of corrosion-resistant material. Galvanized sheet steel pans shall have a minimum thickness of not less than 0.0236 inch (0.6010 mm) (No. 24 gage). Non-metallic pans shall have a minimum thickness of not less than 0.0625 inch (1.6 mm).
2. A separate overflow drain line shall be connected to the drain pan provided with the *equipment*. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection.
3. An auxiliary drain pan without a separate drain line shall be provided under the coils on which condensate will occur. Such pan shall be equipped with a water-level detection device conforming to UL 508 that will shut off the *equipment* served prior to overflow of the pan. The auxiliary drain pan shall be constructed in accordance with Item 1 of this section.
4. A water-level detection device conforming to UL 508 shall be provided that will shut off the *equipment* served in the event that the primary drain is blocked. The device shall be installed in the primary drain line, the overflow drain line, or in the equipment-supplied drain pan, located at a point higher than the primary drain line connection and below the overflow rim of such pan.

EXCEPTIONS:

1. Fuel-fired appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system.
2. Unducted fan coil units where there is no factory option available for water-level detection devices and are installed directly within the occupied space.

AMENDATORY SECTION (Amending WSR 12-07-020, filed 3/12/12, effective 4/12/12)

**WAC 51-52-0403 Section 403—Mechanical ventilation.**

**403.2 Outdoor air required.** The minimum ventilation rate of *outdoor air* shall be determined in accordance with Section 403.3.

- EXCEPTIONS:
1. Where the registered design professional demonstrates that an engineered ventilation system design will prevent the maximum concentration of contaminants from exceeding that obtainable by the rate of *outdoor air* ventilation determined in accordance with Section 403.3, the minimum required rate of *outdoor air* shall be reduced in accordance with such engineered system design.
  2. Alternate systems designed in accordance with ASHRAE Standard 62.1 Section 6.2, Ventilation Rate Procedure, shall be permitted.

**403.2.1 Recirculation of air.** The air required by Section 403.3 shall not be recirculated. Air in excess of that required by Section 403.3 shall not be prohibited from being recirculated as a component of supply air to building spaces, except that:

1. Ventilation air shall not be recirculated from one dwelling to another or to dissimilar occupancies.
2. Supply air to a swimming pool and associated deck areas shall not be recirculated unless such air is dehumidified to maintain the relative humidity of the area at 60 percent or less. Air from this area shall not be recirculated to other spaces where 10 percent or more of the resulting supply air-stream consists of air recirculated from these spaces.

3. Where mechanical exhaust is required by Note b in Table 403.3, recirculation of air from such spaces shall be prohibited. All air supplied to such spaces shall be exhausted, including any air in excess of that required by Table 403.3. (Item 4 is not adopted.)

**403.3 Outdoor airflow rate.** Ventilation systems shall be designed to have the capacity to supply the minimum outdoor airflow rate determined in accordance with this section. The occupant load utilized for design of the ventilation system shall not be less than the number determined from the estimated maximum occupant load rate indicated in Table 403.3. Ventilation rates for occupancies not represented in Table 403.3 shall be those for a listed occupancy classification that is most similar in terms of occupant density, activities and building construction; or shall be determined by an approved engineering analysis. The ventilation system shall be designed to supply the required rate of ventilation air continuously during the period the building is occupied, except as otherwise stated in other provisions of the code.

With the exception of smoking lounges, the ventilation rates in Table 403.3 are based on the absence of smoking in occupiable spaces. Where smoking is anticipated in a space other than a smoking lounge, the ventilation system serving the space shall be designed to provide ventilation over and above that required by Table 403.3 in accordance with accepted engineering practice.

EXCEPTION: Where occupancy density is known and documented in the plans, the outside air rate may be based on the design occupant density. Under no circumstance shall the occupancies used result in outside air less than one-half that resulting from application of Table 403.3 estimated maximum occupancy rates.

**Table 403.3  
REQUIRED OUTDOOR VENTILATION AIR**

<del>((Occupancy Classification</del>	<del>People Outdoor Airflow Rate in Breathing Zone cfm/Person</del>	<del>Area Outdoor Airflow Rate in Breathing Zone R<sub>a</sub> cfm/ft<sup>2a</sup></del>	<del>Default Occupant Density #/1000 ft<sup>2a</sup></del>	
<b>Correctional facilities</b>				
Cells				
without plumbing fixtures	5	0.12	25	—
with plumbing fixtures	5	0.12	25	1.0
Dining halls (see food and beverage service)	—	—	—	—
Guard stations	5	0.06	15	—
Day room	5	0.06	30	—
Booking/waiting	7.5	0.06	50	—
<b>Dry cleaners, laundries</b>				
Coin-operated dry cleaner	15	—	20	—
Coin-operated laundries	7.5	0.06	20	—
Commercial dry cleaner	30	—	30	—
Commercial laundry	25	—	10	—
Storage, pick up	7.5	0.12	30	—
<b>Education</b>				
Art classroom	10	0.18	20	0.7
Auditoriums	5	0.06	150	—
Classrooms (ages 5-8)	10	0.12	25	—
Classrooms (ages 9 plus)	10	0.12	35	—
Computer lab	10	0.12	25	—

<b>((Occupancy Classification</b>	<b>People Outdoor Airflow Rate in Breathing Zone cfm/Person</b>	<b>Area Outdoor Airflow Rate in Breathing Zone R<sub>a</sub> cfm/ft<sup>2a</sup></b>	<b>Default Occupant Density #/1000 ft<sup>2a</sup></b>	
Corridors (see public spaces)	—	—	—	—
Day care (through age 4)	10	0.18	25	—
Lecture classroom	7.5	0.06	65	—
Lecture hall (fixed seats)	7.5	0.06	150	—
Locker/dressing room	—	—	—	0.25
Media center	10	0.12	25	—
Multiuse assembly	7.5	0.06	100	—
Music/theater/dance	10	0.06	35	—
Science laboratories	10	0.18	25	1.0
Smoking lounges <sup>b</sup>	60	—	70	—
Sports locker rooms	—	—	—	0.5
Wood/metal shops	10	0.18	20	0.5
<b>Food and beverage service</b>				
Bars, cocktail lounges	7.5	0.18	100	—
Cafeteria, fast food	7.5	0.18	100	—
Dining rooms	7.5	0.18	70	—
Kitchens (cooking) <sup>b</sup>	—	—	—	0.7
<b>Hospitals, nursing and convalescent homes</b>				
Autopsy rooms <sup>b</sup>	—	—	—	0.5
Medical procedure rooms	15	—	20	—
Operating rooms	30	—	20	—
Patient rooms	25	—	10	—
Physical therapy	15	—	20	—
Recovery and ICU	15	—	20	—
<b>Hotels, motels, resorts and dormitories</b>				
Multipurpose assembly	5	0.06	120	—
Bathrooms/toilet— private	—	—	—	25/50 <sup>f</sup>
Bedroom/living room	5	0.06	10	—
Conference/meeting	5	0.06	50	—
Dormitory sleeping areas	5	0.06	20	—
Gambling casinos	7.5	0.18	120	—
Kitchens	—	—	—	25/100 <sup>f</sup>
Lobbies/prefunction	7.5	0.06	30	—
<b>Offices</b>				
Conference rooms	5	0.06	50	—
Office spaces	5	0.06	5	—
Reception areas	60	0.06	30	—
Telephone/data entry	5	0.06	60	—
Main entry lobbies	5	0.06	10	—
<b>Private dwellings, single and multiple</b>				
Garages, common for multiple units <sup>b</sup>	—	—	—	0.75
Garages, separate for each dwelling <sup>b</sup>	—	—	—	100 cfm per car
Kitchens <sup>b</sup>	—	—	—	25/100 <sup>f</sup>
Living areas <sup>c</sup>	See Tables 403.8.5.1 and 403.8.5.2	—	Based on the number of bedrooms. First bedroom: 2; each additional bedroom, 1	—
Toilet rooms, bathrooms and laundry areas <sup>d</sup>	—	—	—	20/50 <sup>f</sup>

<b>((Occupancy Classification</b>	<b>People Outdoor Airflow Rate in Breathing Zone cfm/Person</b>	<b>Area Outdoor Airflow Rate in Breathing Zone R<sub>a</sub> cfm/ft<sup>2a</sup></b>	<b>Default Occupant Density #/1000 ft<sup>2a</sup></b>	
<b>Public spaces</b>				
Corridors	—	0.06	—	—
Elevator car	—	—	—	1.0
Shower room (per shower head)	—	—	—	50/20 <sup>f</sup>
Smoking lounges <sup>b</sup>	60	—	70	—
Toilet rooms—public	—	—	—	50/70 <sup>e</sup>
Places of religious worship	5	0.06	120	—
Courtrooms	5	0.06	70	—
Legislative chambers	5	0.06	50	—
Libraries	5	0.12	10	—
Museums (children's)	7.5	0.12	40	—
Museums/galleries	7.5	0.06	40	—
<b>Retail stores, sales floors and show-room floors</b>				
Sales (except as below)	7.5	0.12	15	—
Dressing rooms	—	—	—	0.25
Mall common areas	7.5	0.06	40	—
Shipping and receiving	—	0.12	—	—
Smoking lounges <sup>b</sup>	60	—	70	—
Storage rooms	—	0.12	—	—
Warehouses (see storage)	—	—	—	—
<b>Specialty shops</b>				
Automotive motor fuel dispensing stations <sup>b</sup>	—	—	—	1.5
Barber	7.5	0.06	25	0.5
Beauty and nail salons <sup>b,h</sup>	20	0.12	25	0.6
Embalming room <sup>b</sup>	—	—	—	2.0
Pet shops (animal areas) <sup>b</sup>	7.5	0.18	10	0.9
Supermarkets	7.5	0.06	8	—
<b>Sports and amusement</b>				
Disco/dance floors	20	0.06	100	—
Bowling alleys (seating areas)	10	0.12	40	—
Game arcades	7.5	0.18	20	—
Ice arenas, without combustion engines	—	0.30	—	0.5
Gym, stadium arena (play area)	—	0.30	—	—
Spectator areas	7.5	0.06	150	—
Swimming pools (pool and deck area)	—	0.48	—	—
Health club/aerobics room	20	0.06	40	—
Health club/weight room	20	0.06	10	—
<b>Storage</b>				
Repair garages, enclosed parking garage <sup>b,d</sup>	—	—	—	0.75
Warehouses	—	0.06	—	—
<b>Theaters</b>				
Auditoriums (see education)	—	—	—	—
Lobbies	5	0.06	150	—
Stages, studios	10	0.06	70	—
Ticket booths	5	0.06	60	—
<b>Transportation</b>				
Platforms	7.5	0.06	100	—
Transportation waiting	7.5	0.06	100	—
<b>Workrooms</b>				
Bank vaults/safe deposit	5	0.06	5	—

<del>Occupancy Classification</del>	<del>People Outdoor Airflow Rate in Breathing Zone cfm/Person</del>	<del>Area Outdoor Airflow Rate in Breathing Zone R<sub>a</sub> cfm/ft<sup>2a</sup></del>	<del>Default Occupant Density #/1000 ft<sup>2a</sup></del>	
Darkrooms	—	—	—	1.0
Copy, printing rooms	5	0.06	4	0.5
Meat processing <sup>e</sup>	15	—	10	—
Pharmacy (prep area)	5	0.18	10	—
Photo studios	5	0.12	10	—
Computer (without printing)	5	0.06	4	—))

<u>Occupancy Classification</u>	<u>Occupant Density #/1000 ft<sup>2a</sup></u>	<u>People Outdoor Airflow Rate in Breathing Zone R<sub>p</sub> cfm/Person</u>	<u>Area Outdoor Airflow Rate in Breathing Zone R<sub>a</sub> cfm/ft<sup>2a</sup></u>	<u>Exhaust Airflow Rate cfm/ft<sup>2</sup></u>
<b>Offices</b>				
Conference rooms	50	5	0.06	—
Kitchenettes	—	—	—	0.30
Office spaces	5	5	0.06	—
Reception areas	30	5	0.06	—
Telephone/data entry	60	5	0.06	—
Main entry lobbies	10	5	0.06	—
<b>Private dwellings, single and multiple</b>				
Garages, common for multiple units <sup>b</sup>	—	—	—	0.75
Garages, separate for each dwelling <sup>b</sup>	—	—	—	100 cfm per car
Kitchens <sup>b</sup>	—	—	—	25/100 <sup>f</sup>
Living areas <sup>c</sup>	Based on the number of bedrooms. First bedroom, 2; each additional bedroom, 1	0.35 ACH but not less than 15 cfm/person	—	—
Toilet rooms, bathrooms and laundry areas <sup>g, i</sup>	—	—	—	20/50 <sup>f</sup>
<b>Sports and amusement</b>				
Disco/dance floors	100	20	0.06	—
Bowling alleys (seating areas)	40	10	0.12	—
Game arcades	20	7.5	0.18	—
Ice arenas, without combustion engines <sup>l</sup>	—	—	0.30	0.5
Gym, stadium, arena (play area) <sup>l</sup>	—	—	0.30	—
Spectator areas	150	7.5	0.06	—
Swimming pools (pool and deck area)	—	—	0.48	—
Health club/aerobics room	40	20	0.06	—
Health club/weight room	10	20	0.06	—
<b>Storage</b>				
Janitor closets, trash rooms, recycling rooms	—	—	—	1.0
Repair garages, enclosed parking garage <sup>b, d</sup>	—	—	—	0.75
Storage rooms, chemical	—	—	—	1.5
Warehouses	—	—	0.06	—

For SI: 1 cubic foot per minute = 0.0004719 m<sup>3</sup>/s, 1 ton = 908 kg, 1 cubic foot per minutes per square foot = 0.00508 m<sup>3</sup>/(s•m<sup>2</sup>), °C = [(°F) - 32]/1.8, 1 square foot = 0.0929 m<sup>2</sup>.

- a. Based upon net occupiable floor area.
- b. Mechanical exhaust required and the recirculation of air from such spaces is prohibited (see Section 403.2.1, Item 3).
- c. Spaces unheated or maintained below 50°F are not covered by these requirements unless the occupancy is continuous.
- d. Ventilation systems in enclosed parking garages shall comply with Section 404.



- e. Rates are per water closet or urinal. The higher rate shall be provided where ~~((periods of heavy use are expected to occur, such as toilets in theaters, schools and sports facilities))~~ the exhaust system is designed to operate intermittently. The lower rate shall be permitted ~~((where periods of heavy use are not expected.))~~ only where the exhaust system is designed to operate continuously while occupied.
- f. Rates are per room unless otherwise indicated. The higher rate shall be provided where the exhaust system is designed to operate intermittently. The lower rate shall be permitted only where the exhaust system is designed to operate continuously ~~((during normal hours of use))~~ while occupied.
- g. ~~((Reserved.))~~ Mechanical exhaust is required and recirculation is prohibited.
- h. For nail salons, ~~((the required exhaust shall include ventilation tables or other systems that capture the contaminants and odors at their source and are capable of exhausting a minimum of))~~ each nail station shall be provided with a source capture system capable of exhausting not less than 50 cfm per station.
- i. A laundry area within a kitchen or bathroom is not required to have ~~((source specific))~~ local exhaust. For the laundry area to qualify as being within the kitchen, the laundry room door must open directly into the kitchen and not into an adjacent corridor. Where there are doors that separate the laundry area from the kitchen or bathroom the door shall be louvered.
- j. When combustion equipment is intended to be used on the playing surface, additional dilution ventilation and/or source control shall be provided.

**403.8 Ventilation systems for Group R occupancies.** Each dwelling unit or ~~((guest room))~~ sleeping unit shall be equipped with ~~((source specific))~~ local exhaust and whole house ventilation systems and shall comply with Sections 403.8.1 through 403.8.11. All public corridors and other than Group R occupied spaces that support the Group R occupancy shall meet the ventilation requirements of Section 402 or Sections 403.1 to 403.7.

**403.8.1 Minimum ventilation performance.** Ventilation systems shall be designed and installed to satisfy the ventilation requirements of Table 403.3 or Table 403.8.1. Breathing zone ventilation rates from Table 403.3 shall be calculated per Section 403.3.1.1 and corrected per zone air distribution effectiveness requirements per Section 403.3.1.2.

**Table 403.8.1**  
**VENTILATION RATES FOR ALL GROUP R PRIVATE DWELLINGS, SINGLE AND MULTIPLE**  
**(CONTINUOUSLY OPERATING SYSTEMS)**

Floor Area (ft <sup>2</sup> )	Bedrooms <sup>1</sup>				
	0-1	2-3	4-5	6-7	>7
<1500	30	45	60	75	90
1501 - 3000	45	60	75	90	105
3001 - 4500	60	75	90	105	120
4501 - 6000	75	90	105	120	135
6001 - 7500	90	105	120	135	150
>7500	105	120	135	150	165

<sup>1</sup>Ventilation rates in table are minimum outdoor airflow rates measured in cfm.

**403.8.2 Control and operation.**

1. Location of controls. Controls for all ventilation systems shall be readily accessible by the occupant.
2. Instructions. Operating instructions for whole house ventilation systems shall be provided to the occupant by the installer of the system.
3. ~~((Source specific))~~ Local exhaust ventilation systems. ~~((Source specific))~~ Local exhaust ventilation systems shall be controlled by manual switches, dehumidistats, timers, or other approved means.
4. Continuous whole house ventilation systems. Continuous whole house ventilation systems shall operate continuously. Exhaust fans, forced-air system fans, or supply fans shall be equipped with "fan on" as override controls. Controls shall be capable of operating the ventilation system without energizing other energy-consuming appliances. A label shall be affixed to the controls that reads "Whole House Ventilation (see operating instructions)."
5. Intermittent whole house ventilation systems. Intermittent whole house ventilation systems shall comply with the following:
  - 5.1 They shall be capable of operating intermittently and continuously.
  - 5.2 They shall have controls capable of operating the exhaust fans, forced-air system fans, or supply fans without energizing other energy-consuming appliances.

- 5.3 The ventilation rate shall be adjusted according to the exception in Section 403.8.5.1.
- 5.4 The system shall be designed so that it can operate automatically based on the type of control timer installed.
- 5.5 The intermittent mechanical ventilation system shall operate at least one hour out of every twelve.
- 5.6 The system shall have a manual control and automatic control, such as a 24-hour clock timer.
- 5.7 At the time of final inspection, the automatic control shall be set to operate the whole house fan according to the schedule used to calculate the whole house fan sizing.
- 5.8 A label shall be affixed to the control that reads "Whole House Ventilation (see operating instructions)."

EXCEPTION:      Engineered central ventilation systems serving dwelling units or sleeping units are not required to have individual controls for each dwelling unit or sleeping unit when designed for continuous operation and approved by the code official.

**403.8.3 Outdoor air intake locations.** *Outdoor air* intakes shall be classified as either operable openings or mechanical air intakes and shall be located per the following criteria. The intake locations for operable openings and mechanical air intakes shall comply with the following:

1. Openings for mechanical air intakes shall comply with Section 401.4. Operable openings shall comply with Section 401.4 items 2 and 4 only.

2. Intake openings shall not be located closer than 10 feet from an appliance vent outlet unless such vent outlet is 3 feet above the *outdoor air* inlet. The vent shall be permitted to be closer if specifically allowed by Chapter 8 or by the International Fuel Gas Code.

3. Intake openings shall be located where they will not pick up objectionable odors, fumes, or flammable vapors.

4. Intake openings shall be located where they will not take air from a hazardous or unsanitary location.

5. Intake openings shall be located where they will not take air from a room or space having a fuel-burning appliances.

6. Intake openings shall not be located closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.

7. Intake openings shall not be located where they will take air from an attic, crawl space, or garage.

**403.8.4 ((Source specific)) Local exhaust ventilation requirements.** ((Source specific)) Local exhaust ventilation systems shall exhaust at least the volume of air required for exhaust in Table 403.3. Exhaust shall be provided in each kitchen, bathroom, water closet, laundry area, indoor swimming pool, spa, and other room where water vapor or cooking odor is produced.

**403.8.4.1 ((Source specific)) Local exhaust systems.** Exhaust systems shall be designed and installed to meet all of the criteria below:

1. ((Source specific)) Local exhaust shall be discharged outdoors.

2. Exhaust outlets shall comply with Section ((501-2)) 501.3.

3. Pressure equalization shall comply with Section ((501-3)) 501.4.

4. Exhaust ducts in systems which are designed to operate intermittently shall be equipped with back-draft dampers.

5. All exhaust ducts in unconditioned spaces shall be insulated to a minimum of R-4.

6. Terminal outlet elements shall have at least the equivalent net free area of the ductwork.

7. Terminal outlet elements shall be screened or otherwise protected as required by Section ((501-2.2)) 501.3.2.

8. Exhaust fans in separate dwelling units or ((guest rooms)) sleeping units shall not share common exhaust ducts unless the system is engineered for this operation.

9. Where permitted by Chapter 5, multiple ((source specific)) local exhaust ducts may be combined. If more than one of the exhaust fans in a dwelling unit or ((guest room)) sleeping unit shares a common exhaust duct then each exhaust fan shall be equipped with a back-draft damper to prevent the recirculation of exhaust air from one room to another room via the exhaust ducting system.

**403.8.4.2 ((Source specific)) Local exhaust fans.** Exhaust fan construction and sizing shall meet the following criteria.

1. Exhaust fans shall be tested and rated in accordance with the airflow and sound rating procedures of the Home Ventilating Institute (HVI 915, HVI Loudness Testing and Rating Procedure, HVI 916, HVI Airflow Test Procedure, and HVI 920, HVI Product Performance Certification Procedure).

EXCEPTION: Where a range hood or down draft exhaust fan is used for ((source specific)) local exhaust for a kitchen, the device is not required to be rated per these standards.

2. Installation of the system or equipment shall be carried out in accordance with manufacturers' installation instructions.

3. Fan airflow rating and duct system shall be designed and installed to deliver at least the exhaust airflow required by Table 403.3. The airflows required refer to the delivered airflow of the system as installed and tested using a flow hood, flow grid, or other airflow measurement device.

EXCEPTIONS:

1. An exhaust airflow rating at a pressure of 0.25 in. w.g. may be used, provided the duct sizing meets the prescriptive requirements of Table 403.8.4.2.
2. Where a range hood or down draft exhaust fan is used to satisfy the ((source specific ventilation)) local exhaust requirements for kitchens, the range hood or down draft exhaust shall not be less than 100 cfm at 0.10 in. w.g.

TABLE 403.8.4.2  
PRESCRIPTIVE EXHAUST DUCT SIZING

Fan Tested cfm at 0.25 inches w.g.	Minimum Flex Diameter	Maximum Length in Feet	Minimum Smooth Diameter	Maximum Length in Feet	Maximum Elbows <sup>1</sup>
50	4 inches	25	4 inches	70	3
50	5 inches	90	5 inches	100	3
50	6 inches	No Limit	6 inches	No Limit	3
80	4 inches <sup>2</sup>	NA	4 inches	20	3
80	5 inches	15	5 inches	100	3
80	6 inches	90	6 inches	No Limit	3
100	5 inches <sup>2</sup>	NA	5 inches	50	3
100	6 inches	45	6 inches	No Limit	3
125	6 inches	15	6 inches	No Limit	3
125	7 inches	70	7 inches	No Limit	3

1. For each additional elbow, subtract 10 feet from length.  
2. Flex ducts of this diameter are not permitted with fans of this size.

**403.8.5 Whole house ventilation requirements.** Each dwelling unit or ((~~guest room~~)) sleeping unit shall be equipped with one of the following four types of mechanical whole house ventilation systems: A system using exhaust fans (see Section 403.8.6); a system integrated with forced-air systems (see Section 403.8.7); a system using supply fans (see Section 403.8.8); or a heat or energy recovery ventilation system (see Section 403.8.9). The whole house exhaust system is permitted to be one of the local exhaust systems required by Section 403.8.4 as long as the requirements of this section, in addition to the requirements of Section 403.8.5, are met.

**403.8.5.1 Outdoor air.** *Outdoor air* shall be distributed to each habitable space.

Where *outdoor air* supply intakes are separated from exhaust vents by doors, means shall be provided to ensure airflow to all separated habitable spaces by installing distribution ducts, installed grilles, transoms, doors undercut to a minimum of 1/2-inch above the surface of the finish floor covering, or other similar means where permitted by the *International Building Code*.

The mechanical system shall operate continuously to supply at least the volume of *outdoor air* required in Table 403.3 or Table 403.8.1.

EXCEPTION: Intermittently operating ventilation systems: ((The mechanical system shall have controls for intermittent operation per Section 403.8.2 and shall supply at least the volume of outdoor air required for intermittent operation based on the combination of its delivered capacity (from Table 403.3 or Table 403.8.1), its ven-

tilation effectiveness (from Table 403.8.5.1) and its daily fractional operation time (from Table 403.8.5.1) using the formula:

$$Q_f = Q_r / (\epsilon \cdot f)$$

Where:

- $Q_f$  = outdoor air flow rate
- $Q_r$  = ventilation air requirement (from Table 403.3 or 403.8.1)
- $\epsilon$  = ventilation effectiveness (from Table 403.8.5.1)
- $f$  = fractional operation time (from Table 403.8.5.1))

The whole house mechanical ventilation system is permitted to operate intermittently where the system has controls that enable operation for not less than 25 percent of each 4-hour segment and the ventilation rate prescribed in Table 403.3 or Table 403.8.1 is multiplied by the factor determined in accordance with Table 403.8.5.1.

**TABLE 403.8.5.1  
((~~VENTILATION EFFECTIVENESS FOR~~)) INTERMITTENT  
((~~FANS~~)) WHOLE HOUSE MECHANICAL VENTILATION RATE  
FACTORS<sup>a, b</sup>**

<b>((<del>Daily Fractional Operation Time, f</del>))</b>	<b>Ventilation Effectiveness, <math>\epsilon</math></b>
$f \leq 35\%$	0.33
$35\% \leq f < 60\%$	0.50
$60\% \leq f < 80\%$	0.75
$80\% \leq f$	1.0))

<b><u>RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT</u></b>	<b><u>25%</u></b>	<b><u>33%</u></b>	<b><u>50%</u></b>	<b><u>66%</u></b>	<b><u>75%</u></b>	<b><u>100%</u></b>
Factor <sup>a</sup>	4	3	2	1.5	1.3	1.0

<sup>a</sup> For ventilation system run-time values between those given, the factors are permitted to be determined by interpolation.

<sup>b</sup> Extrapolation beyond the table is prohibited.

**403.8.5.2 Whole house supply system general requirements.** Whole house ventilation systems integrated with a forced-air system, systems using supply fans and systems using a heat or energy recovery ventilation system shall comply with the following.

1. *Outdoor air* louvers shall be adequately sized for the required airflow and shall comply with Section 401.5. *Outdoor air* intake locations shall comply with mechanical air intakes requirements of Section 403.8.3.

2. *Outdoor air* ducts for dedicated or central supply systems and exhaust ducts for heat or energy recovery systems shall be provided with a means for balancing the system to the required airflow via balance dampers or other devices.

3. *Outdoor air* ducts, for dedicated or central systems shall be provided with motorized dampers.

EXCEPTIONS: 1. *Outdoor air* ducts at heat or energy recovery ventilation systems are not required to have motorized dampers.  
2. *Outdoor air* ducts at continuous ventilation systems are not required to have motorized dampers.

4. *Outdoor air* ducts in the conditioned space shall be insulated to a minimum of R-4. In heat or energy recovery

ventilation systems, ducts upstream of the heat exchanger shall also be insulated to at least R-4.

5. All *outdoor air* ducts shall be designed and installed to deliver at least the outdoor airflow required by Section 403.8.5.1. The airflows required refer to the delivered airflow of the system as installed and tested using a flow hood, flow grid, or other airflow measurement device.

EXCEPTION: The *outdoor air* duct for supply fan systems and heat or energy recovery systems may be prescriptively sized per Table 403.8.5.2 for dedicated *outdoor air* ducts upstream of the supply fan. Supply fans shall have the capacity to provide the amount of *outdoor air* required by Section 403.8.5.1 at 0.40 in. w.g. as per HVI 916 (April 1995). When prescriptively sized the system shall be tested and balanced using a flow hood, flow-grid, or other airflow measurement device.

6. Whole house ventilation controls for ((~~continuous and~~)) intermittent operation shall be provided at both the forced-air fan and the motorized damper.

EXCEPTION: Engineered central ventilation systems serving dwelling units or sleeping units are not required to have individual controls for each dwelling or sleeping unit when designed for continuous operation and approved by the code official.

7. Whole house ventilation controls for continuous operation shall be provided at the forced-air fan.

**TABLE 403.8.5.2  
PRESCRIPTIVE SUPPLY FAN DUCT SIZING**

Supply Fan Tested cfm at 0.40" w.g.		
Specified Volume from Table 408.1	Minimum Smooth Duct Diameter	Minimum Flexible Duct Diameter
50 - 90 cfm	4 inch	5 inch
90 - 150 cfm	5 inch	6 inch
150 - 250 cfm	6 inch	7 inch
250 - 400 cfm	7 inch	8 inch

**403.8.6 Whole house ventilation with exhaust fan systems.** This section establishes minimum requirements for mechanical whole house ventilation systems using exhaust fans.

**403.8.6.1 Outdoor air.** Exhaust fan only ventilation systems shall provide outdoor air to each occupiable space through one of the following methods:

1. Outdoor air may be drawn through air inlets installed in exterior walls or windows. ~~((For interior spaces without openings to the outdoor, air inlets cannot be used unless a transfer fan is provided in compliance with Section 403.8.6.1 Item 3-))~~ The air inlets shall comply with all of the following:

a. Inlets shall have controllable, secure openings and shall be designed to not compromise the thermal properties of the building envelope.

b. Inlets shall be accessible to occupants, including compliance with Section 1109.13 of the International Building Code for designated accessible units, Type A units and Type B units.

c. Inlets shall be screened or otherwise protected from entry by insects, leaves, or other material.

d. Inlets shall provide not less than 4 square inches of net free area of opening for each 10 cfm of outdoor air required in Table 403.3 or Table 403.8.1.

e. Any inlet or combination of inlets which provide 10 cfm at 10 Pascals as determined by the Home Ventilation Institute Air Flow Test Standard (HVI 901 (November 1996)) are deemed equivalent to 4 square inches of net free area.

f. Each occupiable space shall have a minimum of one air inlet that has a minimum of 4 square inches of net free area.

2. In high-rise buildings, outdoor air may be drawn in through operable windows, doors, louvers or other operable openings to the outdoors. Exterior spaces shall have a minimum openable area of 4 percent of the total floor area being ventilated. Doors exiting to a corridor, court or public way shall not be used to provide outdoor air. ~~((For interior spaces without openings to the outdoors, the opening to the adjoining room shall be unobstructed and shall have an area of not less than 8 percent of the floor area of the interior room or space, but not less than 25 square feet.))~~ The operable openings shall comply with the following:

a. Openings shall be controllable, securable, and shall be designed to not compromise the thermal properties of the building envelope.

b. Openings shall be accessible to occupants, including compliance with Section 1109.13 of the International Building Code for designated accessible units, Type A units and Type B units.

3. For interior adjoining spaces ~~((in buildings with air inlets in accordance with Section 403.8.6.1 Item 1 or in high-rise building without operable openings in accordance with Section 403.8.6.1 Item 2 shall have a whole house transfer fan sized to provide a minimum of the ventilation rate required per Section 403.8.5.1. The transfer fan shall circulate air between the interior room or space and the adjacent habitable space. The transfer fan may operate continuously or intermittently using controls per Section 403.8.2))~~ without outdoor air openings, one of the following two options shall be used to ventilate the interior adjoining space:

a. Provide a whole house transfer fan at the interior adjoining space sized to provide a minimum of the ventilation rate required per Section 403.8.5.1. The transfer fan shall circulate air between the interior room or space and the adjacent habitable space. The transfer fan may operate continuously or intermittently using controls per Section 403.8.2.

b. Provide a permanent opening to the interior adjoining space. Opening shall be unobstructed and shall have an area of not less than 8 percent of the floor area of the interior adjoining space, but not less than 25 square feet.

**403.8.6.2 Outside air intake locations.** All outside air intake opening types described in Section 403.8.6.1 shall be classified operable openings and shall not be classified as mechanical air intakes. The intake locations shall comply with Section 403.8.3.

**403.8.6.3 Whole house exhaust system.** Whole house exhaust system shall be designed and installed to meet all of the applicable criteria below:

1. Whole house ventilation exhaust shall be discharged outdoors.

2. Exhaust outlets shall comply with Section 501.2.

3. Exhaust ducts in systems which are designed to operate intermittently shall be equipped with back-draft dampers.

4. All exhaust ducts in unconditioned spaces shall be insulated to a minimum of R-4.5. Terminal outlet elements shall have at least the equivalent net free area of the ductwork.

5. Terminal outlet elements shall be screened or otherwise protected as required by Section 501.2.2.

6. One of the required ~~((source specific))~~ local exhaust fans for the laundry room or bathroom may be designated as the whole house exhaust fan.

7. Exhaust fans in separate dwelling units or ~~((guest rooms))~~ sleeping units shall not share common exhaust ducts unless the system is engineered for this operation.

8. Where permitted by Chapter 5 whole house exhaust ducts may be combined with other ~~((source specific))~~ local exhaust ducts. If more than one of the exhaust fans in a dwelling unit or ~~((guest room))~~ sleeping unit shares a common exhaust duct then each exhaust fan shall be equipped with a back-draft damper to prevent the recirculation of exhaust air from one room to another room via the exhaust ducting system.

**403.8.6.4 Whole house exhaust and transfer fans.** Exhaust fan construction and sizing shall meet the following criteria.

1. Exhaust and transfer fans shall be tested and rated in accordance with the airflow and sound rating procedures of the Home Ventilating Institute (HVI 915, HVI Loudness

Testing and Rating Procedure, HVI 916, HVI Airflow Test Procedure, and HVI 920, HVI Product Performance Certification Procedure).

2. Installation of system or equipment shall be carried out in accordance with manufacturers' design requirements and installation instructions.

3. Fan airflow rating and duct system shall be designed and installed to deliver at least the outdoor airflow required by Table 403.3 or Table 403.8.1. The airflows required refer to the delivered airflow of the system as installed and tested using a flow hood, flow grid, or other airflow measurement device.

**EXCEPTION:** An airflow rating at a pressure of 0.25 in. w.g. may be used, provided the duct sizing meets the prescriptive requirements of Table 403.8.5.2.

**403.8.6.5 Fan noise.** Whole house exhaust and transfer fans located 4 feet or less from the interior grille shall have a sound rating of 1.0 or less measured at 0.10 inches water gauge. Manufacturer's noise ratings shall be determined as per HVI 915. Remotely mounted fans shall be acoustically isolated from the structural elements of the building and from attached ductwork using insulated flexible duct or other approved material.

**403.8.7 Whole house ventilation integrated with forced-air systems.** This section establishes minimum requirements for mechanical whole house ventilation systems using forced-air system fans.

**403.8.7.1 Outdoor air.** Forced-air system fan ventilation systems shall provide *outdoor air* through one of the following methods:

1. A dedicated *outdoor air* louver and *outdoor air* duct for each dwelling unit or ((~~guest room~~)) sleeping unit shall supply *outdoor air* to the return side of the forced-air system fan; or

2. A central *outdoor air* delivery system that supplies multiple dwelling units or ((~~guest rooms~~)) sleeping units shall supply *outdoor air* to the return side of the forced air system fan.

**403.8.7.2 Whole house forced-air system.** Where *outdoor air* is provided to each habitable dwelling unit or ((~~guest room~~)) sleeping unit by a forced-air system, the *outdoor air* duct shall be connected to the return air stream at a point within 4 feet upstream of the forced-air unit. It shall not be connected directly to the forced-air unit cabinet in order to prevent thermal shock to the heat exchanger. At a minimum, filtration of the *outdoor air* shall be provided at the forced-air unit. The filter shall be accessible for regular maintenance and replacement. The filter shall have a Minimum Efficiency Rating Value (MERV) of at least 6.

**403.8.8 Whole house ventilation with supply fan systems.** This section establishes minimum requirements for mechanical whole house ventilation systems using supply fan systems.

**403.8.8.1 Outdoor air.** Supply fan ventilation systems shall provide *outdoor air* through one of the following methods:

1. A dedicated *outdoor air* louver and *outdoor air* duct for each dwelling unit or ((~~guest room~~)) sleeping unit shall supply *outdoor air* to a supply fan; or

2. A central *outdoor air* supply fan system shall distribute unconditioned or conditioned air to multiple dwelling units or ((~~guest rooms~~)) sleeping units.

**403.8.8.2 Whole house supply system.** Where *outdoor air* is provided to each habitable dwelling unit or ((~~guest room~~)) sleeping unit by supply fan systems the *outdoor air* shall be filtered.

The system filter may be located at the intake device or inline with the fan. The filter shall be accessible for regular maintenance and replacement. The filter shall have a Minimum Efficiency Rating Value (MERV) of at least 6.

**403.8.9 Whole house ventilation with heat recovery or energy recovery ventilation systems.** This section establishes minimum requirements for mechanical whole house ventilation systems using heat recovery or energy recovery ventilation systems.

**403.8.9.1 Outdoor air.** Heat recovery or energy recovery ventilation systems shall provide *outdoor air* through one of the following methods:

1. A dedicated *outdoor air* louver and *outdoor air* duct for each dwelling unit or ((~~guest room~~)) sleeping unit shall supply *outdoor air* to the heat recovery or energy recovery ventilator; or

2. A central *outdoor air* heat recovery or energy recovery unit shall distribute conditioned air to multiple dwelling units or ((~~guest rooms~~)) sleeping units.

**403.8.9.2 Whole house heat recovery ventilator system.** Where *outdoor air* is provided to each habitable dwelling unit or ((~~guest room~~)) sleeping unit by heat recovery or energy recovery ventilator the *outdoor air* shall be filtered. The filter shall be located on the upstream side of the heat exchanger in both the intake and exhaust airstreams with a Minimum Efficiency Rating Value (MERV) of at least 6. The system filter may be located at the intake device or inline with the fan. The filter shall be accessible for regular maintenance and replacement.

**403.8.10 ((~~Source specific~~)) Local exhaust ventilation and whole house ventilation alternate performance or design requirements.** In lieu of complying with Sections 403.8.4 or 403.8.5 compliance with the section shall be demonstrated through engineering calculations by an engineer licensed to practice in the state of Washington or by performance testing. Documentation of calculations or performance test results shall be submitted to and approved by the building official. Performance testing shall be conducted in accordance with approved test methods.

**403.8.11 Alternate systems.** When approved by the code official, systems designed in accordance with ASHRAE Standard 62.2((-2007)) shall be permitted.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

AMENDATORY SECTION (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0404 Section 404—Enclosed parking garages and automobile repair facilities.**

~~((404.5))~~ **404.4 Automobile repair facilities.** In buildings used for the repair of automobiles, each repair stall shall be equipped with an exhaust extension duct, extending to the outside of the building. Exhaust extension duct over 10 feet in length shall mechanically exhaust at least 300 cfm. Connecting offices and waiting rooms shall be supplied with conditioned air under positive pressure.

AMENDATORY SECTION (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0501 Section 501—General.**

~~((501.2 Exhaust discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a nuisance and not less than the distances specified in Section 501.2.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or crawlspace.~~

EXCEPTIONS:

1. Whole-house cooling fans shall be permitted to discharge into the attic space of dwelling units having private attics.
2. Commercial cooking recirculating systems.

~~501.2.1))~~ **501.3.1 Location of exhaust outlets.** The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:

1. **For ducts conveying explosive or flammable vapors, fumes or dusts:** 30 feet (9144 mm) from the property line; 10 feet (3048 mm) from operable openings into the building; 6 feet (1829 mm) from exterior walls and roofs; 30 feet (9144 mm) from combustible walls and operable openings into the building which are in the direction of the exhaust discharge; 10 feet (3048 mm) above adjoining grade.

2. **For other product-conveying outlets:** 10 feet (3048 mm) from property lines; 3 feet (914 mm) from exterior walls and roofs; 10 feet (3048 mm) from operable openings into the building; 10 feet (3048 mm) above adjoining grade.

3. **For environmental air exhaust other than enclosed parking garage and transformer vault exhaust:** 3 feet (914 mm) from property lines, 3 feet (914 mm) from operable openings into buildings for all occupancies other than Group U, and 10 feet (3048 mm) from mechanical air intakes. Such exhaust shall not be considered hazardous or noxious.

EXCEPTIONS:

1. The separation between an air intake and exhaust outlet on a single listed package HVAC unit.
2. Exhaust from environmental air systems other than garages may be discharged into an open parking garage.
3. Except for Group I occupancies, where ventilation system design circumstances require building HVAC air to be relieved, such as during economizer operation, such air may be relieved into an open or enclosed parking garage within the same building.

4. Exhaust outlets serving structures in flood hazard areas shall be installed at or above the ~~((design flood level))~~

elevation required by Section 1613 of the *International Building Code* for utilities and attendant equipment.

5. For enclosed parking garage exhaust system outlets and transformer vault exhaust system outlets: 10 feet (3048 mm) from property lines which separate one lot from another; 10 feet (3048 mm) from operable openings into buildings; 10 feet (3048 mm) above adjoining ~~((grade))~~ finished sidewalk.

6. For elevator machinery rooms in enclosed or open parking garages: Exhaust outlets may discharge air directly into the parking garage.

7. For specific systems see the following sections:

7.1. Clothes dryer exhaust, Section 504.4.

7.2. Kitchen hoods and other kitchen exhaust equipment, Sections ~~((506.3))~~ 506.3.13, 506.4 and 506.5.

7.3. Dust stock and refuse conveying systems, Section ~~((511))~~ 511.2.

7.4. Subslab soil exhaust systems, Section 512.4.

7.5. Smoke control systems, Section 513.10.3.

7.6. Refrigerant discharge, Section 1105.7.

7.7. Machinery room discharge, Section 1105.6.1.

**501.4 Pressure equalization.** Mechanical exhaust systems shall be sized to remove the quantity of air required by this chapter to be exhausted. The system shall operate when air is required to be exhausted. Where mechanical exhaust is required in a room or space, such space shall be maintained with a neutral or negative pressure. If a greater quantity of air is supplied by a mechanical ventilating supply system than is removed by a mechanical exhaust for a room, adequate means shall be provided for the natural or mechanical exhaust of the excess air supplied. If only a mechanical exhaust system is installed for a room or if a greater quantity of air is removed by a mechanical exhaust system than is supplied by a mechanical ventilating supply system for a room, adequate makeup air consisting of supply air, transfer air or outdoor air shall be provided to satisfy the deficiency. The calculated building infiltration rate shall not be used to satisfy the requirements of this section.

EXCEPTION:

R-3 occupancies and dwelling units in R-2 occupancies are excluded from the pressure equalization requirement unless required by Section 504.5 or Section 505.2.

AMENDATORY SECTION (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0504 Section 504—Clothes dryer exhaust.**

**504.6.4.1 Specified length.** The maximum length of the exhaust duct shall be 35 feet (10668 mm) from the connection to the transition duct from the dryer to the outlet terminal. Where fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table 504.6.4.1.

The maximum length of the duct may be increased in an engineered exhaust system when a listed and labeled exhaust booster fan is installed in accordance with the manufacturer's installation instructions.

**504.7.1 Protection required.** Protective shield plates shall be provided in accordance with Section 504.6.7.

**504.8 Common exhaust systems for clothes dryers located in multistory structures.** Where a common multistory duct system is designed and installed to convey exhaust from multiple clothes dryers, the construction of the system shall be in accordance with all of the following:

1. The shaft in which the duct is installed shall be constructed and fire-resistance rated as required by the *International Building Code*.

2. Dampers shall be prohibited in the exhaust duct. Penetrations of the shaft and ductwork shall be protected in accordance with Section 607.5.5, Exception 2.

3. Rigid metal ductwork shall be installed within the shaft to convey the exhaust. The ductwork shall be constructed of sheet steel having a minimum thickness of 0.0187 inch (0.4712 mm) (No. 26 gage) and in accordance with *SMACNA Duct Construction Standards*.

4. The ductwork within the shaft shall be designed and installed without offsets.

5. The exhaust fan motor design shall be in accordance with Section 503.2.

6. The exhaust fan motor shall be located outside of the airstream.

7. The exhaust fan shall run continuously, and shall be connected to a standby power source.

8. Exhaust fan operation shall be monitored in an *approved* location and shall initiate an audible or visual signal when the fan is not in operation.

9. Makeup air shall be provided for the exhaust system to maintain the minimum flow for the exhaust fan when the dryers are not operating. Additionally, makeup air shall be provided when required by Section 504.5.

10. A cleanout opening shall be located at the base of the shaft to provide access to the duct to allow for cleaning and inspection. The finished opening shall be not less than 12 inches by 12 inches (305 mm by 305 mm).

11. Screens shall not be installed at the termination.

12. The common multistory duct system shall serve only clothes dryers and shall be independent of other exhaust systems.

**AMENDATORY SECTION** (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0505 Section 505—Domestic kitchen exhaust equipment.**

**505.1 Domestic systems.** Where domestic range hoods and domestic appliances equipped with downdraft exhaust are located within dwelling units, such hoods and appliances shall discharge to the outdoors through sheet metal ducts constructed of galvanized steel, stainless steel, aluminum or copper. Such ducts shall have smooth inner walls ~~((and))~~, shall be air tight ~~((and))~~, shall be equipped with a backdraft damper ~~((Domestic range hood duct systems shall not be combined with other environmental air exhaust systems))~~ and shall be independent of all other exhaust systems.

Listed and labeled exhaust booster fans shall be permitted when installed in accordance with the manufacturer's installation instructions.

EXCEPTIONS:

1. Where installed in accordance with the manufacturer's installation instructions and where mechanical ventilation is otherwise provided in accordance with Chapter 4, listed and labeled ductless range hoods shall not be required to discharge to the outdoors.

2. Ducts for domestic kitchen cooking appliances equipped with downdraft exhaust systems shall be permitted to be constructed of Schedule 40 PVC pipe and fittings provided that the installation complies with all of the following:

2.1. The duct shall be installed under a concrete slab poured on grade.

2.2. The underfloor trench in which the duct is installed shall be completely backfilled with sand or gravel.

2.3. The PVC duct shall extend not more than 1 inch (25 mm) above the indoor concrete floor surface.

2.4. The PVC duct shall extend not more than 1 inch (25 mm) above grade outside of the building.

2.5. The PVC ducts shall be solvent cemented.

**AMENDATORY SECTION** (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0506 Section 506—Commercial kitchen hood ventilation system ducts and exhaust equipment.**

**506.3.9 Grease duct cleanout location, spacing and installation.**

**506.3.9.1 Grease duct horizontal cleanout.** Cleanouts located on horizontal sections of ducts shall:

1. Be spaced not more than 20 feet (6096 mm) apart.

~~((The cleanouts shall))~~ 2. Be located ~~((on the side of the duct with the opening not less than 1 1/2 inches (38 mm) above the bottom of the duct, and not less))~~ not more than 10 feet (3048 mm) from changes in direction that are greater than 45 degrees (0.79 rad).

3. Be located on the bottom only where other locations are not available and shall be provided with internal damping of the opening such that grease will flow past the opening without pooling. Bottom cleanouts and openings shall be approved for the application and installed liquid-tight.

4. Not be closer than 1 inch ~~((25))~~ 25.4 mm ~~((below the top of the duct. The opening minimum))~~ from the edges of the duct.

5. Have dimensions ~~((shall be))~~ of not less than 12 inches by 12 inches (305 mm by 305 mm) ~~((on each side))~~. Where ~~((the))~~ such dimensions ~~((of the side of the duct prohibit the cleanout))~~ preclude installation ~~((prescribed herein))~~, the openings shall ~~((be on the top of the duct or the bottom of the duct. Where located on the top of the duct, the opening edges shall be a minimum of 1 inch (25 mm) from the edges of the duct. Where located in the bottom of the duct, cleanout openings shall be designed to provide internal damping around the opening, shall be provided with gasketing to preclude grease leakage, shall provide for drainage of grease down the duct around the dam and shall be approved for the application. Where the dimensions of the sides, top or bottom of the duct preclude the installation of the prescribed minimum size cleanout opening, the cleanout shall be located on the duct face that affords the largest opening dimension and shall be~~

installed with the opening edges at the prescribed distances from the duct edges as previously set forth in this section)) be large enough to provide access for cleaning and maintenance.

6. Shall be located at grease reservoirs.

**506.3.9.2 Grease duct vertical cleanouts.** Where ducts pass vertically through floors, cleanouts shall be provided. A minimum of one cleanout shall be provided on each floor. Cleanout openings shall be not less than 1 1/2 inches (38 mm) from all outside edges of the duct or welded seams.

**506.3.11 Grease duct enclosures.** A grease duct serving a Type I hood that penetrates a ceiling, wall, floor or any concealed spaces shall be enclosed from the point of penetration to the outlet terminal. A duct shall penetrate exterior walls only at locations where unprotected openings are permitted by the *International Building Code*. The duct enclosure shall serve a single grease duct and shall not contain other ducts, piping or wiring systems. Duct enclosures shall be either field-applied or factory-built. Duct enclosures shall have a fire-resistance rating of not less than that of the assembly penetrated. The duct enclosure need not exceed 2 hours but shall not be less than 1 hour. Duct enclosures shall be as prescribed by Section 506.3.10.1, 506.3.10.2 or 506.3.10.3.

**AMENDATORY SECTION** (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0507 Section 507—Commercial kitchen hoods.**

**507.2.1 Type I hoods.** Type I hoods shall be installed where cooking appliances produce grease or smoke. Type I hoods shall be installed over medium-duty, heavy-duty and extra-heavy-duty cooking appliances. Type I hoods shall be installed over light-duty cooking appliances that produce grease or smoke.

- EXCEPTIONS:
1. A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m<sup>3</sup> or less of grease when tested at an exhaust flow rate of 500 cfm in accordance with Section 17 of UL 710B.
  2. A Type I hood shall not be required in an R-2 type occupancy with not more than 16 residents.

**507.2.3 Domestic cooking appliances used for commercial purposes.** Domestic cooking appliances utilized for commercial purposes shall be provided with Type I, Type II or residential hoods as required for the type of appliances and processes in accordance with Table 507.2.2 and Sections 507.2, 507.2.1 and 507.2.2.

**TABLE 507.2.2  
TYPE OF HOOD REQUIRED FOR DOMESTIC COOKING APPLIANCES  
IN THE FOLLOWING SPACES<sup>a, b</sup>**

<u>Type of Space</u>	<u>Type of Cooking</u>	<u>Type of Hood</u>
Church	1. Boiling, steaming and warming precooked food	Type II hood
	2. Roasting, pan frying and deep frying	Type I hood
Community or party room in apartment and condominium	1. Boiling, steaming and warming precooked food	Residential hood <sup>c</sup> or Type II hood <sup>d</sup>
	2. Roasting, pan frying and deep frying	Type I hood
Day care	1. Boiling, steaming and warming precooked food	Residential hood <sup>c</sup> or Type II hood <sup>d</sup>
	2. Roasting, pan frying and deep frying	Type I hood
Dormitory, boarding home, nursing home	1. Boiling, steaming and warming precooked food	Type II hood
	2. Roasting, pan frying and deep frying	Type I hood
Office lunch room	1. Boiling, steaming and warming precooked food	Residential hood <sup>c</sup> or Type II hood <sup>d</sup>
	2. Roasting, pan frying and deep frying	Type I hood

<sup>a</sup> Commercial cooking appliances shall comply with Section 507.2.

<sup>b</sup> Requirements in this table apply to electric or gas fuel appliances only. Solid fuel appliances or charbroilers require Type I hoods.

<sup>c</sup> Residential hood shall ventilate to the outside.

<sup>d</sup> Type II hood required when more than one appliance is used.

**AMENDATORY SECTION** (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-0601 Section 601—General.**

**601.2 Air movement in egress elements.** Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

- EXCEPTIONS:
1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted provided that each such corridor is directly supplied with ((~~outdoor air~~)) *outdoor air* at a rate greater than the rate of makeup air taken from the corridor.



2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
3. Where located within tenant spaces of one thousand square feet (93 m<sup>2</sup>) or less in area, utilization of corridors for conveying return air is permitted.
4. Incidental air movement from pressurized rooms within health care facilities, provided that the corridor is not the primary source of supply or return to the room.
5. Where such air is part of an engineered smoke control system.
6. Air supplied to corridors serving residential occupancies shall not be considered as providing ventilation air to the dwelling units subject to the following:
  - 6.1 The air supplied to the corridor is one hundred percent outside air; and
  - 6.2 The units served by the corridor have conforming ventilation air independent of the air supplied to the corridor; and
  - 6.3 For other than high-rise buildings, the supply fan will automatically shut off upon activation of corridor smoke detectors which shall be spaced at no more than thirty feet (9,144 mm) on center along the corridor; or
  - 6.4 For high-rise buildings, corridor smoke detector activation will close required smoke/fire dampers at the supply inlet to the corridor at the floor receiving the alarm.

NEW SECTION**WAC 51-52-0605 Section 605—Air filters.**

**605.4 Particulate matter removal.** Particulate matter filters or air cleaners having a minimum efficiency reporting value (MERV) of not less than 6 for ducted air handlers and not less than 4 for unducted air handlers shall be provided upstream of all cooling coils or other devices with wetted surfaces through which air is supplied to an occupiable space.

NEW SECTION**WAC 51-52-0928 Section 928—Evaporative cooling equipment.**

**928.1 General.** Evaporative cooling equipment shall:

1. Be installed in accordance with the manufacturer's instructions.
2. Be installed on level platforms in accordance with Section 304.10.
3. Have openings in exterior walls or roofs flashed in accordance with the *International Building Code*.
4. Be provided with potable water backflow protection in accordance with backflow requirements in the plumbing code. Have air intake opening locations in accordance with Section 401.4.

AMENDATORY SECTION (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-1000 Chapter 10—Boilers, water heaters and pressure vessels.**

~~((SECTIONS 1003 THROUGH 1011, are not adopted.~~

~~Boilers and Unfired Pressure Vessels are regulated by chapter 70.79 RCW.)~~ **1001.1 Scope.** This chapter shall gov-

ern the installation, alteration and repair of boilers, water heaters and pressure vessels.

EXCEPTIONS:

1. Pressure vessels used for unheated water supply.
2. Portable unfired pressure vessels and Interstate Commerce Commission containers.
3. Containers for bulk oxygen and medical gas.
4. Unfired pressure vessels having a volume of 5 cubic feet (0.14 m<sup>3</sup>) or less operating at pressures not exceeding 250 pounds per square inch (psi) (1724 kPa) and located within occupancies of Groups B, F, H, M, R, S and U.
5. Pressure vessels used in refrigeration systems that are regulated by Chapter 11 of this code.
6. Pressure tanks used in conjunction with coaxial cables, telephone cables, power cables and other similar humidity control systems.
7. Any boiler or pressure vessel subject to inspection by federal or state inspectors. For Washington state provisions, see chapter 70.79 RCW.

AMENDATORY SECTION (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-1500 Chapter 15—Referenced standards.** The following referenced standards are added to Chapter 15.

## ASHRAE

62.2-((2007)) 2010 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

AMENDATORY SECTION (Amending WSR 10-03-099, filed 1/20/10, effective 7/1/10)

**WAC 51-52-21101 Section 101—General.**

**101.2 Scope.** This code shall apply to the installation of fuel gas piping systems, fuel gas utilization equipment, gaseous hydrogen systems and regulated accessories in accordance with Section 101.2.1 through 101.2.5.

EXCEPTIONS:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the *International Residential Code*.
2. The standards for liquefied petroleum gas installations shall be the ((2008)) 2011 Edition of NFPA 58 (Liquefied Petroleum Gas Code) and the ((2009)) 2012 Edition of ANSI Z223.1/NFPA 54 (National Fuel Gas Code).

NEW SECTION**WAC 51-52-22004 Chapter 4—Gas piping installations.**

**401.9 Identification.** Each length of pipe and tubing and each pipe fitting utilized in a mechanical system shall bear the identification of the manufacturer.

EXCEPTION:

The manufacturer identification for fittings and pipe nipples shall be on each piece or shall be printed on the fitting or nipple packaging or provided documentation.

AMENDATORY SECTION (Amending WSR 07-01-092, filed 12/19/06, effective 7/1/07)

**WAC 51-52-22006 Chapter 6—Gas piping installation.**

**614.7.1 Protection required.** Protective shield plates shall be provided in accordance with Section 614.6.3.

**WSR 12-16-085**

**PROPOSED RULES**

**BUILDING CODE COUNCIL**

[Filed July 31, 2012, 3:33 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-03-107.

Title of Rule and Other Identifying Information: Adoption and amendment of the 2012 International Fire Code (IFC), chapter 51-54A WAC; and repeal of chapter 51-54 WAC, 2009 IFC, and all related amendments.

Hearing Location(s): Center Place Event Center, 2426 North Discovery Place, Spokane Valley, WA 99216, on September 14, 2012, at 10 a.m.; and at the DES Presentation Room, 1500 Jefferson S.E., Olympia, WA 98504, on September 21, 2012, at 10 a.m.

Date of Intended Adoption: November 9, 2012.

Submit Written Comments to: Ray Allshouse, Chair, State Building Code Council (SBCC), P.O. Box 41449, Olympia, WA 98504-41449 [98504-1449], e-mail sbcc@ga.wa.gov, fax (360) 586-9088, by September 21, 2012.

Assistance for Persons with Disabilities: Contact Peggy Bryden by September 7, 2012, (360) 407-9280.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules adopt the most recently published edition of the IFC with proposed amendments (chapter 51-54A WAC).

These rules replace the 2009 IFC and existing amendments (chapter 51-54 WAC which will be repealed).

Summary of Changes to Existing Rules:

1. Chapter 51-54 WAC will be repealed entirely, including the repeal of all state amendments.

2. Chapter 51-54A WAC will be adopted to include the adoption of the 2012 IFC.

3. The 2012 IFC was completely reorganized and renumbered by the International Code Council (ICC), from forty-seven to eighty chapter headings, with thirty chapters held in reserve for future use.

4. WAC 51-54A-0202 Definitions - this section will consolidate all definitions for the code into one chapter; definitions were previously scattered throughout the various chapters.

5. WAC 51-54A-0300 will duplicate the amendments previously adopted.

6. WAC 51-54A-0400 will duplicate the amendments previously adopted, except for revisions to remove any references to lockdown procedures involving fire service personnel.

7. WAC 51-54A-0500 will duplicate the amendments previously adopted.

8. WAC 51-54A-0600 will revise amendments to Sections 609 and 609.2 regarding Type 1 hoods, and will duplicate the other amendments previously adopted in Sections 600 and 609.3.

9. WAC 51-54A-0800 will duplicate the amendments previously adopted to Sections 806.1.1 and 806.1.2 and Table 806.1.2.

10. WAC 51-54A-0900 will duplicate seven amendments previously adopted; four previously adopted amendments will be deleted. Issues related to carbon monoxide detection devices are modified in Sections 908.7 and 908.7.1.

11. WAC 51-54A-1000 will duplicate the amendments previously adopted.

12. WAC 51-54A-1100 provides two options to address the issue of photoluminescent stair marking requirements.

13. WAC 51-54A-1200 through 51-54A-8000 are renumbered and will mainly duplicate the amendments previously adopted under their old chapter headings.

14. WAC 51-54A-5306 will adopt new medical gas standards.

The remaining changes are in response to editorial changes or reorganizational moves in the 2012 IFC.

**LIST OF PROPOSED CHANGES TO THE 2012 IFC: CHAPTER 51-54A WAC**

	<b>Section</b>	<b>Chapter Title</b>	<b>Notes/Purpose</b>
1.	101	Scope and general requirements	References the appendices.
2.	105	Permits	Permit requirements.
3.	202	General definitions	Provides definitions.
4.	307	Open burning, recreational fires and portable outdoor fireplaces	Specifies permit and approval process for open burning and recreational fires.
5.	308	Open flames	Regulates the use of candles.
6.	401	General	Emergency planning.
7.	402	Definitions	Referring definitions to Chapter 2.
8.	403	Public assemblages and events	Planning for public events.
9.	404	Fire safety and emergency plans	Fire safety and evacuation planning.
10.	405	Emergency drills	Drill requirements.

	<b>Section</b>	<b>Chapter Title</b>	<b>Notes/Purpose</b>
11.	406	Employee training and response procedures	Training requirements.
12.	407	Hazard communication	Special provisions for hazardous materials.
13.	408	Use and occupancy related requirements	Special provisions per occupancy group.
14.	503	Fire apparatus access roads	Local adoption provisions.
15.	507	Fire protection water supplies	Specifies fire flow requirements.
16.	508	Fire command center	Separation requirements.
17.	605	Electrical equipment, wiring and hazards	Solar PV power system requirements not adopted.
18.	609	Commercial kitchen hoods	Specifies type one hood requirements/exceptions.
19.	806	Decorative vegetation - new and existing buildings	Specifies natural cut tree requirements for indoor use.
20.	903	Automatic sprinkler systems	Modifies exceptions in Groups E and R, and clarifies requirements for basements.
21.	907	Fire alarm and detection systems	Specifies requirements for licensed boarding homes.
22.	908	Emergency alarm systems	Specifies requirements/exceptions for CO alarms.
23.	909	Elevator hoistway pressurization alternative	Pressurization system requirements.
24.	915	Alerting systems	Sets standard for alerting systems.
25.	1007	Accessible means of egress	Guidelines for egress in accessible parking spaces.
26.	1008	Doors, gates and turnstiles	Requirements for locks and latches in Group I-2.
27.	1009	Stairways and handrails	Sets requirements/exceptions for certain stairways.
28.	1010	Ramps	Provides exceptions for ramp accessibility.
29.	1018	Corridors	Stipulates how air must move in corridors, and continuity of corridors.
30.	1021	Number of exits and exit configurations	Allows an exception for travel distance where landing platforms for helistops are in place.
31.	1103	Fire safety requirements for existing buildings	Sprinkler requirements for nightclubs and CO alarm requirements for Group I and Group R.
32.	1104	Means of egress for existing buildings	Establishes requirements for photoluminescent stair markings (two options listed).
33.	3601	Marinas—Scope	Marina requirements; move definitions to Chapter 2.
34.	3602	Definitions	Referring definitions to Chapter 2.
35.	3604	Fire protection equipment	Sets requirements for certain firefighting equipment at marinas.
36.	5306	Medical gas systems	Sets standards for compliance with medical gas maintenance and testing.
37.	5601	General	Regulates explosives.
38.	5704	Storage	Underground tank corrosion protection tied to WAC 173-360-305.
39.	5706	Special operations	Requires coordination with department of ecology spill clean-up protocols.
40.	6108	Fire protection	Requirements/exceptions for barbeques on decks.
41.	8000	Referenced standards	Adopts one additional NFPA standard.
42.	8100	Appendix K—Wildland-urban-interface code	Specifies certain fire protection methods between the rural and urban boundaries.

Reasons Supporting Proposal: RCW 19.27.031 and 19.27.074.

Statutory Authority for Adoption: RCW 19.27.031 and 19.27.074.

Statute Being Implemented: Chapters 19.27 and 34.05 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: The council is seeking comments on the issues proposed in the rules shown below.

Name of Proponent: SBCC, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Joanne McCaughan, 1500 Jefferson S.E., P.O. Box 41449, Olympia, WA (360) 9279 [407-9279]; and Enforcement: Local jurisdictions.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

#### Small Business Economic Impact Statement

##### Executive Summary:

**Impact on Small Business:** The proposed rule adopts the updated 2012 edition of the IFC. Since 1985 the SBCC has been required to update to new editions of the building code, per RCW 19.27.074. The ICC updates the codes, including the IFC, every three years. Their process involves development of interest groups within the design and construction industry and from governmental organizations.

The 2012 IFC contains about sixty significant changes as compared to the 2009 IFC. According to the *Proposed Changes to the 2009 Edition of the IFC*, published by the ICC, less than seven percent of the approved amendments result in more than a minor increase in cost of construction; most amendments have no impact on construction costs. The primary effect of the amendments is improvement of the code. The objective of the amendments is to create a consistent regulatory system.

The SBCC appointed a technical advisory group (TAG) to review the 2012 IFC, including the significant changes, the applicability of the existing statewide amendments, and several proposed new state amendments (seven new proposals for 2012, plus two tabled proposals from 2011). The TAG included fire service personnel from the state and local regulatory community, local building officials, representatives of the multifamily housing and construction industries, and the fire protection industry. Small business was represented through these appointments. All TAG meetings are open to the public and small businesses are notified; several chose to participate in the review of code amendment proposals.

These proposed rules are anticipated to be job neutral, although there would be some temporary work for installation jobs for certain trades people, for example, if the luminous path markings requirements are adopted. Where the SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost.

##### **Section I: Introduction/Compliance with the Rules:**

The 2009 IFC with state amendments is currently in effect, codified as chapter 51-54 WAC; for the 2012 code adoption cycle, SBCC staff and the TAG recommend that the newly reorganized IFC be adopted as chapter 51-54A WAC for greater efficiency. For a complete list of all current state amendments to the Fire Code [see this link](#) to the WAC language.

The adopted state amendments add flexibility and clarity to the code. Some of the rules may represent a savings for small business building owners and operators, while other rules may incur costs for these entities.

The 2012 edition of the IFC contains about sixty significant revisions from the current 2009 edition. In addition, several proposed state amendments to the code address specific issues, for example:

Carbon monoxide alarm requirements in residential settings; based on legislative requirements that are more protective/prescriptive than the model code. Minimal new impact since the law has been in effect since 2010.

Luminous egress path markings for existing high rise buildings; following the model code to require the markings would incur costs on existing building owners according to testimony provided to the council in November 2011 and to the fire code TAG. Alternatively, permanent adoption of the current emergency rule, in lieu of adopting the model code language, would exempt existing buildings from the requirement to install luminous markings and thus eliminate cost concerns.

Elevator pressurization; the current state amendment to the IFC is deleted and the language from Section 909.21 of the 2012 International Building Code (IBC) is adopted as a state amendment to the IFC.

Construction costs may increase for some building projects (for anticipated impacts see the small business economic impact statement for the IBC).

New code requirements in the 2012 IFC regarding photo voltaic solar installation were not adopted due in part to anticipated economic impact on the solar industry. The fire code TAG recommended that a special TAG be formed to address the issues and develop proposed language for adoption in 2013; the special TAG will be formed in the fall of 2012.

**Section II: Compliance Costs for Washington Businesses:** The adoption of the updated IFC and state amendments may result in some cost outlay for small businesses in construction industries for specific building projects, for a transition period.

The 2012 edition of the IFC costs \$88 on CD and \$98.75 for a loose leaf binder. The codes are also available to view on-line at no cost. There is also an on-line subscription service available, at a per user cost.

Some small businesses could see an increase in revenue.

The overall impact would be positive, because the 2012 IFC has been completely reorganized to correspond with certain elements and chapters in the IBC. With the reorganization, the new edition will be easier for businesses and local officials to find the information they need to ensure code compliance and building safety. This change will result in greater efficiency in project planning and development, and an anticipated reduction in review and approval times. The degree of impact diminishes during the code cycle as rules become familiar and construction practices adjust and are accepted.

**Costs of Equipment, Supplies, Labor, Professional Services, and Increased Administrative Costs:** The costs for compliance with the 2012 IFC are specific to the project and the plan.

**2012 IFC Chapter 4 Emergency Planning and Preparedness:** In 2009 the SBCC adopted a complete revision of the IFC Chapter 4; that chapter included requirements for Group E lockdown drills and other related responsibilities for fire personnel. The proposed state amendment for 2012 would remove those lockdown-related requirements, which are considered to be the purview and responsibility of the law enforcement community rather than the fire service. This

amendment would have no impact on, and would be cost neutral to, small business.

**2012 IFC Section [M] 609.2 Commercial Kitchen**

**Hoods:** The amendment was referred by the mechanical TAG. It is a clarification of the requirements for hood types and provides a table to identify the type of hood required for domestic cooking, based on the use of the space and the type of cooking. It provides for an additional exception to eliminate the need for a hood where certain electric cooking appliances are being used, but do not produce heavy grease laden vapors as documented by an approved testing agency. There would be some savings to certain businesses that would no longer need to install a Type 1 hood.

**Assumptions:**

- **EQUIPMENT: TYPE TWO HOODS ARE LESS EXPENSIVE.**
- **SUPPLIES: N/A.**
- **MATERIAL: LABOR: N/A.**
- **PROFESSIONAL SERVICES: FEWER INSPECTIONS WOULD BE REQUIRED.**
- **ADMINISTRATIVE COSTS: LESS RECORDKEEPING WOULD BE REQUIRED.**

**Impact on Sales or Revenue:** The impact will be neutral as hoods will still be required, but for some businesses the cost of the Type 2 hood will be lower as compared to the Type 1 hood previously required. There would be a one-time cost associated with obtaining documentation.

**2012 IFC Section 903.2.11.1.3 Basements:**

The 2012 IFC modified language requiring fire sprinklers in basements where certain obstructions are present that restrict the application of water from hose streams; the state amendment modifies the language to situations where the exit access travel distance is increased beyond seventy-five feet. This proposed modification is cost neutral.

**2012 IFC Section 1104.24 Egress Path Markings:**

The 2012 IFC requires installation of photoluminescent marking systems in the stairways of existing high-rise buildings except for certain historic buildings. The SBCC has previously adopted an emergency rule to eliminate this requirement due to cost concerns expressed by some building owners. In response, photoluminescent industry representatives provided information to the TAG on May 4, 2012, indicating that there is a broad range of products available, and that the products can be installed at a reasonable price. While cost estimates range from \$1,400 to \$5,000 per stairwell per floor, actual installation experience has shown costs to be lower. For example, a hospital recently installed the materials at a cost of \$954 per stairwell. According to the PLA, costs for nine recent projects averaged \$1,277 per stairwell. Given this information, the TAG recommended that the luminescent markings should be required in high rise buildings with the adoption of the 2012 Fire Code.

**Assumptions:**

- **EQUIPMENT: MECHANICAL APPLICATION OF PRODUCTS AND MATERIALS.**
- **SUPPLIES: VARIABLE ACCORDING TO THE NEEDS OF THE CUSTOMER.**
- **MATERIAL: VARIABLE ACCORDING TO THE SPECIFIC LOCATION.**

- **LABOR: FIRE PROTECTION SPECIALISTS TO ENSURE INSTALLATION IS ACCORDING TO PUBLISHED SPECIFICATIONS AND STANDARDS.**
- **PROFESSIONAL SERVICES: BIDDING BY FIRE STOP CONTRACTOR TO IDENTIFY OPTIONS AND ENSURE APPROPRIATE SYSTEMS/PRODUCTS ARE USED.**
- **ADMINISTRATIVE COSTS: ONGOING MAINTENANCE TO ENSURE RELIABILITY.**

**2012 IFC Section 5306.4 Medical Gas Systems:** Specifies that maintenance and testing of medical gas systems must comply with the maintenance and testing requirements of NFPA 99; this amendment is provided as clarification. This proposed modification is cost neutral.

**Section III: Analysis of Proportionate Impact on Small Businesses.**

**The Impact on Small Businesses Compared to the Largest Businesses in the State Will Not Be Disproportionate:** The cost of compliance is a proportionate incremental cost, in relation to hours of labor, or costs per employee. The incremental cost of meeting the 2012 IFC, will have a proportionate impact on building and construction businesses. Building projects tend to be unique to type of construction, building type, building site, as well as size of the project. Costs for design and construction will be distributed among the general contractors and subcontractors. Further, construction industry businesses fit primarily into the category of small business. Where an industry has a significant number of large businesses, the costs of compliance for large businesses are proportional to the number of employees in any size business. The majority of Washington state firms in the design and construction fields qualify as small businesses. The incremental costs of meeting the 2012 Fire Code are generally proportionate between large and small businesses.

**Section IV: Small Business Involvement and Impact Reduction Efforts:**

A representative of the construction industry served on the IFC TAG. Members of the luminescent marking industry provided information to the TAG regarding the code requirements for existing buildings in the IFC. Representatives of the housing industry also served on the TAG and discussed impacts.

**Section V: Number of Affected Businesses in Washington:**

Businesses Impacted by Updated Fire Code			
Type of Business	NAICS CODE #	# IN STATE (UP TO 49 Employees)	# IN STATE (50 OR MORE Employees)
Multifamily Housing Construction	236116	77	0
Industrial Building Construction	236210	89	6
Commercial and Institutional Building Construction	236220	1305	40
Roofing Contractors	238160	973	7
Architects	541310	602	16
Engineers	541330	1665	96
Testing Labs	541380	191	14
Fire Protection	922160	258	6

**Section VI: Jobs Created or Lost as a Result of These Rules:** These rules are likely to be job neutral overall, i.e.,

they will not result in any job gains or losses. The installation of photoluminescent markings would provide temporary employment in the fire stop industry to install the material in existing high rise buildings throughout the state. The estimated number of existing high rise buildings in Washington state is one hundred ninety-one, according to the web site of Emporis a "global provider of building information." It is unknown how many of those buildings already have installed photoluminescent marking products.

According to the Firestop Contractors International Association, in some cases it may be possible for building maintenance personnel to install the materials according to the manufacturers' instructions. However, according to most manufacturers a certified installer who has been trained in the application specifications is preferred. This is to ensure surface preparation and other requirements are addressed, as well as specific location for the materials and devices. This ensures that products will perform well throughout the life of the product without undue maintenance costs.

A copy of the statement may be obtained by contacting Joanne T. McCaughan, P.O. Box 41449, Olympia, WA 98504-1449, phone (360) 407-9279, fax (360) 586-9088, e-mail joanne.mccaughan@des.wa.gov. See the small business economic impact statement by following this link: 2012 Fire Code SBEIS.

The SBCC is not one of the agencies identified as required to prepare a school district impact statement.

A cost-benefit analysis is not required under RCW 34.05.328. The SBCC is not one of the agencies identified as required to prepare an analysis.

July 31, 2012  
C. Ray Allshouse  
Council Chair

### Chapter 51-54A WAC

## STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE 2012 EDITION OF THE INTERNATIONAL FIRE CODE

### NEW SECTION

**WAC 51-54A-001 Authority.** These rules are adopted under the authority of chapter 19.27 RCW.

### NEW SECTION

**WAC 51-54A-002 Purpose.** The purpose of these rules is to implement the provisions of chapter 19.27 RCW, which provides that the State Building Code Council shall maintain the State Building Code in a status which is consistent with the purpose as set forth in RCW 19.27.020. In maintaining the codes the council shall regularly review updated versions of the codes adopted under the act, and other pertinent information, and shall amend the codes as deemed appropriate by the council.

### NEW SECTION

**WAC 51-54A-003 International Fire Code.** The 2012 edition of the International Fire Code, published by the International Code Council is hereby adopted by reference with the following additions, deletions, and exceptions.

### NEW SECTION

**WAC 51-54A-007 Exceptions.** The exceptions and amendments to the International Fire Code contained in the provisions of chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

Codes referenced which are not adopted through RCW 19.27.031 or chapter 19.27A RCW shall not apply unless specifically adopted by the authority having jurisdiction. The 2012 International Wildland Urban Interface Code is included in this code as Section 8100 with amendments found in Appendix Chapter K.

The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under chapter 70.114A RCW or chapter 37, Laws of 1998 (2SSB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.

The manufacture, storage, handling, sale and use of fireworks shall be governed by chapter 70.77 RCW and by chapter 212-17 WAC and local ordinances consistent with chapter 212-17 WAC.

### NEW SECTION

**WAC 51-54A-008 Implementation.** The International Fire Code adopted by chapter 51-54A WAC shall become effective in all counties and cities of this state on July 1, 2013.

### NEW SECTION

**WAC 51-54A-0101 Section 101—Scope and general requirements.**

**101.2.1 Appendices.** Provisions in the appendices shall not apply unless specifically adopted. The State Building Code Council has determined that a local ordinance adopting Appendix K Wildland Urban Interface Code may be adopted by any local government upon notification of the council.

NEW SECTION**WAC 51-54A-0105 Permits.****SECTION 105 SCOPE AND GENERAL REQUIREMENTS**

**105.1.1 Permits required.** Any property owner or authorized agent who intends to conduct an operation or business, or install or modify systems and equipment, which is regulated by this code, or to cause any such work to be done shall first make application to the fire code official and obtain the required permit.

NEW SECTION**WAC 51-54A-0202 General definitions.****SECTION 202 GENERAL DEFINITIONS**

**ADULT FAMILY HOME** means a dwelling in which a person or persons provide personal care, special care, room and board to more than one but not more than six adults who are not related by blood or marriage to the person or persons providing the services.

**ALERT SIGNAL.** A distinctive signal indicating the need for trained personnel and occupants to initiate a specific action, such as shelter-in-place.

**ALERT SYSTEM.** Approved devices, equipment and systems or combinations of systems used to transmit or broadcast an alert signal.

**CHILD DAY CARE,** shall, for the purposes of these regulations, mean the care of children during any period of a 24-hour day.

**COVERED BOAT MOORAGE** is a pier or system of floating or fixed access ways to which vessels on water may be secured and any portion of which are covered by a roof.

**ELECTRICAL CODE** is the National Electrical Code, promulgated by the National Fire Protection Association, as adopted by rule or local ordinance under the authority of chapter 19.28 RCW.

**EMERGENCY DRILL.** An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency procedures.

**EXISTING.** Buildings, facilities or conditions that are already in existence, constructed or officially authorized prior to the adoption of this code.

**FAMILY CHILD DAY CARE HOME** is a child day care facility, licensed by the state, located in the dwelling of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home.

**GRAVITY-OPERATED DROP OUT VENTS** are automatic smoke and heat vents containing heat-sensitive glazing designed to shrink and drop out of the vent openings when exposed to fire.

**HOSPICE CARE CENTERS.** A building or portion thereof used on a 24-hour basis for the provision of hospice services to terminally ill inpatients.

**MOTOR VEHICLE.** Includes, but not limited to, a vehicle, machine, tractor, trailer or semitrailer, or any combination thereof, propelled or drawn by mechanical power and designed for use upon the highways in the transportation of passengers or property. It does not include a vehicle, locomotive or car operated exclusively on a rail or rails, or a trolley bus operated by electric power derived from a fixed overhead wire, furnishing local passenger transportation similar to street-railway service. The term "motor vehicle" also includes freight containers or cargo tanks used, or intended for use, in connection with motor vehicles.

**NIGHTCLUB.** An A-2 Occupancy use under the 2006 International Building Code in which the aggregate area of concentrated use of unfixed chairs and standing space that is specifically designated and primarily used for dancing or viewing performers exceeds three hundred fifty square feet, excluding adjacent lobby areas. "Nightclub" does not include theaters with fixed seating, banquet halls, or lodge halls.

**OCCUPANCY CLASSIFICATION.** For the purposes of this code, certain occupancies are defined as follows:

**Educational Group E.** Educational Group E Occupancy includes, among others, the use of a building or structure, or a portion thereof, by six or more persons at any one time for educational purposes through the 12th grade. Religious educational rooms and religious auditoriums, which are accessory to places of religious worship in accordance with Section 508.3.1 of the International Building Code and have occupant loads of less than 100, shall be classified as Group A-3 occupancies.

**DAY CARE.** The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than five children older than 2 1/2 years of age, shall be classified as an E Occupancy.

**EXCEPTION:** Family child day care homes licensed by the state of Washington for the care of twelve or fewer children shall be classified as Group R-3.

**Institutional Group I.** Institutional Group I Occupancy includes, among others, the use of a building or structure, or a portion thereof, in which people are cared for or live in a supervised environment, having physical limitations because of health or age, are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.

**Group I-1.** This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Convalescent facilities
- Group homes

Halfway houses  
Residential board and care facilities  
Social rehabilitation facilities

A facility such as the above with five or fewer persons and adult family homes licensed by Washington state shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2 of the International Building Code.

A facility such as the above, providing licensed care to clients in one of the categories listed in IBC Section 310.1 licensed by Washington state shall be classified as Group R-2.

**Group I-2.** This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care for persons who are not capable of self-preservation. This group shall include, but not be limited to, the following:

Child care facilities  
Detoxification facilities  
Hospice care centers  
Hospitals  
Mental hospitals  
Nursing homes

A facility such as the above providing licensed care to clients in one of the categories listed in IBC Section 310.1 licensed by Washington state shall be classified as Group R-2.

**Group I-3.** (Remains as printed in the IFC.)

**Group I-4. Day care facilities.** This group shall include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for. A facility such as the above with five or fewer persons shall be classified as Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2 of the International Building Code. Places of worship during religious functions are not included.

**Adult care facility.** A facility that provides accommodations for less than 24 hours for more than five unrelated adults and provides supervision and personal care services shall be classified as Group I-4.

**EXCEPTION:** Where the occupants are capable of responding to an emergency situation without physical assistance from the staff, the facility shall be classified as Group R-3.

**Child care facility.** Child care facilities that provide supervision and personal care on a less than 24-hour basis for more than five children 2 1/2 years of age or less shall be classified as Group I-4.

**EXCEPTIONS:**

1. A child day care facility that provides care for more than five but no more than 100 children 2 1/2 years or less of age, where the rooms in which the children are cared for are located on a level of exit discharge serving such rooms and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.
2. Family child day care homes licensed by Washington state for the care of 12 or fewer children shall be classified as Group R-3.

**Residential Group R.** Residential Group R includes, among others, the use of a building or structure, or a portion thereof,

for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code* in accordance with Section 101.2 of the International Building Code. Residential occupancies shall include the following:

**R-1** Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Boarding houses (transient)  
Hotels (transient)  
Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

**R-2** Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses  
Boarding houses (nontransient)  
Boarding homes as licensed by Washington state under chapter 388-78A WAC

Convents  
Dormitories  
Fraternities and sororities  
Hotels (nontransient)  
Live/work units  
Motels (nontransient)  
Monasteries

Residential treatment facilities as licensed by Washington state under chapter 246-337 WAC

Vacation timeshare properties

Congregate living facilities with sixteen or fewer occupants are permitted to comply with the construction requirements for Group R-3.

**R-3** Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including: Buildings that do not contain more than two dwelling units. Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours. Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours. Congregate living facilities with sixteen or fewer persons. Adult care within a single-family home, adult family homes and family child day care homes are permitted to comply with the *International Residential Code*.

Foster family care homes licensed by Washington state are permitted to comply with the *International Residential Code*, as an accessory use to a dwelling, for six or fewer children including those of the resident family.

**R-4** Classification is not adopted. Any reference in this code to R-4 does not apply.

**PORTABLE SCHOOL CLASSROOM.** A structure, transportable in one or more sections, which requires a chassis to be transported, and is designed to be used as an educational space with or without a permanent foundation. The structure shall be trailerable and capable of being demounted and relocated to other locations as needs arise.

**RECALL SIGNAL.** An electrically or mechanically operated signal used to recall occupants after an emergency drill or to



terminate a shelter-in-place event that shall be distinct from any alarm or alert signal used to initiate an emergency plan, or other signals.

**SHELTER-IN-PLACE.** An emergency response used to minimize exposure of facility occupants to chemical or environmental hazards by taking refuge in predetermined interior rooms or areas where actions are taken to isolate the interior environment from the exterior hazard.

#### NEW SECTION

#### **WAC 51-54A-0307 Open burning, recreational fires and portable outdoor fireplaces.**

**307.2.1 Authorization.** Where required by state or local law or regulations, open burning shall only be permitted with prior approval from the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed. See also chapter 173-425 WAC.

**307.4.2 Recreational fires.** Recreational fires shall not be conducted within 25 feet of a structure or combustible material. Conditions which could cause a fire to spread within 25 feet of a structure shall be eliminated prior to ignition. See also chapter 173-425 WAC.

#### NEW SECTION

#### **WAC 51-54A-0308 Open flames.**

**308.1.4 Open-flame cooking devices.** This section is not adopted.

**308.1.7 Religious ceremonies.** Participants in religious ceremonies shall not be precluded from carrying hand-held candles. See RCW 19.27.031(3).

**308.1.9 Aisles and exits.** Candles shall be prohibited in areas where occupants stand, or in an aisle or exit.

EXCEPTION: Candles used in religious ceremonies.

#### NEW SECTION

#### **WAC 51-54A-0401 General.**

**401.1 Scope.** Reporting of emergencies, coordination with emergency response forces, emergency plans and procedures for managing or responding to emergencies shall comply with the provisions of this section.

EXCEPTION: Firms that have approved on-premises firefighting organizations and that are in compliance with approved procedures for fire reporting.

**401.2 Approval.** Where required by the fire code official, fire safety plans, emergency procedures and employee training programs shall be approved.

**401.3 Emergency responder notification.** Notification of emergency responders shall be in accordance with Sections 401.3.1 through 401.3.3.

**401.3.1 Fire events.** In the event an unwanted fire occurs on a property, the owner or occupant shall immediately report such condition to the fire department.

**401.3.2 Alarm activations.** Upon activation of a fire alarm signal, employees or staff shall immediately notify the fire department.

**401.3.3 Delayed notification.** A person shall not, by verbal or written directive, require any delay in the reporting of a fire to the fire department.

**401.4 Required plan implementation.** In the event an unwanted fire is detected in a building or a fire alarm activates, the emergency plan shall be implemented.

**401.5 Making false report.** A person shall not give, signal or transmit a false alarm.

**401.6 Emergency evacuation drills.** The sounding of a fire alarm signal and the carrying out of an emergency evacuation drill in accordance with the provisions of Section 405 shall be allowed.

**401.7 Unplanned evacuation.** Evacuations made necessary by the unplanned activation of a fire alarm system or by any other emergency shall not be substituted for a required evacuation drill.

**401.8 Interference with fire department operations.** It shall be unlawful to interfere with, attempt to interfere with, conspire to interfere with, obstruct or restrict the mobility of or block the path of travel of a fire department emergency vehicle in any way, or to interfere with, attempt to interfere with, conspire to interfere with, obstruct or hamper any fire department operation.

#### NEW SECTION

**WAC 51-54A-0402 Definitions.** The following terms are defined in Chapter 2:

**ALARM SIGNAL.**

**ALERT SIGNAL.**

**ALERT SYSTEM.**

**EMERGENCY DRILL.**

**SHELTER-IN-PLACE.**

**RECALL SIGNAL.**

#### NEW SECTION

#### **WAC 51-54A-0403 Public assemblages and events.**

**403.1 Fire watch personnel.** When, in the opinion of the fire code official, it is essential for public safety in a place of assembly or any other place where people congregate, because of the number of persons, or the nature of the performance, exhibition, display, contest or activity, the owner, agent or lessee shall provide one or more fire watch personnel, as required and approved, to remain on duty during the times such places are open to the public, or when such activity is being conducted.

**403.1.1 Duties.** Fire watch personnel shall keep diligent watch for fires, obstructions to means of egress and other hazards during the time such place is open to the public or such activity is being conducted and take prompt measures for remediation of hazards, extinguishment of fires that occur and assist in the evacuation of the public from the structures.

**403.2 Public safety plan.** In other than Group A or E occupancies, where the fire code official determines that an indoor or outdoor gathering of persons has an adverse impact on public safety through diminished access to buildings, structures, fire hydrants and fire apparatus access roads or where such gatherings adversely affect public safety services of any kind, the fire code official shall have the authority to order the development of, or prescribe a plan for, the provision of an approved level of public safety.

**403.2.1 Contents.** The public safety plan, where required by Section 403.2, shall address such items as emergency vehicle ingress and egress, fire protection, emergency medical services, public assembly areas and the directing of both attendees and vehicles (including the parking of vehicles), vendor and food concession distribution, and the need for the presence of law enforcement, and fire and emergency medical services personnel at the event.

**403.3 Crowd managers.** Trained crowd managers shall be provided for facilities or events where more than 1,000 persons congregate. The minimum number of crowd managers shall be established at a ratio of one crowd manager to every 250 persons. Where approved by the fire code official, the ratio of crowd managers shall be permitted to be reduced where the facility is equipped throughout with an approved automatic sprinkler system or based upon the nature of the event.

#### NEW SECTION

#### **WAC 51-54A-0404 Fire safety and emergency plans.**

**404.1 General.** Fire safety, evacuation, shelter-in-place plans and associated drills shall comply with the requirements of Sections 404.2 through 404.5.1.

**404.2 Fire safety and evacuation plans.** Fire safety and evacuation plans shall comply with the requirements of Sections 404.2.1 through 404.2.2.2.

**404.2.1 Where required.** An approved fire safety and evacuation plan shall be prepared and maintained for the following occupancies and buildings.

1. Group A having an occupant load of 100 or more.
2. Group B buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
3. Group E.
4. Group F buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
5. Group H.
6. Group I.
7. Group R-1.

8. Group R-2 college and university buildings. Boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.

9. High-rise buildings.

10. Group M buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.

11. Covered malls exceeding 50,000 square feet (4645 m<sup>2</sup>) in aggregate floor area.

12. Underground buildings.

13. Buildings with an atrium and having an occupancy in Group A, E or M.

**404.2.2 Contents.** Fire evacuation and safety plan contents shall be in accordance with Sections 404.2.2.1 and 404.2.2.2.

**404.2.2.1 Fire evacuation plans.** Fire evacuation plans shall include the following:

1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.

2. Procedures for employees who must remain to operate critical equipment before evacuating.

3. Procedures for assisted rescue for persons unable to use the general means of egress unassisted.

4. Procedures for accounting for employees and occupants after evacuation has been completed.

5. Identification and assignment of personnel responsible for rescue or emergency medical aid.

6. The preferred and any alternative means of notifying occupants of a fire.

7. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.

8. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.

9. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.

**404.2.2.2 Fire safety plans.** Fire safety plans shall include the following:

1. The procedure for reporting a fire or other emergency.

2. The life safety strategy and procedures for notifying, relocating or evacuating occupants, including occupants who need assistance.

3. Site plans indicating the following:

3.1. The occupancy assembly point.

3.2. The locations of fire hydrants.

3.3. The normal routes of fire department vehicle access.

4. Floor plans identifying the locations of the following:

4.1. Exits.

4.2. Primary evacuation routes.

4.3. Secondary evacuation routes.

4.4. Accessible egress routes.

4.5. Areas of refuge.

4.6. Exterior areas for assisted rescue.

4.7. Manual fire alarm boxes.

4.8. Portable fire extinguishers.

4.9. Occupant-use hose stations.

4.10. Fire alarm annunciators and controls.

5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.

6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.

7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.

**404.3 Shelter-in-place plans.** Shelter-in-place plans shall comply with the requirements of Sections 404.3.1 through 404.3.2.

**404.3.1 Where required.** A shelter-in-place plan shall be prepared and maintained for all Group E occupancies.

EXCEPTION: Day cares not collocated on a Group E campus.

**404.3.2 Shelter-in-place plan contents.** Shelter-in-place plans shall include the following:

1. Identification of the procedures of initiating the shelter-in-place plan throughout the facility or campus.

2. Identification of prearranged alert and recall signals to notify all occupants.

3. Identification of procedures for reporting the facility is sheltering-in-place to the local emergency dispatch center.

4. A means of two-way communication between a central location and each secure area, and consideration for maintaining means of communication in absence of primary power.

5. Identification of protective security measures.

6. Location of emergency supplies.

7. Accountability procedures for staff to report the presence or absence of occupants.

8. Identification of crisis response team members in accordance with the National Incident Management System.

9. Actions to be taken in the event of a fire or medical emergency while sheltering-in-place.

**404.4 Maintenance.** Emergency plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy or the physical arrangement of the building.

**404.5 Availability.** Emergency plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review upon request.

**404.5.1 Distribution.** The fire safety and evacuation plans shall be distributed to the tenants and building service employees by the owner or owner's agent. Tenants shall distribute to their employees applicable parts of the fire safety plan affecting the employees' actions in the event of a fire or other emergency.

NEW SECTION

**WAC 51-54A-0405 Emergency drills.**

**405.1 General.** Emergency drills complying with the provisions of this section shall be conducted at least annually in the occupancies listed in Section 404.2.1 or when required by the

fire code official. Drills shall be designed in cooperation with the local authorities.

**405.2 Frequency.** Required emergency drills shall be held at the intervals specified in Table 405.2 or more frequently where necessary to familiarize all occupants with the drill procedure.

**405.2.1 Group E occupancies.** The occupancy shall conduct at a minimum the following drills during the year:

1. One drill using the school mapping information system.

EXCEPTION: Day cares not collocated on a school campus.

2. Six fire evacuation drills.
3. One shelter-in-place drill.

**Table 405.2  
Emergency Drill Frequency and Participation**

Group or Occupancy	Frequency	Participation
Group A	Quarterly	Employees
Group B <sup>c</sup>	Annually	Employees
Group E	Monthly <sup>a,e</sup>	All Occupants
Group F	Annually	Employees
Group I	Quarterly on each shift	Employees <sup>b</sup>
Group R-1	Quarterly on each shift	Employees
Group R-2 <sup>f</sup>	Quarterly on each shift	Employees
Group R-2 <sup>d</sup>	Four Annually	All Occupants
High-rise buildings	Annually	Employees

<sup>a</sup>The frequency shall be allowed to be modified in accordance with Section 408.3.2.

<sup>b</sup>Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises in accordance with Section 408.10.5. Where occupants receive habilitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program.

<sup>c</sup>Group B buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.

<sup>d</sup>Applicable to Group R-2 college and university buildings in accordance with Section 408.3.

<sup>e</sup>Day cares collocated on a Group E campus shall participate in emergency drills occurring on the campus.

<sup>f</sup>Applicable to boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.

**405.3 Leadership.** Responsibility for the planning and conduct of drills shall be assigned to competent persons designated to exercise leadership.

**405.4 Time.** Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of an emergency.

**405.5 Recordkeeping.** Records shall be maintained of required emergency evacuation drills and include the following information:

1. Identity of the person conducting the drill.
2. Date and time of the drill.
3. Notification method used.
4. Staff members on duty and participating.
5. Number of occupants participating.
6. Special conditions simulated.
7. Problems encountered and corrective actions taken.
8. Weather conditions when occupants were evacuated.
9. Time required to accomplish complete evacuation, or shelter-in-place.

**405.6 Notification.** Where required by the fire code official, prior notification of emergency drills shall be given to the fire code official.

**405.7 Initiation.** Emergency drills shall be initiated in accordance with Sections 405.7.1 through 405.7.2.

**405.7.1 Fire evacuation drills.** Where a fire alarm system is provided, emergency evacuation drills shall be initiated by activating the fire alarm system. The fire alarm monitoring company shall be notified prior to the activation of the fire alarm system for drills proposed and again at the conclusion of the transmission and restoration of the fire alarm system to normal mode.

EXCEPTION: Drills conducted between the hours of 9:00 p.m. and 6:00 a.m., in Group R-2 boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.

**405.7.2 Shelter-in-place drills.** Shelter-in-place drills shall be initiated by the shelter-in-place alert signal, generated by the alerting system in accordance with Section 915.

**405.8 Accountability.** As building occupants arrive at the assembly point, efforts shall be made to determine if all occupants have been successfully evacuated and/or have been accounted for in the shelter-in-place.

**405.9 Recall and reentry.** The recall signal initiation shall be manually operated and under the control of the person in charge of the premises or the official in charge of the incident. No one shall reenter the premises until authorized to do so by the official in charge.

#### NEW SECTION

**WAC 51-54A-0406 Employee training and response procedures.**

**406.1 General.** Employees in the occupancies listed in Section 404.2.1 shall be trained in the emergency procedures described in their emergency plans. Training shall be based on these plans and as described in Section 404.2 and 404.3.

**406.2 Frequency.** Employees shall receive training in the contents of the emergency plans and their duties as part of new employee orientation and at least annually thereafter. Records shall be kept and made available to the fire code official upon request.

**406.3 Employee training program.** Employees shall be trained in fire prevention, evacuation, sheltering-in-place, and fire safety in accordance with Sections 406.3.1 through 406.3.4.

**406.3.1 Fire prevention training.** Employees shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be instructed in the proper procedures for preventing fires in the conduct of their assigned duties.

**406.3.2 Evacuation training.** Employees shall be familiarized with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas and procedures for evacuation.

**406.3.3 Emergency shelter-in-place training.** Where a facility has a shelter-in-place plan, employees shall be trained on the alert and recall signals, communication system, location of emergency supplies, the use of the incident notification and alarm system, and their assigned duties and procedures in the event of an alarm or emergency.

**406.3.4 Fire safety training.** Employees assigned firefighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual firefighting equipment and the protective clothing or equipment required for its safe and proper use.

#### NEW SECTION

**WAC 51-54A-0407 Hazard communication.**

**407.1 General.** The provisions of Sections 407.2 through 407.7 shall be applicable where hazardous materials subject to permits under Section 2701.5 are located on the premises or where required by the fire code official.

**407.2 Material safety data sheets.** Material safety data sheets (MSDS) for all hazardous materials shall be either readily available on the premises as a paper copy, or where approved, shall be permitted to be readily retrievable by electronic access.

**407.3 Identification.** Individual containers of hazardous materials, cartons or packages shall be marked or labeled in accordance with applicable federal regulations. Buildings, rooms and spaces containing hazardous materials shall be identified by hazard warning signs in accordance with Section 2703.5.

**407.4 Training.** Persons responsible for the operation of areas in which hazardous materials are stored, dispensed, handled or used shall be familiar with the chemical nature of the materials and the appropriate mitigating actions necessary in the event of a fire, leak or spill. Responsible persons shall be designated and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses and identification of the locations where hazardous materials are located, and shall have access to material safety data sheets and be knowledgeable in the site emergency response procedures.

**407.5 Hazardous materials inventory statement.** Where required by the fire code official, each application for a permit shall include a hazardous materials inventory statement (HMIS) in accordance with Section 2701.5.2.

**407.6 Hazardous materials management plan.** Where required by the fire code official, each application for a permit shall include a hazardous materials management plan (HMMP) in accordance with Section 2701.5.1. The fire code official is authorized to accept a similar plan required by other regulations.

**407.7 Facility closure plans.** The permit holder or applicant shall submit to the fire code official a facility closure plan in accordance with Section 2701.6.3 to terminate storage, dispensing, handling or use of hazardous materials.

#### NEW SECTION

#### **WAC 51-54A-0408 Use and occupancy-related requirements.**

**408.1 General.** In addition to the other requirements of this chapter, the provisions of this section are applicable to specific occupancies listed herein.

**408.2 Group A occupancies.** Group A occupancies shall comply with the requirements of Sections 408.2.1 and 408.2.2 and Sections 401 through 406.

**408.2.1 Seating plan.** The fire safety and evacuation plans for assembly occupancies shall include the information required by Section 404.3 and a detailed seating plan, occupant load and occupant load limit. Deviations from the approved plans shall be allowed provided the occupant load limit for the occupancy is not exceeded and the aisles and exit accessways remain unobstructed.

**408.2.2 Announcements.** In theaters, motion picture theaters, auditoriums and similar assembly occupancies in Group A used for noncontinuous programs, an audible announcement shall be made not more than 10 minutes prior to the start of each program to notify the occupants of the location of the exits to be used in the event of a fire or other emergency.

**EXCEPTION:** In motion picture theaters, the announcement is allowed to be projected upon the screen in a manner approved by the fire code official.

**408.3 Group E occupancies and Group R-2 college and university buildings.** Group E occupancies shall comply with the requirements of Sections 408.3.1 through 408.3.4 and Sections 401 through 406. Group R-2 college and university buildings shall comply with the requirements of Sections 408.3.1 and 408.3.3 and Sections 401 through 406.

**408.3.1 First emergency evacuation drill.** The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of classes.

**408.3.2 Emergency evacuation drill deferral.** In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency specified in Section 405.2.

**408.3.3 Time of day.** Emergency evacuation drills shall be conducted at different hours of the day or evening, during the changing of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires. In Group R-2 college and university buildings, one required drill shall be held during hours after sunset or before sunrise.

**408.3.4 Assembly points.** Outdoor assembly areas shall be designated and shall be located a safe distance from the building being evacuated so as to avoid interference with fire department operations. The assembly areas shall be arranged to keep each class separate to provide accountability of all individuals.

**408.4 Group H-5 occupancies.** Group H-5 occupancies shall comply with the requirements of Sections 408.4.1 through 408.4.4 and Sections 401 through 407.

**408.4.1 Plans and diagrams.** In addition to the requirements of Sections 404 and 407.6, plans and diagrams shall be maintained in approved locations indicating the approximate plan for each area, the amount and type of HPM stored, handled and used, locations of shutoff valves for HPM supply piping, emergency telephone locations and locations of exits.

**408.4.2 Plan updating.** The plans and diagrams required by Section 408.4.1 shall be maintained up to date and the fire code official and fire department shall be informed of all major changes.

**408.4.3 Emergency response team.** Responsible persons shall be designated the on-site emergency response team and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses, identifying locations where HPM is stored, handled and used, and be familiar with the chemical nature of such material. An adequate number of personnel for each work shift shall be designated.

**408.4.4 Emergency drills.** Emergency drills of the on-site emergency response team shall be conducted on a regular basis but not less than once every three months. Records of drills conducted shall be maintained.

**408.5 Group I-1 occupancies.** Group I-1 occupancies shall comply with the requirements of Sections 408.5.1 through 408.5.5 and Sections 401 through 406.

**408.5.1 Fire safety and evacuation plan.** The fire safety and evacuation plan required by Section 404 shall include special staff actions including fire protection procedures necessary for residents and shall be amended or revised upon admission of any resident with unusual needs.

**408.5.2 Staff training.** Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff at least every two months. A copy of the plan shall be readily available at all times within the facility.

**408.5.3 Resident training.** Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the res-

ident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

**408.5.4 Drill frequency.** Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements of Section 405.4.

**408.5.5 Resident participation.** Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point.

**408.6 Group I-2 occupancies.** Group I-2 occupancies shall comply with the requirements of Sections 408.6.1 and 408.6.2 and Sections 401 through 406. Drills are not required to comply with the time requirements of Section 405.4.

**408.6.1 Evacuation not required.** During emergency evacuation drills, the movement of patients to safe areas or to the exterior of the building is not required.

**408.6.2 Coded alarm signal.** When emergency evacuation drills are conducted after visiting hours or when patients or residents are expected to be asleep, a coded announcement is allowed instead of audible alarms.

**408.7 Group I-3 occupancies.** Group I-3 occupancies shall comply with the requirements of Sections 408.7.1 through 408.7.4 and Sections 401 through 406.

**408.7.1 Employee training.** Employees shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment. Training of new staff shall be provided promptly upon entrance on duty. Refresher training shall be provided at least annually.

**408.7.2 Staffing.** Group I-3 occupancies shall be provided with 24-hour staffing. Staff shall be within three floors or 300 feet (91,440 mm) horizontal distance of the access door of each resident housing area. In Use Conditions 3, 4 and 5, as defined in Chapter 2, the arrangement shall be such that the staff involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within 2 minutes of an alarm.

**EXCEPTION:** Staff shall not be required to be within three floors or 300 feet (91,440 mm) in areas in which all locks are unlocked remotely and automatically in accordance with Section 408.4 of the International Building Code.

**408.7.3 Notification.** Provisions shall be made for residents in Use Conditions 3, 4 and 5, as defined in Chapter 2, to readily notify staff of an emergency.

**408.7.4 Keys.** Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.

**408.8 Group R-1 occupancies.** Group R-1 occupancies shall comply with the requirements of Sections 408.8.1 through 408.8.3 and Sections 401 through 406.

**408.8.1 Evacuation diagrams.** A diagram depicting two evacuation routes shall be posted on or immediately adjacent to every required egress door from each hotel, motel or dormitory sleeping unit.

**408.8.2 Emergency duties.** Upon discovery of a fire or suspected fire, hotel, motel and dormitory employees shall perform the following duties:

1. Activate the fire alarm system, where provided.
2. Notify the public fire department.
3. Take other action as previously instructed.

**408.8.3 Fire safety and evacuation instructions.** Information shall be provided in the fire safety and evacuation plan required by Section 404 to allow guests to decide whether to evacuate to the outside, evacuate to an area of refuge, remain in place, or any combination of the three.

**408.9 Group R-2 occupancies.** Group R-2 occupancies shall comply with the requirements of Sections 408.9.1 through 408.9.3 and Sections 401 through 406.

**408.9.1 Emergency guide.** A fire emergency guide shall be provided which describes the location, function and use of fire protection equipment and appliances accessible to residents, including fire alarm systems, smoke alarms, and portable fire extinguishers. The guide shall also include an emergency evacuation plan for each dwelling unit.

**408.9.2 Maintenance.** Emergency guides shall be reviewed and approved in accordance with Section 401.2.

**408.9.3 Distribution.** A copy of the emergency guide shall be given to each tenant prior to initial occupancy.

**408.10 Group R-4 occupancies.** This section is not adopted.

**408.11 Covered mall buildings.** Covered mall buildings shall comply with the provisions of Sections 408.11.1 through 408.11.3.

**408.11.1 Lease plan.** A lease plan shall be prepared for each covered mall building. The plan shall include the following information in addition to that required by Section 404.3.2:

1. Each occupancy, including identification of tenant.
2. Exits from each tenant space.
3. Fire protection features, including the following:
  - 3.1. Fire department connections.
  - 3.2. Fire command center.
  - 3.3. Smoke management system controls.
  - 3.4. Elevators, elevator machine rooms and controls.
  - 3.5. Hose valve outlets.
  - 3.6. Sprinkler and standpipe control valves.
  - 3.7. Automatic fire-extinguishing system areas.
  - 3.8. Automatic fire detector zones.
  - 3.9. Fire barriers.

**408.11.1.1 Submittal.** The lease plan shall be submitted to the fire code official, and shall be maintained on-site for immediate reference by responding fire service personnel.

**408.11.1.2 Revisions.** The lease plans shall be reviewed and revised annually or as often as necessary to keep them current. Modifications or changes in tenants or occupancies

shall not be made without prior approval of the fire code official and building official.

**408.11.2 Tenant identification.** Each occupied tenant space provided with a secondary exit to the exterior or exit corridor shall be provided with tenant identification by business name and/or address. Letters and numbers shall be posted on the corridor side of the door, be plainly legible and shall contrast with their background.

EXCEPTION: Tenant identification is not required for anchor stores.

**408.11.3 Maintenance.** Unoccupied tenant spaces shall be:

1. Kept free from the storage of any materials.
2. Separated from the remainder of the building by partitions of at least 0.5 inch-thick (12.7 mm) gypsum board or an approved equivalent to the underside of the ceiling of the adjoining tenant spaces.
3. Without doors or other access openings other than one door that shall be kept key locked in the closed position except during that time when opened for inspection.
4. Kept free from combustible waste and be broom swept clean.

NEW SECTION

**WAC 51-54A-0503 Fire apparatus access roads.**

**503.1 Where required.** Fire apparatus access roads shall be provided and maintained in accordance with locally adopted street, road, and access standards.

**503.1.1 Buildings and facilities,** is not adopted.

**503.1.2 Additional access,** is not adopted.

**503.1.3 High-piled storage,** is not adopted.

**503.2 Specifications.** This section is not adopted.

**503.3 Marking.** This section is not adopted.

**503.4 Obstruction of fire apparatus access roads.** This section is not adopted.

**503.4.1 Traffic calming devices.** This section is not adopted.

NEW SECTION

**WAC 51-54A-0507 Fire protection water supplies.**

**507.3 Fire flow.** Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.

EXCEPTION: Fire flow is not required for structures under 500 square feet with a B, U or R-1 occupancy where structures are at least 30 feet from any other structure and are used only for recreation.

NEW SECTION

**WAC 51-54A-0508 Fire command center.**

**508.1.2 Separation.** The fire command center shall be separated from the remainder of the building by not less than a 2-hour fire barrier constructed in accordance with Section 707

of the International Building Code or horizontal assembly constructed in accordance with Section 712 of the International Building Code, or both.

NEW SECTION

**WAC 51-54A-0605 Electrical equipment, wiring and hazards.**

**605.11 Solar photovoltaic power systems.** This section is not adopted.

NEW SECTION

**WAC 51-54A-0609 Commercial kitchen hoods.**

**[M] 609.2 Where required.** A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease laden vapors.

EXCEPTIONS:

1. A Type I hood shall not be required to be installed in R-2 occupancies licensed by the state of Washington.
2. A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m<sup>3</sup> or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m<sup>3</sup>/s) in accordance with Section 17 of UL 710B.

**609.2.1 Domestic cooking appliances used for commercial purposes.** Domestic cooking appliances utilized for commercial purposes shall be provided with Type I, Type II or residential hoods as required for the type of appliances and processes in accordance with Table 609.2.1 and IMC Sections 507.2, 507.2.1 and 507.2.2.

**Table 609.2.1**

**Type of Hood Required for Domestic Cooking Appliances in the Following Spaces<sup>a, b</sup>**

Type of Space	Type of Cooking	Type of Hood
Church	1. Boiling, steaming and warming precooked food	Type II hood
	2. Roasting, pan frying and deep frying	Type I hood
Community or party room in apartment and condominium	1. Boiling, steaming and warming precooked food	Residential hood <sup>c</sup> or Type II hood <sup>d</sup>
	2. Roasting, pan frying and deep frying	Type I hood
Day care	1. Boiling, steaming and warming precooked food	Residential hood <sup>c</sup> or Type II hood <sup>d</sup>
	2. Roasting, pan frying and deep frying	Type I hood

Type of Space	Type of Cooking	Type of Hood
Dormitory, boarding home, nursing home	1. Boiling, steaming and warming precooked food	Type II hood
	2. Roasting, pan frying and deep frying	Type I hood
Office lunch room	1. Boiling, steaming and warming precooked food	Residential hood <sup>c</sup> or Type II hood <sup>d</sup>
	2. Roasting, pan frying and deep frying	Type I hood

<sup>a</sup> Commercial cooking appliances shall comply with Section 507.2.  
<sup>b</sup> Requirements in this table apply to electric or gas fuel appliances only. Solid fuel appliances or charbroilers require Type I hoods.  
<sup>c</sup> Residential hood shall ventilate to the outside.  
<sup>d</sup> Type II hood required when more than one appliance is used.

**609.3 Operations, inspection and maintenance.** Commercial cooking systems shall be operated, inspected and maintained in accordance with Sections 609.3.1 through 609.3.4 and Chapter 11 of NFPA 96.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-54A-0806 Decorative vegetation in new and existing buildings.**

**806.1.1 Restricted occupancies.** Natural cut trees shall be prohibited in the following occupancies:

1. Group I; and
2. R-2 occupancies providing licensed care to clients in one of the categories listed in IBC Section 310.1 licensed by Washington state.

**806.1.2 Support devices.** The support device that holds the tree in an upright position shall be of a type that is stable and that meets all of the following criteria:

1. The device shall hold the tree securely and be of adequate size to avoid tipping over of the tree.
2. The device shall be capable of containing a minimum supply of water in accordance with Table 806.1.2.
3. The water level, when full, shall cover the tree stem at least 2 inches (51 mm). The water level shall be maintained above the fresh cut and checked at least once daily.

**Table 806.1.2  
Support Stand Water Capacity**

Tree Stem Diameter (inches)	Minimum Support Stand Water Capacity (gallons)	Typical Daily Water Transpiration Amount (gallons)
Up to 4	1	1/4 to 1
4 to 6	1 1/2	1 1/4 to 1 1/2
7 to 8	2	1 3/4 to 2

Tree Stem Diameter (inches)	Minimum Support Stand Water Capacity (gallons)	Typical Daily Water Transpiration Amount (gallons)
9 to 12	3	2 1/4 to 3
13 and over	4	Over 3

NEW SECTION

**WAC 51-54A-0903 Automatic sprinkler systems.**

**903.2.1.6 Nightclub.** An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code.

**903.2.3 Group E.** An automatic sprinkler system shall be provided for Group E occupancies.

- EXCEPTIONS:
1. Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table 1004.1.2, provided that the aggregate area of any cluster of portable classrooms does not exceed 5,000 square feet (465 m<sup>2</sup>); and clusters of portable school classrooms shall be separated as required by the building code.
  2. Group E occupancies with an occupant load of 50 or less, calculated in accordance with Table 1004.1.2.

**903.2.8 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

- EXCEPTION:
- Group R-1 if all of the following conditions apply:
1. The Group R fire area is no more than 500 square feet and is used for recreational use only.
  2. The Group R fire area is on only one story.
  3. The Group R fire area does not include a basement.
  4. The Group R fire area is no closer than 30 feet from another structure.
  5. Cooking is not allowed within the Group R fire area.
  6. The Group R fire area has an occupant load of no more than 8.
  7. A hand-held (portable) fire extinguisher is in every Group R fire area.

**903.2.11 Basements.** Where any portion of a basement is located more than 75 feet (22860 mm) from openings required by Section 903.2.11.1, or where new walls, partitions or other similar obstructions are installed that increase the exit access travel distance to more than 75 feet, the basement shall be equipped throughout with an approved automatic sprinkler system.

NEW SECTION

**WAC 51-54A-0907 Fire alarm and detection systems.**

**907.2.9.1.1 Group R-2 boarding homes.** A manual fire alarm system shall be installed in Group R-2 occupancies where the building contains a boarding home licensed by the state of Washington.

- EXCEPTION:
- In boarding homes licensed by the state of Washington, manual fire alarm boxes in resident sleeping areas shall not be required at exits if located at all constantly attended staff locations, provided such staff locations are visible, continuously accessible, located on each



floor, and positioned so no portion of the story exceeds a horizontal travel distance of 200 feet to a manual fire alarm box.

## NEW SECTION

### **WAC 51-54A-0908 Emergency alarm systems.**

**908.7 Carbon monoxide alarms.** Group I or Group R occupancies shall be provided with single station carbon monoxide alarms installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units and on each level of the dwelling. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2009 and the manufacturer's instructions.

#### EXCEPTIONS:

1. For other than R-2 occupancies, the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; or
2. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, or a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that:
  - a. The sleeping unit or dwelling unit is not adjacent to any room which contains a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
  - b. The sleeping unit or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
  - c. The building is provided with a common area carbon monoxide detection system.
3. An open parking garage, as defined in Chapter 2 of the International Building Code, or enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be considered an attached garage.

**908.7.1 Carbon monoxide detection systems.** Carbon monoxide detection systems, that include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720-2009 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

## NEW SECTION

**WAC 51-54A-0909 Elevator hoistway pressurization alternative.** Where elevator hoistway pressurization is provided in lieu of required enclosed elevator lobbies, the pressurization system shall comply with Sections 909.21.1 through 909.21.11.

**909.21.1 Pressurization requirements.** Elevator hoistways shall be pressurized to maintain a minimum positive pressure of 0.10 inches of water (25 Pa) and a maximum positive pressure of 0.25 inches of water (67 Pa) with respect to adjacent occupied space on all floors. This pressure shall be measured at the midpoint of each hoistway door, with all elevator cars at the floor of recall and all hoistway doors on the floor of recall open and all other hoistway doors closed. The opening and closing of hoistway doors at each level must be demon-

strated during this test. The supply air intake shall be from an outside uncontaminated source located a minimum distance of 20 feet (6096 mm) from any air exhaust system or outlet.

**909.21.2 Rational analysis.** A rational analysis complying with Section 909.4 shall be submitted with the construction documents.

**909.21.3 Ducts for system.** Any duct system that is part of the pressurization system shall be protected with the same fire-resistance rating as required for the elevator shaft enclosure.

**909.21.4 Fan system.** The fan system provided for the pressurization system shall be as required by Sections 909.21.4.1 through 909.21.4.4.

**909.21.4.1 Fire resistance.** When located within the building, the fan system that provides the pressurization shall be protected with the same fire-resistance rating required for the elevator shaft enclosure.

**909.21.4.2 Smoke detection.** The fan system shall be equipped with a smoke detector that will automatically shut down the fan system when smoke is detected within the system.

**909.21.4.3 Separate systems.** A separate fan system shall be used for each elevator hoistway.

**909.21.4.4 Fan capacity.** The supply fan shall either be adjustable with a capacity of at least 1,000 cfm (0.4719 m<sup>3</sup>/s) per door, or that specified by a registered design professional to meet the requirements of a designed pressurization system.

**909.21.5 Standby power.** The pressurization system shall be provided with standby power from the same source as other required emergency systems for the building.

**909.21.6 Activation of pressurization system.** The elevator pressurization system shall be activated upon activation of the building fire alarm system or upon activation of the elevator lobby smoke detectors. Where both a building fire alarm system and elevator lobby smoke detectors are present, each shall be independently capable of activating the pressurization system.

**909.21.7 Special inspection.** Special inspection for performance shall be required in accordance with Section 909.18.8. System acceptance shall be in accordance with Section 909.19.

**909.21.8 Marking and identification.** Detection and control systems shall be marked in accordance with Section 909.14.

**909.21.9 Control diagrams.** Control diagrams shall be provided in accordance with Section 909.15.

**909.21.10 Control panel.** A control panel complying with Section 909.16 shall be provided.

**909.21.11 System response time.** Hoistway pressurization systems shall comply with the requirements for smoke control system response time in Section 909.17.

NEW SECTION**WAC 51-54A-0915 Alerting systems.**

**915.1 General.** An approved alerting system shall be provided in buildings and structures as required in Chapter 4 and this section, unless other requirements are provided by another section of this code.

EXCEPTION: Approved alerting systems in existing buildings, structures or occupancies.

**915.2 Power source.** Alerting systems shall be provided with power supplies in accordance with Section 4.4.1 of NFPA 72 and circuit disconnecting means identified as "EMERGENCY ALERTING SYSTEM."

EXCEPTION: Systems which do not require electrical power to operate.

**915.3 Duration of operation.** The alerting system shall be capable of operating under nonalarm condition (quiescent load) for a minimum of 24 hours and then shall be capable of operating during an emergency condition for a period of 15 minutes at maximum connected load.

**915.4 Combination system.** Alerting system components and equipment shall be allowed to be used for other purposes.

**915.4.1 System priority.** The alerting system use shall take precedence over any other use.

**915.4.2 Fire alarm system.** Fire alarm systems sharing components and equipment with alerting systems must be in accordance with Section 6.8.4 of NFPA 72.

**915.4.2.1 Signal priority.** Recorded or live alert signals generated by an alerting system that shares components with a fire alarm system shall, when actuated, take priority over fire alarm messages and signals.

**915.4.2.2 Temporary deactivation.** Should the fire alarm system be in the alarm mode when such an alerting system is actuated, it shall temporarily cause deactivation of all fire alarm-initiated audible messages or signals during the time period required to transmit the alert signal.

**915.4.2.3 Supervisory signal.** Deactivation of fire alarm audible and visual notification signals shall cause a supervisory signal for each notification zone affected in the fire alarm system.

**915.5 Audibility.** Audible characteristics of the alert signal shall be in accordance with Section 7.4.1 of NFPA 72 throughout the area served by the alerting system.

EXCEPTION: Areas served by approved visual or textual notification, where the visible notification appliances are not also used as a fire alarm signal, are not required to be provided with audibility complying with Section 915.6.

**915.6 Visibility.** Visible and textual notification appliances shall be permitted in addition to alert signal audibility.

NEW SECTION**WAC 51-54A-1007 Accessible means of egress.**

**1007.1 Accessible means of egress required.** Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

EXCEPTIONS:

1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3, 1007.4 or 1007.5.
3. In assembly areas with sloped or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1028.8.
4. In parking garages, accessible means of egress are not required to serve parking areas that do not contain accessible parking spaces.

**1007.8.1 System requirements.** Two-way communication systems shall provide communication between each required location and the fire command center or a central control point location approved by the fire department. Where the central control point is not constantly attended, a two-way communication system shall have a timed automatic telephone dial-out capability to a monitoring location. The two-way communication system shall include both audible and visible signals. The two-way communication system shall have a battery backup or an approved alternate source of power that is capable of 90 minutes use upon failure of the normal power source.

NEW SECTION**WAC 51-54A-1008 Doors, gates and turnstiles.**

**1008.1.9.3 Locks and latches.** Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
  - 2.1. The locking device is readily distinguishable as locked;
  - 2.2. A readily visible sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and
  - 2.3. The use of the key-operated locking device is revocable by the building official for due cause.
3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no door-knob or surface-mounted hardware.

4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt, or security chain, provided such devices are openable from the inside without the use of a key or a tool.

5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

6. Approved, listed locks without delayed egress shall be permitted in Group R-2 boarding homes licensed by Washington state, provided that:

6.1. The clinical needs of one or more patients require specialized security measures for their safety.

6.2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.

6.3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.

6.4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.

6.5. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.

#### **1008.1.9.6 Special locking arrangements in Group I-2.**

Approved special egress locks shall be permitted in a Group I-2 Occupancy where the clinical needs of persons receiving care require such locking. Special egress locks shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 7.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.

2. The doors unlock upon loss of power controlling the lock or lock mechanism.

3. The door locks shall have the capability of being unlocked by a signal from the fire command center, a nursing station or other approved location.

4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.

5. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.

6. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.

7. Emergency lighting shall be provided at the door.

EXCEPTION: Items 1, 2, 3, and 6 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area provided that all clinical staff shall have the keys, codes or other means necessary to operate the locking devices.

#### NEW SECTION

#### **WAC 51-54A-1009 Stairways and handrails.**

**1009.3 Exit access stairways.** Floor openings between stories created by exit access stairways shall be enclosed.

- EXCEPTIONS:
1. In other than Group I-2 and I-3 occupancies, exit access stairways that serve, or atmospherically communicate between, only two stories are not required to be enclosed. Such interconnected stories shall not be open to other stories.
  2. Exit access stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
  3. In Group B or M occupancies, exit access stairways that are designed exclusively for circulation are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.
  4. In other than Group B and M occupancies, exit access stairways that are designed exclusively for circulation are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.

**1009.18 Stairways in individual dwelling units.** Stairs or ladders within an individual dwelling unit used for access to areas of 200 square feet (18.6 m<sup>2</sup>) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1009.

#### NEW SECTION

#### **WAC 51-54A-1010 Ramps.**

**1010.1 Scope.** The provisions of this section shall apply to ramps used as a component of a means of egress.

- EXCEPTIONS:
1. Other than ramps that are part of the accessible routes providing access in accordance with Sections 1108.2 through 1108.2.4 and 1108.2.6, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1028.11.
  2. Curb ramps shall comply with ICC A117.1.
  3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.4 through 1010.10 when they are not an accessible route serving accessible parking spaces or other required accessible elements.
  4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area may include a vehicle ramp that does not comply with Sections 1010.5, 1010.6, and 1010.9. A landing complying with Sections 1010.7.1 and 1010.7.4 shall be provided at any change of direction in the accessible means of egress.

NEW SECTION**WAC 51-54A-1018 Corridors.**

**1018.5 Air movement in corridors.** Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

- EXCEPTIONS:
1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.
  2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
  3. Where located within tenant spaces of one thousand square feet (93 m<sup>2</sup>) or less in area, utilization of corridors for conveying return air is permitted.
  4. Incidental air movement from pressurized rooms within health care facilities, provided that a corridor is not the primary source of supply or return to the room.
  5. Where such air is part of an engineered smoke control system.
  6. Air supplied to corridors serving residential occupancies shall not be considered as providing ventilation air to the dwelling units subject to the following:
    - 6.1. The air supplied to the corridor is one hundred percent outside air; and
    - 6.2. The units served by the corridor have conforming ventilation air independent of the air supplied to the corridor; and
    - 6.3. For other than high-rise buildings, the supply fan will automatically shut off upon activation of corridor smoke detectors which shall be spaced at no more than thirty feet (9144 mm) on center along the corridor; or
    - 6.4. For high-rise buildings, corridor smoke detector activation will close required smoke/fire dampers at the supply inlet to the corridor at the floor receiving the alarm.

**1018.6 Corridor continuity.** Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.

- EXCEPTIONS:
1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.
  2. In Group R-2 boarding homes and residential treatment facilities licensed by Washington state, seating areas shall be allowed to be open to the corridor provided:
    - 2.1. The seating area is constructed as required for the corridor;
    - 2.2. The floor is separated into at least two compartments complying with Section 407.5;
    - 2.3. Each individual seating area does not exceed 150 square feet, excluding the corridor width;
    - 2.4. The combined total space of seating areas per compartment does not exceed 300 square feet, excluding the corridor width;
    - 2.5. Combustible furnishings located within the seating area shall be in accordance with the International Fire Code Section 805; and
    - 2.6. Emergency means of egress lighting is provided as required by Section 1006 to illuminate the area.

NEW SECTION**WAC 51-54A-1021 Number of exits and exit configurations.**

**1021.3.1 Access to exits at adjacent levels.** Access to exits at other levels shall be by stairways or ramps. Where access to exits occurs from adjacent building levels, the horizontal and vertical exit access travel distance to the closest exit shall not exceed that specified in Section 1016.1. The path of egress travel to an exit shall not pass through more than one adjacent story.

- EXCEPTION:
- Landing platforms or roof areas for helistops that are less than 60 feet (18,288 mm) long, or less than 2,000 square feet (186 m<sup>2</sup>) in area, shall be permitted to access the second exit by a fire escape, alternating tread device or ladder leading to the story or level below.

NEW SECTION**WAC 51-54A-1103 Fire safety requirements for existing buildings.**

**1103.4.3 Nightclub.** An automatic sprinkler system shall be provided throughout A-2 nightclubs as defined in this code. No building shall be constructed for, used for, or converted to occupancy as a nightclub except in accordance with this section.

**1103.9 Carbon monoxide alarms.** Existing Group I or Group R occupancies shall be provided with single station carbon monoxide alarms in accordance with Section 908.7. An inspection will occur when alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2009 and the manufacturer's instructions.

- EXCEPTIONS:
1. For other than R-2 occupancies, if the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage.
  2. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, or electrical permits.
  3. Installation, alteration or repairs of noncombustion plumbing or mechanical systems.
  4. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that:
    - a. The sleeping units or dwelling unit is not adjacent to any room which contains a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
    - b. The sleeping units or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or to an attached garage; and
    - c. The building is provided with a common area carbon monoxide detection system.
  5. An open parking garage, as defined in the International Building Code, or enclosed parking garage ventilated in accordance with Section 404 of the Interna-

tional Mechanical Code shall not be considered an attached garage.

**OPTION ONE: (Requiring PLM for existing buildings)**

NEW SECTION

**WAC 51-54A-1104 Means of egress for existing buildings.**

**1104.1 General.** Means of egress in existing buildings shall comply with Section 1030 and 1104.2 through 1104.24.

EXCEPTION: Means of egress conforming to the requirements of the building code under which they were constructed and Section 1030 shall not be required to comply with 1104.2 through 1104.22.

**OPTION 2: (Matching the existing emergency rule)**

NEW SECTION

**WAC 51-54A-1104 Means of egress for existing buildings.**

**1104.1 General.** Means of egress in existing buildings shall comply with Section 1030 and 1104.2 through 1104.24.

EXCEPTION: Means of egress conforming to the requirements of the building code under which they were constructed and Section 1030 shall not be required to comply with 1104.2 through 1104.22 and 1104.24.

NEW SECTION

**WAC 51-54A-3601 Marinas—Scope.**

**3601.1.2 Permits.** For permits to operate marine motor fuel-dispensing stations, application of flammable or combustible finishes, and hot works, see Section 105.6.

NEW SECTION

**WAC 51-54A-3602 Definitions.**

**3602.1 Definitions.** The following terms are defined in Chapter 2:

**COVERED BOAT MOORAGE.**

**FLOAT.**

**GRAVITY-OPERATED DROP OUT VENTS.**

**MARINA.**

**PIER.**

**VESSEL.**

**WHARF.**

NEW SECTION

**WAC 51-54A-3604 Fire protection equipment.**

**3604.2 Standpipes.** Marinas shall be equipped throughout with Class I manual, dry standpipe systems in accordance with NFPA 303. Systems shall be provided with outlets

located such that no point on the marina pier or float system exceeds 150 feet from a standpipe outlet.

**3604.3 Access and water supply.** Piers and wharves shall be provided with fire apparatus access roads and water-supply systems with on-site fire hydrants when required and approved by the fire code official. At least one fire hydrant capable of providing the required fire flow shall be provided within an approved distance of standpipe supply connections.

**3604.4 Portable fire extinguishers.** One 4A40BC fire extinguisher shall be provided at each standpipe outlet. Additional fire extinguishers, suitable for the hazards involved, shall be provided and maintained in accordance with Section 906.

**3604.7 Smoke and heat vents.** Approved automatic smoke and heat vents shall be provided in covered boat moorage areas exceeding 2,500 sq. ft. (232 m<sup>2</sup>) in area, excluding roof overhangs.

EXCEPTION: Smoke and heat vents are not required in areas protected by automatic sprinklers.

**3604.7.1 Design and installation.** Where smoke and heat vents are required they shall be installed near the roof peak, evenly distributed and arranged so that at least one vent is over each covered berth. The effective vent area shall be calculated using a ratio of one square foot of vent to every fifteen square feet of covered berth area (1:15). Each vent shall provide a minimum opening size of 4 ft. x 4 ft.

**3604.7.1.1 Smoke and heat vents.** Smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) above ambient.

EXCEPTION: Gravity-operated drop out vents.

**3604.7.1.2 Gravity-operated drop out vents.** Gravity-operated drop out vents shall fully open within 5 minutes after the vent cavity is exposed to a simulated fire represented by a time-temperature gradient that reaches an air temperature of 500°F (260°C) within 5 minutes.

**3604.8 Draft curtains.** Draft curtains shall be provided in covered boat moorage areas exceeding 2,500 sq. ft. (232 m<sup>2</sup>) in area, excluding roof overhangs.

EXCEPTION: Draft curtains are not required in areas protected by automatic sprinklers.

**3604.8.1 Draft curtain construction.** Draft curtains shall be constructed of sheet metal, gypsum board or other approved materials that provide equivalent performance to resist the passage of smoke. Joints and connections shall be smoke tight.

**3604.8.2 Draft curtain location and depth.** The maximum area protected by draft curtains shall not exceed 2,000 sq. ft. (186 m<sup>2</sup>) or two slips or berths, whichever is smaller. Draft curtains shall not extend past the piling line. Draft curtains shall have a minimum depth of 4 feet and shall not extend closer than 8 feet (2438 mm) to the walking surface of the pier.

NEW SECTION

**WAC 51-54A-5306 Medical gas systems.**

**5306.1 General.** Compressed gases at hospitals and similar facilities intended for inhalation or sedation including, but not limited to, analgesia systems for dentistry, podiatry, veterinary and similar uses shall comply with Sections 5306.2 through 5306.4 in addition to other requirements of this chapter.

EXCEPTION: All new distribution piping, supply manifolds, connections, regulators, valves, alarms, sensors and associated equipment shall be in accordance with the Plumbing Code.

**5306.4 Medical gas systems.** The maintenance and testing of medical gas systems including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves, shall comply with the maintenance and testing requirements of NFPA 99 and the general provisions of this chapter.

NEW SECTION

**WAC 51-54A-5601 General.**

**5601.1 Scope.** The provisions of this chapter shall govern the possession, manufacture, storage, handling, sale and use of explosives, explosive materials, and small arms ammunition. The manufacture, storage, handling, sale and use of fireworks shall be governed by chapter 70.77 RCW, and by chapter 212-17 WAC and local ordinances consistent with chapter 212-17 WAC.

- EXCEPTIONS:
1. The Armed Forces of the United States, Coast Guard or National Guard.
  2. Explosives in forms prescribed by the official United States Pharmacopoeia.
  3. The possession, storage and use of small arms ammunition when packaged in accordance with DOT packaging requirements.
  4. The possession, storage and use of not more than 1 pound (0.454 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.
  5. The use of explosive materials by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.
  6. Special industrial explosive devices in which the aggregate contain less than 50 pounds (23 kg) of explosive materials.
  7. The possession, storage and use of blank industrial-power load cartridges when packaged in accordance with DOT packaging regulations.
  8. Transportation in accordance with DOT 49 C.F.R. Parts 100-178.
  9. Items preempted by federal regulations.

**5601.1.1 Explosive material standard.** In addition to the requirements of this chapter, NFPA 495 shall govern the manufacture, transportation, storage, sale, handling and use of explosive materials. See also chapter 70.74 RCW and chapter 296-52 WAC.

NEW SECTION

**WAC 51-54A-5704 Storage.**

**5704.2.11 Underground tanks.** Underground storage of flammable and combustible liquids in tanks shall comply with Section 3404.2 and Sections 3404.2.11.1 through 3404.2.11.5.2. Corrosion protection shall comply with WAC 173-360-305.

NEW SECTION

**WAC 51-54A-5706 Special operations.**

**5706.5.4.5 Commercial, industrial, governmental or manufacturing.** Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with the following: (Those sections not noted here remain unchanged.)

12. Fuel delivery vehicles shall be equipped with spill clean-up supplies in accordance with the department of ecology's Source Control Best Management Practices. Such supplies shall be readily available for deployment by the operator at all times and include nonwater absorbents capable of absorbing 15 gallons (56.76 L) of diesel fuel, storm drain plug or cover kit, a nonwater absorbent containment boom of a minimum 10 foot long (3038 mm) length with a 12-gallon (45.41 L) absorbent capacity, a nonmetallic shovel, and two 5-gallon (19 L) buckets with lids.

NEW SECTION

**WAC 51-54A-6108 Fire protection.**

**6108.1 Scope.** Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gas shall be determined in accordance with Appendix B of NFPA 58.

EXCEPTION: The use and storage of listed propane fired barbeque grills on R-2 decks and balconies with an approved container not exceeding a water capacity of 20 pounds (9 kg) that maintain a minimum clearance of 18 inches on all sides, unless listed for lesser clearances.

NEW SECTION

**WAC 51-54A-8000 Referenced standards.**

NFPA 9607 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. . . . . 609.3

NEW SECTION

**WAC 51-54A-8100 Appendix K—Wildland-Urban-Interface Code.**

**K101.5 Additions or alterations.** Additions or alterations may be made to any building or structure without requiring the existing building or structure to comply with all of the

requirements of this code, provided the addition or alteration conforms to that required for a new building or structure.

EXCEPTION: Provisions of this code that specifically apply to existing conditions are retroactive. See Sections 402.3, 601.1 and Appendix A.

Additions or alterations shall not cause the existing building or structure to become unsafe. An unsafe condition shall be deemed to have been created if an addition or alteration will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate access in compliance with the provisions of this code or will obstruct existing exits or access; will create a fire hazard; will reduce required fire resistance or will otherwise create conditions dangerous to human life.

**K108.3 Site plan.** In addition to the requirements for plans in the International Building Code, the code official may require site plans which include topography, width and percent of grade of access roads, landscape and vegetation details, locations of structures or building envelopes, existing or proposed overhead utilities, occupancy classification of buildings, types of ignition resistant construction of buildings, structures and their appendages, roof classification of buildings, and site water supply systems. The code official is authorized to waive or modify the requirement for a site plan.

**K108.4 Vegetation management plans.** When required by the code official or when utilized by the permit applicant pursuant to Section 502, vegetation management plans shall be prepared and shall be submitted to the code official for review and approval as part of the plans required for a permit. See Appendix B.

**K108.7 Vicinity plan.** When required by the code official, the requirements for site plans shall include details regarding the vicinity within 300 feet (91,440 mm) of property lines, including other structures, slope, vegetation, fuel breaks, water supply systems and access roads.

**K402.1.1 Access.** New subdivisions, as determined by this jurisdiction, shall be provided with fire apparatus access roads in accordance with the International Fire Code.

**K402.1.2 Water supply.** New subdivisions as determined by this jurisdiction shall be provided with water supply in accordance with the International Fire Code.

**K402.2 Individual structures.** Individual structures shall comply with Sections 402.2.1 and 402.2.2.

**K402.2.1 Access.** Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with fire apparatus access in accordance with the International Fire Code.

**K402.2.2 Water supply.** Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with a conforming water supply in accordance with the International Fire Code.

- EXCEPTIONS:
1. Structures constructed to meet the requirements for the class of ignition-resistant construction specified in Table 503.1 for a nonconforming water supply.
  2. Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m<sup>2</sup>).

**K402.3 Existing conditions.** Existing address markers, roads and fire protection equipment shall be in accordance with the International Fire Code.

**Table K503.1  
Ignition-Resistant Construction<sup>a</sup>**

	Fire Hazard Severity					
	Moderate Hazard		High Hazard		Extreme Hazard	
	Water Supply <sup>b</sup>		Water Supply <sup>b</sup>		Water Supply <sup>b</sup>	
<b>Defensible Space<sup>c</sup></b>	Conforming	Nonconforming	Conforming	Nonconforming	Conforming	Nonconforming
Nonconforming	IR 2	IR 1	IR 1	IR 1 N.C.	IR 1 N.C.	Not Permitted
Conforming	IR 3	IR 2	IR 2	IR 1	IR 1	IR 1 N.C.
1.5 x Conforming	Not Required	IR 3	IR 3	IR 2	IR 2	IR 1

<sup>a</sup>Access shall be in accordance with Section 402.

<sup>b</sup>Water supply shall be in accordance with Section 402.1.

IR 1 = Ignition-resistant construction in accordance with Section 504.

IR 2 = Ignition-resistant construction in accordance with Section 505.

IR 3 = Ignition-resistant construction in accordance with Section 506.

N.C. = Exterior walls shall have a fire-resistance rating of not less than 1 hour and the exterior surfaces of such walls shall be noncombustible. Usage of log wall construction is allowed.

<sup>c</sup>Conformance based on Section 603.

**K403 Access.** This section not adopted.

**K404 Water supply.** This section not adopted.

APPENDIX B-VEGETATION MANAGEMENT PLAN - THIS APPENDIX IS ADOPTED.

APPENDIX C-FIRE DANGER RATING SYSTEM - THIS APPENDIX IS ADOPTED.

REPEALER

The following chapter of the Washington Administrative Code is repealed:

- |               |                          |
|---------------|--------------------------|
| WAC 51-54-001 | Authority.               |
| WAC 51-54-002 | Purpose.                 |
| WAC 51-54-003 | International Fire Code. |

WAC 51-54-007	Exceptions.
WAC 51-54-008	Implementation.
WAC 51-54-0100	Chapter 1—Administration.
WAC 51-54-0200	Chapter 2—Definitions.
WAC 51-54-0300	Chapter 3—General precautions against fire.
WAC 51-54-0400	Chapter 4—Emergency planning and preparedness.
WAC 51-54-0500	Chapter 5—Fire service features.
WAC 51-54-0600	Chapter 6—Building services and systems.
WAC 51-54-0800	Chapter 8—Interior finish, decorative materials and furnishings.
WAC 51-54-0900	Chapter 9—Fire protection systems.
WAC 51-54-1000	Chapter 10—Means of egress.
WAC 51-54-1100	Aircraft-fueling vehicles.
WAC 51-54-2200	Chapter 22—Motor fuel-dispensing facilities and repair garages.
WAC 51-54-3000	Chapter 30—Compressed gasses.
WAC 51-54-3300	Chapter 33—Explosives and fireworks.
WAC 51-54-3400	Chapter 34—Flammable and combustible liquids.
WAC 51-54-3800	Chapter 38—Liquefied petroleum gases.
WAC 51-54-4500	Chapter 45—Marinas.
WAC 51-54-4600	Chapter 46—Existing buildings.
WAC 51-54-4700	Chapter 47—Referenced standards.
WAC 51-54-4800	Appendix K—Wildland and Urban Interface Code.

**WSR 12-16-086****PROPOSED RULES****BUILDING CODE COUNCIL**

[Filed July 31, 2012, 3:34 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-03-111.

Title of Rule and Other Identifying Information: Adoption and amendment of the 2012 International Energy Conservation Code (IECC) (Residential), chapter 51-11R WAC, and repeal of chapter 51-11 WAC.

Hearing Location(s): Center Place Event Center, 2426 North Discovery Place, Spokane Valley, WA 99216, on September 14, 2012, at 10 a.m.; and at the DES Presentation Room, 1500 Jefferson S.E., Olympia, WA 98504, on September 21, 2012, at 10 a.m.

Date of Intended Adoption: November 9, 2012.

Submit Written Comments to: Ray Allshouse, Chair, State Building Code Council (SBCC), P.O. Box 41449, Olympia, WA 98504-1449, e-mail sbcc@ga.wa.gov, fax (360) 586-9088, by September 21, 2012.

Assistance for Persons with Disabilities: Contact Peggy Bryden by September 7, 2012, (360) 407-9280.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules adopt the 2012 edition of the IECC with amendments to incorporate requirements from the 2009 Washington State Energy Code, increase clarity, and increase energy efficiency as required in RCW 19.27A.160. As part of this adoption, the Energy Code is recodified as two separate WACs: Chapter 51-11R WAC for residential requirements and chapter 51-11C WAC for commercial requirements. Default building assembly values previously found in Chapter 10 of the Energy Code can now be found in Appendix A of chapter 51-11C WAC and are applicable to both. Fenestration default values are found in Section R303.1.3.

**Summary of Proposed Changes:**

1. **Change of Scope.** With the adoption of the 2012 IECC, the definition of "residential" has changed. Chapter 51-11R WAC now applies to detached one- and two-family dwellings and townhouses AND Group R-2, and R-3 buildings three stories or less. Clarifying language is added that converted spaces must be brought into full compliance (R101.4.4).

2. **Climate Zones.** The climate zones in the Energy Code have changed to reflect those of the IECC. Washington state is now comprised of three climate zones: Climate Zone 4 Marine, Climate Zone 5, and Climate Zone 6. For the residential code, Climate Zones 4 Marine and 5 share the same requirements. See Table R301.1 for a county by county breakdown of climate zones.

3. **Prescriptive Envelope Requirements.** The code no longer has multiple paths for prescriptive compliance. Door U-factors are now the same as window U-factors. Wood wall requirements in Climate Zone 6 (Ferry, Okanogan, Pend Oreille and Stevens counties) have increased. Values can be found in Tables R402.1.1 and R402.1.3. Insulation for slab-on-grade floors in Climate Zone 6 are required to extend forty-eight inches instead of twenty-four inches.

4. **Air Leakage Requirements.** Specific air barrier requirements and insulation details are provided in Table R402.4.1.1. Testing results are measured in ACH rather than SLA. The requirement is for 5 ACH, which is slightly better than the 2009 code. Specific maximums for window and door leakage rates are added (R402.4.3).

5. **Mechanical Requirements.** Lockout controls for heat pumps (R403.1.2) was changed from 32 to 35 degrees to



correspond with control capabilities. Duct insulation is set at a minimum of R-8 (R403.2). The IECC contains a requirement for air handlers to be sealed (R403.2.2.1). Hot water piping insulation was changed to R-4 (R403.4.2). The IECC carries minimum requirements for mechanical ventilation fan efficiency (R403.5) and snow melt systems (R403.8). Systems serving multiple dwelling units are directed to comply with Sections C403 and C404 of chapter 51-11C WAC. Pool heaters are required to be equipped with time switches (R403.9.2)

**6. Lighting Requirements.** The IECC requires that seventy-five percent of installed lamps be high efficiency (R404.1). Fuel gas lighting systems are prohibited from having continuously burning pilots (R404.1.1).

**7. Simulated Performance Alternative.** The systems analysis approach now includes heating, cooling and service water heating energy only (R405.1). Depending on the size of the dwelling, the analysis must be between eighty-three and ninety-seven percent of the standard reference design (R405.3) to incorporate requirements from R406.

**8. Additional Energy Efficiency Requirements.** Section R406 contains requirements for one- and two-family dwellings and townhouses. Depending on the size of the dwelling, they are required to achieve between 0.5 to 2.5 credits (R406.2). The list of options (Table 406.2) has been reorganized and additional options have been added for air leakage and HVAC equipment.

To review a copy of the residential IECC with all changes to the model code marked, see <https://fortress.wa.gov/ga/apps/SBCC/File.aspx?cid=2251>. Changes to incorporate 2009 WSEC provisions are shown in black strikethrough/underline formatting, while changes from code change proposals received are shown in track changes mode.

#### **General layout of 2012 IECC:**

##### **Chapter 1: Scope, Admin and Enforcement**

##### **Chapter 2: Definitions**

##### **Chapter 3: General requirements**

R301 - Climate Zones

R302 - Design Conditions

R303 - Materials, Systems and Equip

##### **Appendix C: Exterior Design Conditions**

##### **Chapter 4: Residential Energy Efficiency**

R401 - General Requirements

R402 - Building Thermal Envelope

R403 - Mechanical Systems

R404 - Electrical Power and Lighting

R405 - Simulated Performance Alternative

R406 - Additional Energy Efficiency Requirements

##### **Chapter 5: Reference Standards**

Reasons Supporting Proposal: RCW 19.27A.020, 19.27A.160.

Statutory Authority for Adoption: RCW 19.27A.020, 19.27A.025, 19.27A.045, 19.27A.160.

Statute Being Implemented: Chapters 19.27, 19.27A, and 34.05 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fis-

cal Matters: The council is seeking comments on the issues proposed in the rules shown below.

Name of Proponent: SBCC, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Krista Braaksma, 1500 Jefferson S.E., P.O. Box 41449, Olympia, WA, (360) 407-9278.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

#### **Small Business Economic Impact Statement**

**Impact on Small Business:** The SBCC/council is filing a proposed rule to adopt the 2012 edition of the IECC with state amendments (chapter 51-11 WAC). Since 1989 the SBCC has been responsible for updating the state Energy Code to improve energy efficiency in buildings, as required by chapter 19.27A RCW, and more recently has been tasked by the legislature to meet advanced energy efficiency targets. The council and its Energy Code technical advisory group have proposed about one hundred seventy-five amendments to this model code. These amendments were created to (1) maintain the stringency of the 2009 State Energy Code, (2) clarify and coordinate code requirements and (3) achieve legislatively mandated improvements in the energy efficiency of buildings.

The council has identified twenty-four of these state amendments that have economic impact. In addition, the model code itself contains another thirty provisions that are more stringent than the current state code.

A technical advisory group (TAG) was appointed by the council to review and amend the 2012 IECC. The TAG included all sectors of the construction industry and regulatory community, including small businesses. A paragraph-by-paragraph review of the entire code was undertaken, and the IECC was modified with existing Washington state requirements where those were more stringent or more clearly worded. The TAG and council then reviewed each of the one hundred seventy-one new amendments proposed by the public, and in some cases made extensive modifications to those proposals. All TAG meetings were open to the public, and small businesses participated actively in the process.

The majority of the amendments to the new code provide more clarity and consistency, which will streamline compliance for all stakeholders. However, the transition to the new code will require some general expenditures for design and construction businesses during the transition period, including small businesses. The degree of these impacts will diminish during the code cycle as rules become familiar and construction practices adjust. Where a code requirement increases the cost of a service or material, those businesses may see decreased revenue. Conversely, where a code requirement requires additional services or building materials, the businesses supplying those services and materials may see increased revenue.

**The Cost Impact on Small Businesses Compared to the Largest Businesses in the State Will Not Be Disproportionate:** Each aspect of the new code was discussed and debated in the TAG and at the council, both of which worked to mitigate the cost and maximize the energy savings of each provision. Wherever small businesses appeared to be dispro-

portionately impacted by a code provision, the code was modified to mitigate or eliminate that difference.

The council has found that in a competitive bidding climate, construction costs per square foot are similar between large and small industry firms. The cost to businesses of building permit plan review and inspection will not be affected by adoption of the new edition.

The impact on jobs is anticipated to be neutral or slightly positive for construction industry workers.

**Section I: Introduction/Compliance With the Rules:**

For a complete list of all state amendments contained in the proposed 2012 WSEC see this link: <https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=116>.

The primary change from the current code is adoption of a national model code, the 2012 IECC. Use of a national standard in place of a unique state code will generally simplify compliance and make more code resources available for practitioners. Most of the one hundred seventy-five proposed amendments to this code coordinate and clarify the rules, reducing the cost of compliance. Others transfer existing and familiar provisions from the existing state Energy Code into the amended IECC, and are thus cost neutral. A third category of amendments are intended to optimize energy efficiency. These typically decrease energy use in the building, and thus pay for their increased construction costs over time.

Beyond expenses related to the transition to the new code format, there will be little or no additional expenses related to reporting, recordkeeping or administrative code compliance paperwork. Where TAG members noted ambiguity or unwarranted complexity, the proposed code provision was modified to mitigate such difficulties. Local code officials were represented at all TAG meetings and actively intervened to ensure that plan review and field inspection work was not made more complicated or difficult than it is under the current code.

**Section II: Compliance Costs for Washington Businesses:** The 2012 IECC and the proposed amendments do contain significant new requirements, requiring additional expenditures by building owners. These construction costs will typically be offset by energy savings during the life of the building. The council identified the provisions as impacting construction cost and savings in comparison with the current Energy Code, as listed in Appendix A.

**Section III: Analysis of Proportionate Impact on Small Businesses:**

**The Impact on Small Businesses as Compared With the Largest Businesses in the State Will Not Be Disproportionate:** The majority of Washington state firms in the design and construction fields qualify as small businesses. In some cases, larger firms may be able to negotiate lower costs for materials and subcontracts than smaller firms. In other cases, smaller firms are able to be more competitive due to lower overhead costs. Apart from those general trends however, construction is a competitive marketplace where specific contracts are won without regard to the number of employees on the bidder's staff. For this reason, the incremental costs of meeting the 2012 Energy Code are generally proportionate between large and small businesses.

**Section IV: Small Business Involvement and Impact Reduction Efforts:**

**Actions Taken to Reduce the Impact of the Rule on Small Businesses:** The TAG identified specific amendments with a cost impact and modified the code to reduce the impact while maintaining the intent of the code. Where the SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost. The proposed rule includes a definition of small business and provides exceptions for compliance with the updated regulation.

**Involvement of Small Business in the Development of the Proposed Rules:** A TAG composed of representatives from all sectors of industry and government reviewed the proposed changes to the 2012 WSEC.

For a directory of TAG members see <https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=116>.

**Section V: Number of Affected Businesses in Washington:**

Type of Business	NAICS CODE #	# IN STATE (UP TO 49 Employees)	#IN STATE (50 OR MORE Employees)
Homebuilders	236115	3985	12
Multifamily Housing Construction	236116	77	0
Residential Remodelers	236118	3468	1
Industrial Building Construction	236210	89	6
Commercial and Institutional Building Construction	236220	1305	40
Roofing Contractors	238160	973	7
Wood Window and Door Manufacturing	321911	39	2
Masonry Contractors	238140	572	1
Plumbing, Heating, Air Conditioning Contractors	238220	2319	48
Insulation Contractors	238310	1006	12
Architects	541310	602	16
Engineers	541330	1665	96

**Section VI: Jobs Created or Lost as a Result of These Rules:** The adoption of the latest code edition is not expected to significantly impact the number of jobs in the construction industry. These rules are likely to be job neutral overall, i.e., they will not result in any job gains or losses.

The construction industry continues to experience slow growth. Employment in all sectors impacts activity in the construction sector. According to Washington Occupational Employment Projections, posted by the department of employment security, the total number of construction trade workers statewide was 124,612 in the second quarter of 2011. There is an estimated increase of 0.6 percent by the second quarter of 2013, for a total number of construction trade workers of 126,093. Specialty trades show a similar pattern of slow growth by the second quarter of 2013:

- Carpenters 33,821 +0.4%
- Construction laborers 16,592 +0.5%

- Plumbers, pipefitters 8,885 +0.3% Washington is expected to grow in this same period about 2.2 percent to 54,769.

Some sectors are expected to experience slightly more positive growth. The number of engineers employed in

**2012 Washington State Energy Code SBEIS Appendix A  
Costs and Energy Impacts of 2012 Residential Energy Code**  
For IECC Climate Zones 4 and 5, as  
compared with current (2009) WSEC

Section	<u>Changes with Significant Cost</u>	Construction Cost Impacts	Energy Savings	Building Types	Trades Impacted
R101.4.4	Alterations - unheated to heated space: Requirement for spaces going from unheated to heated to come up to code completely.	+ May require upgrades to wall, window, door and slab edge, as well as lighting controls.	+ Savings may be extensive if existing space envelope (for garage, unheated basement, etc.) is uninsulated or poorly insulated.	Residential remodeling, conversion of unheated space to living space.	Insulation, windows, doors, lighting.
R406.2	Residential efficiency credits: Increases the number of required credits from 1.0 to 1.5.	+ Cost for additional credits will vary according to selection by owner.	+ Energy savings expected to be approximately 3.5 percent.	All.	Varies.

Section	<u>Changes with Limited Cost</u>	Construction Cost Impacts	Energy Savings	Building Types	Trades Impacted
R402.4.1.2	Air leakage: With change in test standard, air leakage is reduced from (approx.) 5.5 ACH50 to 5.0 ACH50.	— Slight cost difference, since most homes meet this standard already.	+ Savings estimate of approximately one percent of total home energy use.	All.	Envelope sealing.
R402.4.2	Fireplace damper: Fireplaces must have tight-fitting damper and outdoor combustion air.	+ Cost of damper and combustion air source. Note: This is currently a requirement under the IRC.	+ Reduction in heat lost up chimney and air infiltration during fireplace operation.	Houses with fireplaces.	Fireplace.
R402.4.3	Fenestration air leakage: Door and window air leakage rate limits 0.3 cfm/SF for windows, 0.5 cfm for doors.	+ May be additional cost for doors and windows labeled with tested air leakage rate. However, since envelope field testing is already required, the improved fenestration may make air barrier compliance easier.	+ (slight) Overall envelope is already being tested anyway.	All.	Window, door.
R403.2.2.1	Air handler sealing: Air handlers must be sealed for max two percent leakage.	+ Since the IECC is a national standard, all air handlers will soon be required to comply, so there may be no extra cost.	+ Reduction in air leakage losses at air handler.	All.	HVAC.

Section	<u>Changes with Limited Cost</u>	Construction Cost Impacts	Energy Savings	Building Types	Trades Impacted
R403.5.1 Table	Fan efficacy: Ventilation fan efficacy limits.	+ As a national standard, this requirement should become part of standard fan performance, so there may be no extra cost.	+ Reduced fan energy.	All.	HVAC.
R403.8	Snow melt controls: Snow melt systems require auto shutoff when air temp is above forty and auto or manual shutoff when pavement temp is above fifty.	+ (slight) Adds cost of thermal sensors and switch.	+ Prevents snow melt from being left on during warmer weather (or perhaps permanently).	Homes with snow melt systems.	Snow melt systems and controls.
R403.9.2	Pool and spa controls: Requires time switches on heaters for pools and permanent in-ground spas.	+ (slight) Pool heater controls must include auto time switch, unless they have built-in timer.	+ Can prevent pool heater from running during hours when not needed.	Homes with pools and in-ground spas.	Pool and spa.
R404.1	Lamps vs. luminaires: Change from luminaire efficacy to lamp type as basis for code. Allows std [standard] screw-base fixtures.	(-) Reduced costs for more common light fixtures and lamps.	— No long-term energy use impact, since incandescent lamps are being phased out at the federal level.	All.	Lighting.

A copy of the statement may be obtained by contacting Tim Nogler, SBCC, P.O. Box 41449, Olympia, WA 98504-1449, phone (360) 407-9280, fax (360) 586-9088, e-mail sbcc@ga.wa.gov.

A cost-benefit analysis is not required under RCW 34.05.328. The SBCC is not one of the agencies identified as required to prepare an analysis. However, the council intends to prepare an analysis prior to the final adoption of these rules and a copy can be requested using the same information as provided for the small business economic impact statement.

July 31, 2012  
Ray Allshouse  
Council Chair

**Chapter 51-11R WAC**

**STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE 2012 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE, RESIDENTIAL**

NEW SECTION

**WAC 51-11R-10000 Chapter 1 [RE]—Scope and administration.**

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11R-10100 Section R101—Scope and general requirements.**

**R101.1 Title.** This code shall be known as the *International Energy Conservation Code* of [NAME OF JURISDICTION], and shall be cited as such. It is referred to herein as "this code."

**R101.2 Scope.** This code applies to *residential buildings* and the buildings sites and associated systems and equipment. This code shall be the maximum and minimum energy code for residential construction in each town, city and county.

**R101.3 Intent.** This code shall regulate the design and construction of buildings for the effective use and conservation of energy over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

**R101.4 Applicability.** Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

**R101.4.1 Existing buildings.** Except as specified in this chapter, this code shall not be used to require the removal,

*alteration* or abandonment of, nor prevent the continued use and maintenance of, an existing building or building system lawfully in existence at the time of adoption of this code.

**R101.4.2 Historic buildings.** The building official may modify the specific requirements of this code for historic buildings and require in lieu of alternate requirements which will result in a reasonable degree of energy efficiency. This modification may be allowed for those buildings or structures that are listed in the state or national register of historic places; designated as a historic property under local or state designation law or survey; certified as a contributing resource with a national register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the national or state registers of historic places either individually or as a contributing building to a historic district by the state historic preservation officer or the keeper of the national register of historic places.

**R101.4.3 Additions, alterations, renovations or repairs.** Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations or repairs shall not create an unsafe or hazardous condition or overload existing building systems. An addition shall be deemed to comply with this code if the addition alone complies or if the existing building and addition comply with this code as a single building.

EXCEPTION: The following need not comply provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Glass only replacements in an existing sash and frame.
3. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation. 2x4 framed walls shall be insulated to a minimum of R-15 and 2x6 framed walls shall be insulated to a minimum of R-21.
4. Construction where the existing roof, wall or floor cavity is not exposed.
5. Reroofing for roofs where neither the sheathing nor the insulation is exposed. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.
6. Replacement of existing doors that separate *conditioned space* from the exterior shall not require the installation of a vestibule or revolving door, provided, however, that an existing vestibule that separates a *conditioned space* from the exterior shall not be removed.
7. Alterations that replace less than 60 percent of the luminaires in a space, provided that such alterations do not increase the installed interior lighting power.
8. Alterations that replace only the bulb and ballast within the existing luminaires in a space provided that the *alteration* does not increase the installed interior lighting power.

The building official may approve designs of alterations or repairs which do not fully conform with all of the requirements of this code where in the opinion of the building official full compliance is physically impossible and/or economically impractical and:

1. The alteration or repair improves the energy efficiency of the building; or
2. The alteration or repair is energy efficient and is necessary for the health, safety, and welfare of the general public.

**R101.4.3.1 Mechanical systems.** When a space-conditioning system is altered by the installation or replacement of space-conditioning equipment (including replacement of the air handler, outdoor condensing unit of a split system air conditioner or heat pump, cooling or heating coil, or the furnace heat exchanger), the duct system that is connected to the new or replacement space-conditioning equipment shall be tested as specified in RS-33. The test results shall be provided to the building official and the homeowner.

EXCEPTIONS:

1. Duct systems that are documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in RS-33.
2. Ducts with less than 40 linear feet in unconditioned spaces.
3. Existing duct systems constructed, insulated or sealed with asbestos.
4. Additions of less than 750 square feet.

**R101.4.4 Change in occupancy or use.** Any space not within the scope of Section R101.2 which is converted to space that is within the scope of Section R101.2 shall be brought into full compliance with this code.

Spaces undergoing a change in occupancy that would result in an increase in demand for either fossil fuel or electrical energy shall comply with this code.

**R101.4.5 Change in space conditioning.** Any nonconditioned space that is altered to become *conditioned space* shall be required to be brought into full compliance with this code.

**R101.4.6 Mixed occupancy.** Where a building includes both *residential* and *commercial* occupancies, each occupancy shall be separately considered and meet the applicable provisions of the IECC - Commercial and Residential Provisions.

**R101.5 Compliance.** *Residential buildings* shall meet the provisions of IECC - Residential Provisions. *Commercial buildings* shall meet the provisions of IECC - Commercial Provisions.

**R101.5.1 Compliance materials.** The *code official* shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this code.

**R101.5.2 Low energy buildings.** The following buildings, or portions thereof, separated from the remainder of the building by *building thermal envelope* assemblies complying with this code shall be exempt from the *building thermal envelope* provisions of this code.

1. Those with a peak design rate of energy usage less than 3.4 Btu/h • ft<sup>2</sup> (10.7 W/m<sup>2</sup>) or 1.0 watt/ft<sup>2</sup> (10.7 W/m<sup>2</sup>) of floor area for space conditioning purposes.
2. Those that do not contain *conditioned space*.
3. Greenhouses isolated from any conditioned space and not intended for occupancy.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

### **WAC 51-11R-10200 Section R102—Alternate materials—Method of construction, design or insulating systems.**

**R102.1 General.** This code is not intended to prevent the use of any material, method of construction, design or insulating system not specifically prescribed herein, provided that such construction, design or insulating system has been *approved* by the *code official* as meeting the intent of this code.

#### NEW SECTION

### **WAC 51-11R-10300 Section R103—Construction documents.**

**R103.1 General.** Construction documents and other supporting data shall be submitted in one or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the *code official* is authorized to require necessary construction documents to be prepared by a registered design professional.

**EXCEPTION:** The *code official* is authorized to waive the requirements for construction documents or other supporting data if the *code official* determines they are not necessary to confirm compliance with this code.

**R103.2 Information on construction documents.** Construction documents shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted when *approved* by the *code official*. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall include, but are not limited to, as applicable, insulation materials and their *R*-values; fenestration *U*-factors and SHGCs; area-weighted *U*-factor and SHGC calculations; mechanical system design criteria; mechanical and service water heating system and equipment types, sizes and efficiencies; economizer description; equipment and systems controls; fan motor horsepower (hp) and controls; duct sealing, duct and pipe insulation and location; lighting fixture schedule with wattage and control narrative; and air sealing details.

**R103.3 Examination of documents.** The *code official* shall examine or cause to be examined the accompanying construction documents and shall ascertain whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.

**R103.3.1 Approval of construction documents.** When the *code official* issues a permit where construction documents are required, the construction documents shall be endorsed in writing and stamped "Reviewed for Code Compliance." Such *approved* construction documents shall not be changed,

modified or altered without authorization from the *code official*. Work shall be done in accordance with the *approved* construction documents.

One set of construction documents so reviewed shall be retained by the *code official*. The other set shall be returned to the applicant, kept at the site of work and shall be open to inspection by the *code official* or a duly authorized representative.

**R103.3.2 Previous approvals.** This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

**R103.3.3 Phased approval.** The *code official* shall have the authority to issue a permit for the construction of part of an energy conservation system before the construction documents for the entire system have been submitted or *approved*, provided adequate information and detailed statements have been filed complying with all pertinent requirements of this code. The holders of such permit shall proceed at their own risk without assurance that the permit for the entire energy conservation system will be granted.

**R103.4 Amended construction documents.** Changes made during construction that are not in compliance with the *approved* construction documents shall be resubmitted for approval as an amended set of construction documents.

**R103.5 Retention of construction documents.** One set of *approved* construction documents shall be retained by the *code official* for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws.

#### NEW SECTION

### **WAC 51-11R-10400 Section R104—Inspections.**

**R104.1 General.** Construction work for which a permit is required shall be subject to inspection by the *code official*.

**R104.2 Required approvals.** Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the *code official*. The *code official*, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the *code official*.

**R104.2.1 Wall insulation inspection.** The building official, upon notification, shall make a wall insulation inspection in addition to those inspections required in Section R109 of the International Residential Code. This inspection shall be made after all wall and cavity insulation is in place and prior to cover.

**R104.3 Final inspection.** The building shall have a final inspection and not be occupied until *approved*.

**R104.4 Reinspection.** A building shall be reinspected when determined necessary by the *code official*.

**R104.5 Approved inspection agencies.** The *code official* is authorized to accept reports of *approved* inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

**R104.6 Inspection requests.** It shall be the duty of the holder of the permit or their duly authorized agent to notify the *code official* when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

**R104.7 Reinspection and testing.** Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the *code official* for inspection and testing.

**R104.8 Approval.** After the prescribed tests and inspections indicate that the work complies in all respects with this code, a notice of approval shall be issued by the *code official*.

**R104.8.1 Revocation.** The *code official* is authorized to, in writing, suspend or revoke a notice of approval issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure, premise, or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.

#### NEW SECTION

##### **WAC 51-11R-10500 Section R105—Validity.**

**R105.1 General.** If a portion of this code is held to be illegal or void, such a decision shall not affect the validity of the remainder of this code.

#### NEW SECTION

##### **WAC 51-11R-10600 Section R106—Referenced standards.**

**R106.1 Referenced codes and standards.** The codes and standards referenced in this code shall be those listed in Chapter 5, and such codes and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections R106.1.1 and R106.1.2.

**R106.1.1 Conflicts.** Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

**R106.1.2 Provisions in referenced codes and standards.** Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take

precedence over the provisions in the referenced code or standard.

**R106.2 Conflicting requirements.** Where the provisions of this code and the referenced standards conflict, the provisions of this code shall take precedence.

**R106.3 Application of references.** References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

**R106.4 Other laws.** The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. In addition to the requirements of this code, all occupancies shall conform to the provisions included in the state building code (chapter 19.27 RCW). In case of conflicts among codes enumerated in RCW 19.27.031 (1) through (4) and this code, an earlier named code shall govern over those following. In the case of conflict between the duct sealing and insulation requirements of this code and the duct insulation requirements of Sections 603 and 604 of the *International Mechanical Code*, the duct insulation requirements of this code shall govern.

#### NEW SECTION

##### **WAC 51-11R-10700 Section R107—Fees.**

**R107.1 Fees.** A permit shall not be issued until the fees prescribed in Section R107.2 have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

**R107.2 Schedule of permit fees.** A fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority.

**R107.3 Work commencing before permit issuance.** Any person who commences any work before obtaining the necessary permits shall be subject to an additional fee established by the *code official*, which shall be in addition to the required permit fees.

**R107.4 Related fees.** The payment of the fee for the construction, *alteration*, removal or demolition of work done in connection to or concurrently with the work or activity authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

**R107.5 Refunds.** The *code official* is authorized to establish a refund policy.

#### NEW SECTION

##### **WAC 51-11R-10800 Section R108—Stop work order.**

**R108.1 Authority.** Whenever the *code official* finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or unsafe, the *code official* is authorized to issue a stop work order.

**R108.2 Issuance.** The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

**R108.3 Emergencies.** Where an emergency exists, the *code official* shall not be required to give a written notice prior to stopping the work.

**R108.4 Failure to comply.** Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than [AMOUNT] dollars or more than [AMOUNT] dollars.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

#### **WAC 51-11R-10900 Section R109—Board of appeals.**

**R109.1 General.** In order to hear and decide appeals of orders, decisions or determinations made by the *code official* relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The *code official* shall be an ex officio member of said board but shall have no vote on any matter before the board. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *code official*.

**R109.2 Limitations on authority.** An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

**R109.3 Qualifications.** The board of appeals shall consist of members who are qualified by experience and training and are not employees of the jurisdiction.

#### NEW SECTION

**WAC 51-11R-11000 Section R110—Violations.** It shall be unlawful for any person, firm, or corporation to erect or construct any building, or remodel or rehabilitate any existing building or structure in the state, or allow the same to be done, contrary to or in violation of any of the provisions of this code.

#### NEW SECTION

**WAC 51-11R-11100 Section R111—Liability.** Nothing contained in this code is intended to be nor shall be construed to create or form the basis for any liability on the part of any city or county or its officers, employees or agents for any injury or damage resulting from the failure of a building to conform to the provisions of this code.

#### NEW SECTION

#### **WAC 51-11R-20000 Chapter 2 [RE]—Definitions.**

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

#### **WAC 51-11R-20100 Section R201—General.**

**R201.1 Scope.** Unless stated otherwise, the following words and terms in this code shall have the meanings indicated in this chapter.

**R201.2 Interchangeability.** Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural includes the singular.

**R201.3 Terms defined in other codes.** Terms that are not defined in this code but are defined in the *International Building Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code* or the *International Residential Code* shall have the meanings ascribed to them in those codes.

**R201.4 Terms not defined.** Terms not defined by this chapter shall have ordinarily accepted meanings such as the context implies.

#### NEW SECTION

#### **WAC 51-11R-20200 Section R202—General definitions.**

#### NEW SECTION

#### **WAC 51-11R-20201 Section R202.1—A.**

**ABOVE-GRADE WALL.** A wall enclosing *conditioned space* that is not a below-grade wall. This includes between-floor spandrels, peripheral edges of floors, roof and basement knee walls, dormer walls, gable end walls, walls enclosing a mansard roof and skylight shafts.

**ACCESSIBLE.** Admitting close approach as a result of not being guarded by locked doors, elevation or other effective means (see "Readily accessible").

**ADDITION.** An extension or increase in the *conditioned space* floor area or height of a building or structure.

**ADVANCED FRAMED WALLS.** Studs framed on 24-inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and one stud is used to support each header. Headers consist of double 2x material with R-10 insulation between the header and exterior sheathing. Interior partition wall/exterior wall



intersections are fully insulated in the exterior wall. (See **Standard Framing** and Appendix A, of this code.)

**AIR BARRIER.** Material(s) assembled and joined together to provide a barrier to air leakage through the building envelope. An air barrier may be a single material or a combination of materials.

**ALTERATION.** Any construction or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a mechanical system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit.

**APPROVED.** Approval by the *code official* as a result of investigation and tests conducted by him or her, or by reason of accepted principles or tests by nationally recognized organizations.

**AUTOMATIC.** Self-acting, operating by its own mechanism when actuated by some impersonal influence, as, for example, a change in current strength, pressure, temperature or mechanical configuration (see "Manual").

#### NEW SECTION

##### **WAC 51-11R-20202 Section R202.2—B.**

**BASEMENT WALL.** See *above-grade wall* and *below-grade wall*.

**BELOW-GRADE WALL.** That portion of a wall in the building envelope that is entirely below the finish grade and in contact with the ground.

**BUILDING.** Any structure used or intended for supporting or sheltering any use or occupancy, including any mechanical systems, service water heating systems and electric power and lighting systems located on the building site and supporting the building.

**BUILDING SITE.** A contiguous area of land that is under the ownership or control of one entity.

**BUILDING THERMAL ENVELOPE.** The *below-grade walls*, *above-grade walls*, floor, roof, and any other building elements that enclose *conditioned space* or provides a boundary between *conditioned space* and exempt or unconditioned space.

#### NEW SECTION

##### **WAC 51-11R-20203 Section R202.3—C.**

**C-FACTOR (THERMAL CONDUCTANCE).** The coefficient of heat transmission (surface to surface) through a building component or assembly, equal to the time rate of heat flow per unit area and the unit temperature difference between the warm side and cold side surfaces ( $\text{Btu/h ft}^2 \times ^\circ\text{F}$ ) [ $\text{W}/(\text{m}^2 \times \text{K})$ ].

**CODE OFFICIAL.** The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.

**COMMERCIAL BUILDING.** For this code, all buildings that are not included in the definition of "Residential buildings."

**CONDITIONED FLOOR AREA.** The horizontal projection of the floors associated with the *conditioned space*.

**CONDITIONED SPACE.** An area or room within a building being heated or cooled, containing uninsulated ducts, or with a fixed opening directly into an adjacent *conditioned space*.

**CONTINUOUS AIR BARRIER.** A combination of materials and assemblies that restrict or prevent the passage of air through the building thermal envelope.

**CONTINUOUS INSULATION (c.i.).** Insulation that is continuous across all structural members without thermal bridges other than fasteners and service openings. It is installed on the interior or exterior or is integral to any opaque surface of the building envelope.

**CURTAIN WALL.** Fenestration products used to create an external nonload-bearing wall that is designed to separate the exterior and interior environments.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

##### **WAC 51-11R-20204 Section R202.4—D.**

**DEMAND RECIRCULATION WATER SYSTEM.** A water distribution system where pump(s) prime the service hot water piping with heated water upon demand for hot water.

**DUCT.** A tube or conduit utilized for conveying air. The air passages of self-contained systems are not to be construed as air ducts.

**DUCT SYSTEM.** A continuous passageway for the transmission of air that, in addition to ducts, includes duct fittings, dampers, plenums, fans and accessory air-handling equipment and appliances.

**DWELLING UNIT.** A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

#### NEW SECTION

##### **WAC 51-11R-20205 Section R202.5—E.**

**ENERGY ANALYSIS.** A method for estimating the annual energy use of the *proposed design* and *standard reference design* based on estimates of energy use.

**ENERGY COST.** The total estimated annual cost for purchased energy for the building functions regulated by this code, including applicable demand charges.

**ENERGY SIMULATION TOOL.** An *approved* software program or calculation-based methodology that projects the annual energy use of a building.

**ENTRANCE DOOR.** Fenestration products used for ingress, egress and access in nonresidential buildings including, but not limited to, exterior entrances that utilize latching hardware and automatic closers and contain over 50 percent glass specifically designed to withstand heavy use and possibly abuse.

**EXTERIOR WALL.** Walls including both above-grade walls and below-grade walls.

#### NEW SECTION

##### **WAC 51-11R-20206 Section R202.6—F.**

**FENESTRATION.** Skylights, roof windows, vertical windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors. Fenestration includes products with glass and nonglass glazing materials.

**FENESTRATION AREA.** Total area of the fenestration measured using the rough opening, and including the glazing, sash and frame.

**FENESTRATION PRODUCT, FIELD-FABRICATED.** A fenestration product whose frame is made at the construction site of standard dimensional lumber or other materials that were not previously cut, or otherwise formed with the specific intention of being used to fabricate a fenestration product or exterior door. Field fabricated does not include site-built fenestration.

**FENESTRATION PRODUCT, SITE-BUILT.** A fenestration designed to be made up of field-glazed or field-assembled units using specific factory cut or otherwise factory-formed framing and glazing units. Examples of site-built fenestration include storefront systems, curtain walls, and atrium roof systems.

**F-FACTOR.** The perimeter heat loss factor for slab-on-grade floors ( $\text{Btu/h} \times \text{ft} \times ^\circ\text{F}$ ) [ $\text{W}/(\text{m} \times \text{K})$ ].

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

##### **WAC 51-11R-20207 Section R202.7—G.**

#### NEW SECTION

##### **WAC 51-11R-20208 Section R202.8—H.**

**HEATED SLAB-ON-GRADE FLOOR.** Slab-on-grade floor construction in which the heating elements, hydronic tubing, or hot air distribution system is in contact with, or placed within or under, the slab.

**HIGH-EFFICACY LAMPS.** Compact fluorescent lamps, T-8 or smaller diameter linear fluorescent lamps, or lamps with a minimum efficacy of:

1. 60 lumens per watt for lamps over 40 watts;
2. 50 lumens per watt for lamps over 15 watts to 40 watts; and
3. 40 lumens per watt for lamps 15 watts or less.

#### NEW SECTION

##### **WAC 51-11R-20209 Section R202.9—I.**

**INFILTRATION.** The uncontrolled inward air leakage into a building caused by the pressure effects of wind or the effect of differences in the indoor and outdoor air density or both.

**INSULATING SHEATHING.** An insulating board with a core material having a minimum R-value of R-2.

**INTEGRATED ENERGY EFFICIENCY RATIO (IEER).** A single-number figure of merit expressing cooling part-load EER efficiency for unitary air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities for the equipment.

**INTERMEDIATE FRAMED WALLS.** Studs framed on 16-inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and each opening is framed by two studs. Headers shall be insulated to R-10.

#### NEW SECTION

##### **WAC 51-11R-20210 Section R202.10—J.**

#### NEW SECTION

##### **WAC 51-11R-20211 Section 202.11—K.**

#### NEW SECTION

##### **WAC 51-11R-20212 Section R202.12—L.**

**LABELED.** Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

**LISTED.** Equipment, materials, products or services included in a list published by an organization acceptable to the *code official* and concerned with evaluation of products or services that maintains periodic inspection of production of *listed* equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

**LOW-VOLTAGE LIGHTING.** A lighting system consisting of an isolating power supply, the low voltage luminaires, and associated equipment that are all identified for the use. The output circuits of the power supply are rated for not more than 25 amperes and operate at 30 volts (42.4 volts peak) or less under all load conditions.

#### NEW SECTION

##### **WAC 51-11R-20213 Section R202.13—M.**

**MANUAL.** Capable of being operated by personal intervention (see "Automatic").

#### NEW SECTION

##### **WAC 51-11R-20214 Section R202.14—N.**

#### NEW SECTION

##### **WAC 51-11R-20215 Section R202.15—O.**

#### NEW SECTION

##### **WAC 51-11R-20216 Section R202.16—P.**

**PROPOSED DESIGN.** A description of the proposed building used to estimate annual energy use for determining compliance based on total building performance.

#### NEW SECTION

##### **WAC 51-11R-20217 Section R202.17—Q.**

NEW SECTION**WAC 51-11R-20218 Section R202.18—R.**

**READILY ACCESSIBLE.** Capable of being reached quickly for operation, renewal or inspection without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders or access equipment (see "*Accessible*").

**REPAIR.** The reconstruction or renewal of any part of an existing building.

**RESIDENTIAL BUILDING.** For this code, includes detached one- and two-family dwellings and multiple single-family dwellings (townhouses) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane.

**ROOF ASSEMBLY.** A system designed to provide weather protection and resistance to design loads. The system consists of a roof covering and roof deck or a single component serving as both the roof covering and the roof deck. A roof assembly includes the roof covering, underlayment, roof deck, insulation, vapor retarder and interior finish.

**R-VALUE (THERMAL RESISTANCE).** The inverse of the time rate of heat flow through a body from one of its bounding surfaces to the other surface for a unit temperature difference between the two surfaces, under steady state conditions, per unit area ( $h \cdot \text{ft}^2 \cdot ^\circ\text{F}/\text{Btu}$ ) [ $\text{m}^2 \cdot \text{K}/\text{W}$ ].

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION**WAC 51-11R-20219 Section R202.19—S.**

**SERVICE WATER HEATING.** Supply of hot water for purposes other than comfort heating.

**SKYLIGHT.** Glass or other transparent or translucent glazing material installed at a slope of less than 60 degrees (1.05 rad) from horizontal. Glazing material in skylights, including unit skylights, solariums, sunrooms, roofs and sloped walls is included in this definition.

**SLAB-ON-GRADE FLOOR.** That portion of a slab floor of the building envelope that is in contact with the ground and that is either above grade or is less than or equal to 24 inches below the final elevation of the nearest exterior grade.

**SMALL BUSINESS.** Any business entity (including a sole proprietorship, corporation, partnership or other legal entity) which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has fifty or fewer employees.

**SOLAR HEAT GAIN COEFFICIENT (SHGC).** The ratio of the solar heat gain entering the space through the fenestration assembly to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed solar radiation which is then reradiated, conducted or convected into the space.

**STANDARD FRAMING.** All framing practices not defined as "intermediate" or "advanced" shall be considered standard. (See **Advanced Framed Wall, Intermediate Framed Wall**).

**STANDARD REFERENCE DESIGN.** A version of the *proposed design* that meets the minimum requirements of this code and

is used to determine the maximum annual energy use requirement for compliance based on total building performance.

NEW SECTION**WAC 51-11R-20220 Section R202.20—T.**

**THERMAL ISOLATION.** Physical and space conditioning separation from *conditioned space(s)*. The *conditioned space(s)* shall be controlled as separate zones for heating and cooling or conditioned by separate equipment.

**THERMOSTAT.** An automatic control device used to maintain temperature at a fixed or adjustable set point.

NEW SECTION**WAC 51-11R-20221 Section R202.21—U.**

**U-FACTOR (THERMAL TRANSMITTANCE).** The coefficient of heat transmission (air to air) through a building component or assembly, equal to the time rate of heat flow per unit area and unit temperature difference between the warm side and cold side air films ( $\text{Btu}/\text{h} \cdot \text{ft}^2 \cdot ^\circ\text{F}$ ) [ $\text{W}/(\text{m}^2 \cdot \text{K})$ ].

**UNHEATED SLAB-ON-GRADE FLOOR.** A slab-on-grade floor that is not a heated slab-on-grade floor.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION**WAC 51-11R-20222 Section R202.22—V.**

**VENTILATION.** The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, any space.

**VENTILATION AIR.** That portion of supply air that comes from outside (outdoors) plus any recirculated air that has been treated to maintain the desired quality of air within a designated space.

**VERTICAL FENESTRATION.** All fenestration other than skylights.

**VISIBLE TRANSMITTANCE [VT].** The ratio of visible light entering the space through the fenestration product assembly to the incident visible light, visible transmittance, includes the effects of glazing material and frame and is expressed as a number between 0 and 1.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION**WAC 51-11R-20223 Section R202.23—W.**

**WHOLE HOUSE MECHANICAL VENTILATION SYSTEM.** An exhaust system, supply system, or combination thereof that is designed to mechanically exchange indoor air with outdoor air when operating continuously or through a programmed intermittent schedule to satisfy the whole house ventilation rates.

NEW SECTION

**WAC 51-11R-20224 Section R202.24—XYZ.**

**ZONE.** A space or group of spaces within a building with heating or cooling requirements that are sufficiently similar so that desired conditions can be maintained throughout using a single controlling device.

NEW SECTION

**WAC 51-11R-30000 Chapter 3 [RE]—General requirements.**

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11R-30100 Section R301—Climate zones.**

**R301.1 General.** Climate zones from Table R301.1 shall be used in determining the applicable requirements from Chapter 4. Locations not in Table R301.1 (outside the United States) shall be assigned a climate zone based on Section R301.3.

**R301.2 Warm humid counties.** Warm humid counties are identified in Table R301.1 by an asterisk.

**R301.3 International climate zones.** The climate zone for any location outside the United States shall be determined by applying Table R301.3(1) and then Table R301.3(2).

**TABLE R301.1**

**CLIMATE ZONES, MOISTURE REGIMES, AND WARM-HUMID DESIGNATIONS BY STATE AND COUNTY**

Key: A - Moist, B - Dry, C - Marine. Absence of moisture designation indicates moisture regime is irrelevant. Asterisk (\*) indicates a warm-humid location.

**WASHINGTON**

5B Adams	4C Grays Harbor	4C Pierce
5B Asotin	4C Island	4C San Juan
5B Benton	4C Jefferson	4C Skagit
5B Chelan	4C King	5B Skamania
4C Clallam	4C Kitsap	4C Snohomish
4C Clark	5B Kittitas	5B Spokane
5B Columbia	5B Klickitat	6B Stevens
4C Cowlitz	4C Lewis	4C Thurston
5B Douglas	5B Lincoln	4C Wahkiakum
6B Ferry	4C Mason	5B Walla Walla
5B Franklin	6B Okanogan	4C Whitcom
5B Garfield	4C Pacific	5B Whitman
5B Grant	6B Pend Oreille	5B Yakima

NEW SECTION

**WAC 51-11R-30200 Section R302—Design conditions.**

**R302.1 Interior design conditions.** The interior design temperatures used for heating and cooling load calculations shall be a maximum of 72°F (22°C) for heating and minimum of 75°F (24°C) for cooling.

**R302.2 Exterior design conditions.** The heating or cooling outdoor design temperatures shall be selected from Appendix C.

NEW SECTION

**WAC 51-11R-30300 Section R303—Materials, systems and equipment.**

NEW SECTION

**WAC 51-11R-30310 Section R303.1—Identification.**

**R303.1 Identification.** Materials, systems and equipment shall be identified in a manner that will allow a determination of compliance with the applicable provisions of this code.

**R303.1.1 Building thermal envelope insulation.** An R-value identification mark shall be applied by the manufacturer to each piece of *building thermal envelope* insulation 12 inches (305 mm) or greater in width. Alternately, the insulation installers shall provide a certification listing the type, manufacturer and R-value of insulation installed in each element of the *building thermal envelope*. For blown or sprayed insulation (fiberglass and cellulose), the initial installed thickness, settled thickness, settled R-value, installed density, coverage area and number of bags installed shall be *listed* on the certification. For sprayed polyurethane foam (SPF) insulation, the installed thickness of the areas covered and R-value of installed thickness shall be *listed* on the certification. The insulation installer shall sign, date and post the certification in a conspicuous location on the job site.

**R303.1.1.1 Blown or sprayed roof/ceiling insulation.** The thickness of blown-in or sprayed roof/ceiling insulation (fiberglass or cellulose) shall be written in inches (mm) on markers that are installed at least one for every 300 square feet (28 m<sup>2</sup>) throughout the attic space. The markers shall be affixed to the trusses or joists and marked with the minimum initial installed thickness with numbers a minimum of 1 inch (25 mm) in height. Each marker shall face the attic access opening. Spray polyurethane foam thickness and installed R-value shall be *listed* on certification provided by the insulation installer.

**R303.1.2 Insulation mark installation.** Insulating materials shall be installed such that the manufacturer's R-value mark is readily observable upon inspection.

**R303.1.3 Fenestration product rating.** U-factors of fenestration products (windows, doors and skylights) shall be determined in accordance with NFRC 100 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled U-factor shall be assigned a default U-factor from Table R303.1.3(1), R303.1.3(2) or R303.1.3(4). The solar heat gain coefficient (SHGC) and visible transmittance (VT) of glazed fenestration products (windows, glazed doors and skylights) shall be determined in accordance with NFRC 200 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled SHGC or VT shall be assigned a default SHGC or VT from Table R303.1.3(3).

EXCEPTION: Units without NFRC ratings produced by a *small business* may be assigned default *U*-factors from Table R303.1.3(5) for vertical fenestration.

**R303.1.4 Insulation product rating.** The thermal resistance (*R*-value) of insulation shall be determined in accordance with the U.S. Federal Trade Commission *R*-value rule (C.F.R. Title 16, Part 460) in units of  $h \times ft^2 \times ^\circ F/Btu$  at a mean temperature of 75°F (24°C).

FRAME TYPE	SINGLE PANE	DOUBLE PANE	SKYLIGHT See Table R303.1.3(4)
Metal	1.20	0.80	
Metal with Thermal Break <sup>1</sup>	1.10	0.65	
Nonmetal or Metal Clad	0.95	0.55	
Glazed Block	0.60		

<sup>1</sup>Metal Thermal Break = A metal thermal break framed window shall incorporate the following minimum design characteristics:  
 a) The thermal conductivity of the thermal break material shall be not more than 3.6 Btu-in/h/ft<sup>2</sup>/°F;  
 b) The thermal break material must produce a gap in the frame material of not less than 0.210 inches; and  
 c) All metal framing members of the products exposed to interior and exterior air shall incorporate a thermal break meeting the criteria in a) and b) above.

NEW SECTION

**WAC 51-11R-30311 Table R303.1.3(1)—Default glazed fenestration *U*-factor.**

TABLE R303.1.3(1)  
 DEFAULT GLAZED FENESTRATION *U*-FACTOR

NEW SECTION

**WAC 51-11R-30312 Table R303.1.3(2)—Default door *U*-factors.**

TABLE R303.1.3(2)  
 DEFAULT DOOR *U*-FACTORS

Door Type	No Glazed Fenestration	Single Glazing	Double Glazing with 1/4 in. Airspace	Double Glazing with 1/2 in. Airspace	Double Glazing with e = 0.10, 1/2 in. Argon
<b>SWINGING DOORS (Rough opening - 38 in. x 82 in.)</b>					
<b>Slab Doors</b>					
Wood slab in wood frame <sup>a</sup>	0.46				
6% glazed fenestration (22 in. x 8 in. lite)	-	0.48	0.47	0.46	0.44
25% glazed fenestration (22 in. x 36 in. lite)	-	0.58	0.48	0.46	0.42
45% glazed fenestration (22 in. x 64 in. lite)	-	0.69	0.49	0.46	0.39
More than 50% glazed fenestration	Use Table R303.1.3(1)				
Insulated steel slab with wood edge in wood frame <sup>a</sup>	0.16				
6% glazed fenestration (22 in. x 8 in. lite)	-	0.21	0.20	0.19	0.18
25% glazed fenestration (22 in. x 36 in. lite)	-	0.39	0.28	0.26	0.23
45% glazed fenestration (22 in. x 64 in. lite)	-	0.58	0.38	0.35	0.26
More than 50% glazed fenestration	Use Table R303.1.3(1)				
Foam insulated steel slab with metal edge in steel frame <sup>b</sup>	0.37				
6% glazed fenestration (22 in. x 8 in. lite)	-	0.44	0.42	0.41	0.39
25% glazed fenestration (22 in. x 36 in. lite)	-	0.55	0.50	0.48	0.44

Door Type	No Glazed Fenestration	Single Glazing	Double Glazing with 1/4 in. Airspace	Double Glazing with 1/2 in. Airspace	Double Glazing with e = 0.10, 1/2 in. Argon
45% glazed fenestration (22 in. x 64 in. lite)	-	0.71	0.59	0.56	0.48
More than 50% glazed fenestration	Use Table R303.1.3(1)				
Cardboard honeycomb slab with metal edge in steel frame <sup>b</sup>	0.61				
<b>Style and Rail Doors</b>					
Sliding glass doors/French doors	Use Table R303.1.3(1)				
<b>Site-Assembled Style and Rail Doors</b>					
Aluminum in aluminum frame	-	1.32	0.99	0.93	0.79
Aluminum in aluminum frame with thermal break	-	1.13	0.80	0.74	0.63

Note: Appendix A Tables A107.1(2) through A107.1(4) may also be used if applicable.

<sup>a</sup> Thermally broken sill (add 0.03 for nonthermally broken sill).

<sup>b</sup> Nonthermally broken sill.

<sup>c</sup> Nominal *U*-factors are through the center of the insulated panel before consideration of thermal bridges around the edges of the door section and due to the frame.

NEW SECTION

**WAC 51-11R-30313 Table R303.1.3(3)—Default glazed fenestration SHGC and VT.**

**TABLE R303.1.3(3)  
DEFAULT GLAZED FENESTRATION SHGC AND VT**

	SINGLE GLAZED		DOUBLE GLAZED		GLAZED BLOCK
	Clear	Tinted	Clear	Tinted	
SHGC	0.8	0.7	0.7	0.6	0.6
VT	0.6	0.3	0.6	0.3	0.6

NEW SECTION

**WAC 51-11R-30314 Table R303.1.3(4)—Default *U*-factors for skylights.**

**TABLE R303.1.3(4)  
DEFAULT *U*-FACTORS FOR SKYLIGHTS**

Fenestration Type	Frame Type			
	Aluminum Without Thermal Break	Aluminum With Thermal Break	Reinforced Vinyl/Aluminum-Clad Wood or Vinyl	Wood or Vinyl-Clad Wood/Vinyl Without Reinforcing
Single Glazing glass acrylic/polycarb	U-1.58	U-1.51	U-1.40	U-1.18
	U-1.52	U-1.45	U-1.34	U-1.11
Double Glazing air argon	U-1.05	U-0.89	U-0.84	U-0.67
	U-1.02	U-0.86	U-0.80	U-0.64
Double Glazing, e = 0.20 air argon	U-0.96	U-0.80	U-0.75	U-0.59
	U-0.91	U-0.75	U-0.70	U-0.54

Fenestration Type	Frame Type			
	Aluminum Without Thermal Break	Aluminum With Thermal Break	Reinforced Vinyl/Aluminum-Clad Wood or Vinyl	Wood or Vinyl-Clad Wood/Vinyl Without Reinforcing
Double Glazing, e = 0.10				
air	U-0.94	U-0.79	U-0.74	U-0.58
argon	U-0.89	U-0.73	U-0.68	U-0.52
Double Glazing, e = 0.05				
air	U-0.93	U-0.78	U-0.73	U-0.56
argon	U-0.87	U-0.71	U-0.66	U-0.50
Triple Glazing				
air	U-0.90	U-0.70	U-0.67	U-0.51
argon	U-0.87	U-0.69	U-0.64	U-0.48
Triple Glazing, e = 0.20				
air	U-0.86	U-0.68	U-0.63	U-0.47
argon	U-0.82	U-0.63	U-0.59	U-0.43
Triple Glazing, e = 0.20 on 2 surfaces				
air	U-0.82	U-0.64	U-0.60	U-0.44
argon	U-0.79	U-0.60	U-0.56	U-0.40
Triple Glazing, e = 0.10 on 2 surfaces				
air	U-0.81	U-0.62	U-0.58	U-0.42
argon	U-0.77	U-0.58	U-0.54	U-0.38
Quadruple Glazing, e = 0.10 on 2 surfaces				
air	U-0.78	U-0.59	U-0.55	U-0.39
argon	U-0.74	U-0.56	U-0.52	U-0.36
krypton	U-0.70	U-0.52	U-0.48	U-0.32

1. U-factors are applicable to both glass and plastic, flat and domed units, all spacers and gaps.
2. Emissivities shall be less than or equal to the value specified.
3. Gap fill shall be assumed to be air unless there is a minimum of 90% argon or krypton.
4. Aluminum frame with thermal break is as defined in footnote 1 to Table R303.1.3(1).

**NEW SECTION**

**WAC 51-11R-30315 Table R303.1.3(5)—Small business compliance default table.**

**TABLE R303.1.3(5)  
SMALL BUSINESS COMPLIANCE TABLE  
DEFAULT U-FACTORS FOR VERTICAL FENESTRATION**

Vertical Fenestration Description				Frame Type		
Panes	Low-e <sup>1</sup>	Spacer	Fill	Any Frame	Aluminum Thermal Break <sup>2</sup>	Wood/Vinyl/Fiberglass
Double <sup>3</sup>	A	Any	Argon	0.48	0.41	0.32
	B	Any	Argon	0.46	0.39	0.30
	C	Any	Argon	0.44	0.37	0.28
	C	High Performance	Argon	0.42	0.35	Deemed to comply <sup>5</sup>
Triple <sup>4</sup>	A	Any	Air	0.50	0.44	0.26
	B	Any	Air	0.45	0.39	0.22
	C	Any	Air	0.41	0.34	0.20

Vertical Fenestration Description				Frame Type		
Panes	Low-e <sup>1</sup>	Spacer	Fill	Any Frame	Aluminum Thermal Break <sup>2</sup>	Wood/Vinyl/Fiberglass
	Any double low-e	Any	Air	0.35	0.32	0.18

<sup>1</sup> Low-eA (emissivity) shall be 0.24 to 0.16.  
 Low-eB (emissivity) shall be 0.15 to 0.08.  
 Low-eC (emissivity) shall be 0.07 or less.

<sup>2</sup> Aluminum Thermal Break = An aluminum thermal break framed window shall incorporate the following minimum design characteristics:  
 a) The thermal conductivity of the thermal break material shall be not more than 3.6 Btu-in/h/ft<sup>2</sup>/°F;  
 b) The thermal break material must produce a gap in the frame material of not less than 0.210 inches; and  
 c) All metal framing members of the products exposed to interior and exterior air shall incorporate a thermal break meeting the criteria in a and b above.

<sup>3</sup> A minimum air space of 0.375 inches between panes of glass is required for double glazing.

<sup>4</sup> A minimum air space of 0.25 inches between panes of glass is required for triple glazing.

<sup>5</sup> Deemed to comply glazing shall not be used for performance compliance.

NEW SECTION

**WAC 51-11R-30320 Section R303.2—Installation.**

**R303.2 Installation.** All materials, systems and equipment shall be installed in accordance with the manufacturer's installation instructions and the *International Building Code* or *International Residential Code*, as applicable.

**R303.2.1 Protection of exposed foundation insulation.** Insulation applied to the exterior of basement walls, crawlspace walls and the perimeter of slab-on-grade floors shall have a rigid, opaque and weather-resistant protective covering to prevent the degradation of the insulation's thermal performance. The protective covering shall cover the exposed exterior insulation and extend a minimum of 6 inches (153 mm) below grade.

NEW SECTION

**WAC 51-11R-30330 Section R303.3—Maintenance information.**

**R303.3 Maintenance information.** Maintenance instructions shall be furnished for equipment and systems that require preventive maintenance. Required regular maintenance actions shall be clearly stated and incorporated on a readily accessible label. The label shall include the title or publication number for the operation and maintenance manual for that particular model and type of product.

NEW SECTION

**WAC 51-11R-40000 Chapter 4 [RE]—Residential energy efficiency.**

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11R-40100 Section R401—General.**

**R401.1 Scope.** This chapter applies to residential buildings.

**R401.2 Compliance.** Projects shall comply with sections identified as "mandatory" and with either sections identified as "prescriptive" or the performance approach in Section

R405. In addition, one- and two-family dwellings and townhouses, as defined in Section 101.2 of the International Residential Code shall comply with Section R406.

**R401.3 Certificate (Mandatory).** A permanent certificate shall be completed and posted on or within three feet of the electrical distribution panel by the builder or registered design professional. The certificate shall be completed by the builder or registered design professional and shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, *below-grade wall*, crawlspace wall and/or floor) and ducts outside conditioned spaces; U-factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration, and the results from any required duct system and building envelope air leakage testing done on the building. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be *listed* for gas-fired unvented room heaters, electric furnaces or electric baseboard heaters.

NEW SECTION

**WAC 51-11R-40200 Section R402—Building thermal envelope.**

NEW SECTION

**WAC 51-11R-40210 Section R402.1—General.**

**R402.1 General (Prescriptive).** The *building thermal envelope* shall meet the requirements of Sections R402.1.1 through R402.1.4.

**R402.1.1 Insulation and fenestration criteria.** The *building thermal envelope* shall meet the requirements of Table R402.1.1 based on the climate zone specified in Chapter 3.



**R402.1.2 R-value computation.** Insulation material used in layers, such as framing cavity insulation and insulating sheathing, shall be summed to compute the component R-value. The manufacturer's settled R-value shall be used for blown insulation. Computed R-values shall not include an R-value for other building materials or air films.

**R402.1.3 U-factor alternative.** An assembly with a U-factor equal to or less than that specified in Table R402.1.3 shall be permitted as an alternative to the R-value in Table R402.1.1.

**R402.1.4 Total UA alternative.** If the total *building thermal envelope* UA (sum of U-factor times assembly area) is less than or equal to the total UA resulting from using the U-factors in Table R402.1.3 (multiplied by the same assembly area

as in the proposed building), the building shall be considered in compliance with Table R402.1.1. The U-factors for typical construction assemblies are included in Appendix A in chapter 51-11C WAC. These values shall be used for all calculations. Where proposed construction assemblies are not represented in Appendix A, values shall be calculated in accordance with the ASHRAE *Handbook of Fundamentals* using the framing factors listed in Appendix A where applicable and shall include the thermal bridging effects of framing materials. The SHGC requirements shall be met in addition to UA compliance. When using REScheck, the U-factors calculated by the software based on component R-value descriptions are acceptable. For the base building UA calculation, the maximum glazing area is 15% of the floor area.

NEW SECTION

**WAC 51-11R-40211 Table R402.1.1—Insulation and fenestration requirements by component.**

**TABLE R402.1.1  
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT<sup>a</sup>**

Climate Zone	Fenestration U-Factor <sup>b</sup>	Skylight <sup>b</sup> U-Factor	Glazed Fenestration SHGC <sup>b, c</sup>	Ceiling R-Value	Wood Frame Wall <sup>e, k, l</sup> R-Value	Mass Wall R-Value <sup>i</sup>	Floor R-Value	Below-Grade <sup>e, k</sup> Wall R-Value	Slab <sup>d</sup> R-Value & Depth
1	NR	0.75	0.25	30	13	3/4	13	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0
3	0.35	0.55	0.25	38	20 or 13+5 <sup>h</sup>	8/13	19	5/13 <sup>f</sup>	0
4 except Marine	0.35	0.55	0.40	49	20 or 13+5 <sup>h</sup>	8/13	19	10/13	10, 2 ft
5 and Marine 4	0.30	0.50	NR	49	21 int	21/ 21 <sup>h</sup>	30 <sup>g</sup>	10/15/ 21int+TB	10, 2 ft
6	0.30	0.50	NR	49	21+5ci	21+5 <sup>h</sup>	30 <sup>g</sup>	10/15/ 21int+TB	10, 4 ft
7 and 8	0.32	0.55	NR	49	20+5 or 13+10 <sup>h</sup>	19/21	38 <sup>g</sup>	15/19	10, 4 ft

For SI: 1 foot = 304.8 mm, ci = continuous insulation, int = intermediate framing.

<sup>a</sup> R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value specified in the table.

<sup>b</sup> The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.

<sup>c</sup> "10/15/21+TB" means R-10 continuous insulation on the exterior of the wall, or R-15 on the continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21+TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall. "TB" means thermal break between floor slab and basement wall.

<sup>d</sup> R-10 continuous insulation is required under heated slab on grade floors. See R402.2.9.1.

<sup>e</sup> There are no SHGC requirements in the Marine Zone.

<sup>f</sup> Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.

<sup>g</sup> Reserved.

<sup>h</sup> First value is cavity insulation, second is continuous insulation or insulated siding, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation or insulated siding. If structural sheathing covers 40 percent or less of the exterior, continuous insulation R-value shall be permitted to be reduced by no more than R-3 in the locations where structural sheathing is used to maintain a consistent total sheathing thickness.

<sup>i</sup> The second R-value applies when more than half the insulation is on the interior of the mass wall.

<sup>j</sup> For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38.

<sup>k</sup> Int. (intermediate framing) denotes standard framing 16 inches on center with headers insulated with a minimum of R-10 insulation.

<sup>l</sup> Log and solid timber walls with a minimum average thickness of 3.5 inches are exempt from this insulation requirement.

NEW SECTION

**WAC 51-11R-40213 Table R402.1.3—Equivalent *U*-factors.**

TABLE R402.1.3  
EQUIVALENT *U*-FACTORS<sup>a</sup>

Climate Zone	Fenestration <i>U</i> -Factor	Skylight <i>U</i> -Factor	Ceiling <i>U</i> -Factor	Frame Wall <i>U</i> -Factor	Mass Wall <i>U</i> -Factor <sup>b</sup>	Floor <i>U</i> -Factor	Below-Grade Wall <i>U</i> -Factor
1	0.50	0.75	0.035	0.082	0.197	0.064	0.360
2	0.40	0.65	0.030	0.082	0.165	0.064	0.360
3	0.35	0.55	0.030	0.057	0.098	0.047	0.091 <sup>c</sup>
4 except Marine	0.35	0.55	0.026	0.057	0.098	0.047	0.059
5 and Marine 4	0.30	0.50	0.026	0.056	0.056	0.029	0.042
6	0.30	0.50	0.026	0.044	0.044	0.029	0.042
7 and 8	0.32	0.55	0.026	0.048	0.057	0.028	0.050

<sup>a</sup> Nonfenestration *U*-factors shall be obtained from measurement, calculation or an approved source or as specified in Section R402.1.3.

<sup>b</sup> Reserved.

<sup>c</sup> Basement wall *U*-factor of 0.360 in warm-humid locations as defined by Figure R301.1 and Table R301.1.

NEW SECTION

**WAC 51-11R-40220 Section R402.2—Specific insulation requirements.**

**R402.2 Specific insulation requirements (Prescriptive).**

In addition to the requirements of Section R402.1, insulation shall meet the specific requirements of Sections R402.2.1 through R402.2.12.

**R402.2.1 Ceilings with attic spaces.** When Section R402.1.1 would require R-38 in the ceiling, R-30 shall be deemed to satisfy the requirement for R-38 wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Similarly, R-38 shall be deemed to satisfy the requirement for R-49 wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves. This reduction shall not apply to the *U*-factor alternative approach in Section R402.1.3 and the total UA alternative in Section R402.1.4.

**R402.2.1.1 Loose insulation in attic spaces.** Open-blown or poured loose fill insulation may be used in attic spaces where the slope of the ceiling is not more than 3 feet in 12 and there is at least 30 inches of clear distance from the top of the bottom chord of the truss or ceiling joist to the underside of the sheathing at the roof ridge.

**R402.2.3 Eave baffle.** For air permeable insulations in vented attics, a baffle shall be installed adjacent to soffit and eave vents. Baffles shall maintain an opening equal or greater than the size of the vent. The baffle shall extend over the top of the attic insulation. The baffle shall be permitted to be any solid material.

**R402.2.4 Access hatches and doors.** Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weatherstripped and insulated to a level equivalent to the insulation on the surrounding surfaces. Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood framed or

equivalent baffle or retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed *R*-value of the loose fill insulation.

**R402.2.5 Mass walls.** Mass walls for the purposes of this chapter shall be considered above-grade walls of concrete block, concrete, insulated concrete form (ICF), masonry cavity, brick (other than brick veneer), earth (adobe, compressed earth block, rammed earth) and solid timber/logs.

**R402.2.6 Steel-frame ceilings, walls, and floors.** Steel-frame ceilings, walls, and floors shall meet the *U*-factor requirements of Table R402.1.3.

**R402.2.7 Floors.** Floor insulation shall be installed to maintain permanent contact with the underside of the subfloor decking. Insulation supports shall be installed so spacing is no more than 24-inches on center. Foundation vents shall be placed so that the top of the vent is below the lower surface of the floor insulation.

**EXCEPTIONS:**

1. When foundation vents are not placed so that the top of the vent is below the lower surface of the floor insulation, a permanently attached baffle shall be installed at an angle of 30° from horizontal, to divert air flow below the lower surface of the floor insulation.
2. Substantial contact with the surface being insulated is not required in enclosed floor/ceiling assemblies containing ducts where full *R*-value insulation is installed between the duct and the exterior surface.

**R402.2.8 Basement walls.** Below-grade exterior wall insulation used on the exterior (cold) side of the wall shall extend from the top of the below-grade wall to the top of the footing and shall be approved for below-grade use. Above-grade insulation shall be protected. Insulation used on the interior (warm) side of the wall shall extend from the top of the below-grade wall to the below-grade floor level and shall

include R-5 rigid board providing a thermal break between the concrete wall and the slab.

**R402.2.9 Slab-on-grade floors.** The minimum thermal resistance (*R*-value) of the insulation around the perimeter of unheated or heated slab-on-grade floors shall be as specified in Table C402.1.1. The insulation shall be placed on the outside of the foundation or on the inside of the foundation wall. The insulation shall extend downward from the top of the slab for a minimum distance as shown in the table or to the top of the footing, whichever is less, or downward to at least the bottom of the slab and then horizontally to the interior or exterior for the total distance shown in the table. A two-inch by two-inch (maximum) pressure treated nailer may be placed at the finished floor elevation for attachment of interior finish materials. Insulation extending away from the building shall be protected by pavement or by a minimum of 10 inches (254 mm) of soil.

**R402.2.9.1 Heated slab-on-grade floors (Mandatory).** The entire area of a heated slab-on-grade floor shall be thermally isolated from the soil with a minimum of R-10 insulation. The insulation shall be an approved product for its intended use. If a soil gas control system is present below the heated slab-on-grade floor, which results in increased convective flow below the heated slab-on-grade floor, the heated slab-on-grade floor shall be thermally isolated from the sub-slab gravel layer. R-10 heated slab-on-grade floor insulation is required for all compliance paths.

**R402.2.10 Reserved.**

**R402.2.11 Masonry veneer.** Insulation shall not be required on the horizontal portion of the foundation that supports a masonry veneer.

#### NEW SECTION

##### **WAC 51-11R-40230 Section R402.3—Fenestration.**

**R402.3 Fenestration (Prescriptive).** In addition to the requirements of Section R402, fenestration shall comply with Sections R402.3.1 through R402.3.6.

**R402.3.1 *U*-factor.** An area-weighted average of fenestration products shall be permitted to satisfy the *U*-factor requirements.

**R402.3.2 Glazed fenestration SHGC.** An area-weighted average of fenestration products more than 50 percent glazed shall be permitted to satisfy the SHGC requirements.

**R402.3.3 Glazed fenestration exemption.** Up to 15 square feet (1.4 m<sup>2</sup>) of glazed fenestration per dwelling unit shall be permitted to be exempt from *U*-factor and SHGC requirements in Section R402.1.1. This exemption shall not apply to the *U*-factor alternative approach in Section R402.1.3 and the total UA alternative in Section R402.1.4.

**R402.3.4 Opaque door exemption.** One side-hinged opaque door assembly up to 24 square feet (2.22 m<sup>2</sup>) in area is exempted from the *U*-factor requirement in Section R402.1.1. This exemption shall not apply to the *U*-factor

alternative approach in Section R402.1.3 and the total UA alternative in Section R402.1.4.

**R402.3.5 Reserved.**

**R402.3.6 Replacement fenestration.** Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for *U*-factor and SHGC in Table R402.1.1.

#### NEW SECTION

##### **WAC 51-11R-40240 Section R402.4—Air leakage.**

**R402.4 Air leakage (Mandatory).** The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.4.

**R402.4.1 Building thermal envelope.** The *building thermal envelope* shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

**R402.4.1.1 Installation.** The components of the *building thermal envelope* as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. Where required by the *code official*, an *approved* third party shall inspect all components and verify compliance.

**R402.4.1.2 Testing.** The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour in Climate Zones 1 and 2, and 5 air changes per hour in Climate Zones 3 through 8. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the *code official*, testing shall be conducted by an *approved* third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*. Once visual inspection has confirmed the presence of a gasket (see Section 502.4), operable windows and doors manufactured by *small business* shall be permitted to be sealed off at the frame prior to the test.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures;
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures;
3. Interior doors, if installed at the time of the test, shall be open, access hatches to conditioned crawl spaces and conditioned attics shall be open;
4. Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling systems, if installed at the time of the test, shall be turned off; and

6. Supply and return registers, if installed at the time of the test, shall be fully open.

**R402.4.2 Fireplaces.** New wood-burning fireplaces shall have tight-fitting flue dampers and outdoor combustion air.

**R402.4.3 Air leakage of fenestration.** Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m<sup>2</sup>), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m<sup>2</sup>), when tested according to NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and *listed* and *labeled* by the manufacturer.

- EXCEPTIONS:
1. Field-fabricated fenestration products (windows, skylights and doors).
  2. Custom exterior fenestration products manufactured by a small business provided they meet the

applicable provisions of Chapter 24 of the *International Building Code*.

3. Custom exterior windows and doors manufactured by a small business provided they meet the applicable provisions of chapter 24 of the *International Building Code*. Once visual inspection has confirmed the presence of a gasket, operable windows and doors manufactured by *small business* shall be permitted to be sealed off at the frame prior to the test.

**R402.4.4 Recessed lighting.** Recessed luminaires installed in the *building thermal envelope* shall be Type IC-rated and certified under ASTM E283 as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested at a 1.57 psf (75 Pa) pressure differential and shall have a label attached showing compliance with this test method. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

NEW SECTION

**WAC 51-11R-40241 Table R402.4.1.1—Air barrier and insulation installation.**

**TABLE R402.4.1.1  
AIR BARRIER AND INSULATION INSTALLATION**

COMPONENT	CRITERIA <sup>a</sup>
Air barrier and thermal barrier	A continuous air barrier shall be installed in the building envelope. Exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed. Air-permeable insulation shall not be used as a sealing material.
Cavity insulation installation	All cavities in the thermal envelope shall be filled with insulation. The density of the insulation shall be at the manufacturers' product recommendation and said density shall be maintained for all volume of each cavity. Batt type insulation will show no voids or gaps and maintain an even density for the entire cavity. Batt insulation shall be installed in the recommended cavity depth. Where an obstruction in the cavity due to services, blocking, bracing or other obstruction exists, the batt product will be cut to fit the remaining depth of the cavity. Where the batt is cut around obstructions, loose fill insulation shall be placed to fill any surface or concealed voids, and at the manufacturers' specified density. Where faced batt is used, the installation tabs must be stapled to the face of the stud. There shall be no compression to the batt at the edges of the cavity due to inset stapling installation tabs. Insulation that upon installation readily conforms to available space shall be installed filling the entire cavity and within the manufacturers' density recommendation.
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier sealed. Access openings, drop down stair or knee wall doors to unconditioned attic spaces shall be sealed. Batt insulation installed in attic roof assemblies may be compressed at exterior wall lines to allow for required attic ventilation.
Walls	Corners and headers shall be insulated and the junction of the foundation and sill plate shall be sealed. The junction of the top plate and top of exterior walls shall be sealed. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier. Knee walls shall be sealed.
Windows, skylights and doors	The space between window/door jambs and framing and skylights and framing shall be sealed.
Rim joists	Rim joists shall be insulated and include the air barrier.

COMPONENT	CRITERIA <sup>a</sup>
Floors (including above-garage and cantilevered floors)	Insulation shall be installed to maintain permanent contact with underside of subfloor decking. The air barrier shall be installed at any exposed edge of insulation.
Crawl space walls	Where provided in lieu of floor insulation, insulation shall be permanently attached to the crawlspace walls. Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.
Narrow cavities	Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space. Batts in narrow cavities shall be cut to fit and installed to the correct density without any voids or gaps or compression. Narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be air tight, IC rated, and sealed to the drywall.
Plumbing and wiring	Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls. There shall be no voids or gaps or compression where cut to fit. Insulation that on installation readily conforms to available space shall extend behind piping and wiring.
Shower/tub on exterior wall	Exterior walls adjacent to showers and tubs shall be insulated and the air barrier installed separating them from the showers and tubs.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air sealed boxes shall be installed.
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall.
Fireplace	An air barrier shall be installed on fireplace walls. Fireplaces shall have gasketed doors.

<sup>a</sup> In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

**NEW SECTION**

**WAC 51-11R-40250 Section R402.5—Maximum fenestration U-factor and SHGC.**

**R402.5 Maximum fenestration U-factor and SHGC (Mandatory).** The area-weighted average maximum fenestration U-factor permitted using tradeoffs from Section R402.1.4 or R405 shall be 0.48 in Climate Zones 4 and 5 and 0.40 in Climate Zones 6 through 8 for vertical fenestration, and 0.75 in Climate Zones 4 through 8 for skylights. The area-weighted average maximum fenestration SHGC permitted using tradeoffs from Section R405 in Climate Zones 1 through 3 shall be 0.50.

**NEW SECTION**

**WAC 51-11R-40300 Section R403—Systems.**

**NEW SECTION**

**WAC 51-11R-40310 Section R403.1—Controls.**

**R403.1 Controls (Mandatory).** At least one thermostat shall be provided for each separate heating and cooling system.

**R403.1.1 Programmable thermostat.** Where the primary heating system is a forced-air furnace, at least one thermostat per dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. The thermostat shall allow for, at a minimum, a 5-2 programmable schedule (weekdays/weekends) and be capable of providing at least two programmable setback periods per day. This thermostat shall include the capability to set back or temporarily operate the system to maintain *zone* temperatures down to 55°F (13°C) or up to 85°F (29°C). The thermostat shall initially be programmed with a heating temperature set point no higher than 70°F (21°C) and a cooling temperature set point no lower than 78°F (26°C). The thermostat and/or control system shall have an adjustable deadband of not less than 10°F.

**EXCEPTIONS:**

1. Systems controlled by an occupant sensor that is capable of shutting the system off when no occupant is sensed for a period of up to 30 minutes.
2. Systems controlled solely by a manually operated timer capable of operating the system for no more than two hours.

**R403.1.2 Heat pump supplementary heat (Mandatory).** Unitary air cooled heat pumps shall include controls that

minimize supplemental heat usage during start-up, set-up, and defrost conditions. These controls shall anticipate need for heat and use compression heating as the first stage of heat. Controls shall indicate when supplemental heating is being used through visual means (e.g., LED indicators). Heat pumps equipped with supplementary heaters shall be installed with controls that prevent supplemental heater operation above 40°F. At final inspection the auxiliary heat lock out control shall be set to 35°F or less.

#### NEW SECTION

##### **WAC 51-11R-40320 Section R403.2—Ducts.**

**R403.2 Ducts.** Ducts and air handlers shall be in accordance with Sections R403.2.1 through R403.2.3.

**R403.2.1 Insulation (Prescriptive).** Ducts shall be insulated to a minimum of R-8.

EXCEPTION: Ducts or portions thereof located completely inside the *building thermal envelope*. Ducts located in crawl spaces do not qualify for this exception.

**R403.2.2 Sealing (Mandatory).** Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with either the *International Mechanical Code* or *International Residential Code*, as applicable.

EXCEPTIONS:

1. Air-impermeable spray foam products shall be permitted to be applied without additional joint seals.
2. Where a duct connection is made that is partially inaccessible, three screws or rivets shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.
3. Continuously welded and locking-type longitudinal joints and seams in ducts operating at static pressures less than 2 inches of water column (500 Pa) pressure classification shall not require additional closure systems.

Ducts shall be leak tested in accordance with WSU RS-33, using the maximum duct leakage rates specified. Duct tightness shall be verified by either of the following:

1. Postconstruction test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test. Leakage to outdoors shall be less than or equal to 4 cfm (133.3 L/min) per 100 square feet of conditioned floor area.

2. Rough-in test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm (85 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area.

EXCEPTION: The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope. Ducts located in crawl spaces do not qualify for this exception.

**R403.2.2.1 Sealed air handler.** Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design air flow rate when tested in accordance with ASHRAE 193.

**R403.2.3 Building cavities (Mandatory).** Building framing cavities shall not be used as ducts or plenums. Installation of ducts in exterior walls, floors or ceilings shall not displace required envelope insulation.

#### NEW SECTION

##### **WAC 51-11R-40330 Section R403.3—Mechanical system piping insulation.**

**R403.3 Mechanical system piping insulation (Mandatory).** Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-6.

**R403.3.1 Protection of piping insulation.** Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance, and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

#### NEW SECTION

##### **WAC 51-11R-40340 Section R403.4—Service hot water systems.**

**R403.4 Service hot water systems.** Energy conservation measures for service hot water systems shall be in accordance with Sections R403.4.1 and R403.4.2.

**R403.4.1 Circulating hot water systems (Mandatory).** Circulating hot water systems shall be provided with an automatic or readily *accessible* manual switch that can turn off the hot water circulating pump when the system is not in use.

**R403.4.2 Hot water pipe insulation (Prescriptive).** Insulation for hot water pipe shall have a minimum thermal resistance (*R*-value) of R-4.

**403.4.3 Electric water heater insulation.** All electric water heaters in unheated spaces or on concrete floors shall be placed on an incompressible, insulated surface with a minimum thermal resistance of R-10.

#### NEW SECTION

##### **WAC 51-11R-40350 Section R403.5—Mechanical ventilation.**

**R403.5 Mechanical ventilation (Mandatory).** The building shall be provided with ventilation that meets the requirements of the *International Residential Code* or *International Mechanical Code*, as applicable, or with other approved means of ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

**R403.5.1 Whole-house mechanical ventilation system fan efficacy.** Mechanical ventilation system fans shall meet the efficacy requirements of Table R403.5.1.

EXCEPTION: Where mechanical ventilation fans are integral to tested and listed HVAC equipment, they shall be powered by an electronically commutated motor.

NEW SECTION

**WAC 51-11R-40351 Table R403.5.1—Mechanical ventilation system fan efficacy.**

**TABLE R403.5.1  
MECHANICAL VENTILATION SYSTEM FAN EFFICACY**

Fan Location	Air Flow Rate Minimum (cfm)	Minimum Efficacy (cfm/watt)	Air Flow Rate Maximum (cfm)
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	< 90
Bathroom, utility room	90	2.8 cfm/watt	Any

For SI: 1 cfm = 28.3 L/min.

NEW SECTION

**WAC 51-11R-40360 Section R403.6—Equipment sizing.**

**R403.6 Equipment sizing (Mandatory).** Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other *approved* heating and cooling calculation methodologies.

NEW SECTION

**WAC 51-11R-40370 Section R403.7—Systems serving multiple dwelling units.**

**R403.7 Systems serving multiple dwelling units (Mandatory).** Systems serving multiple dwelling units shall comply with Sections C403 and C404 of the IECC—Commercial Provisions in lieu of Section R403.

NEW SECTION

**WAC 51-11R-40380 Section R403.8—Snow melt system controls.**

**R403.8 Snow melt system controls (Mandatory).** Snow and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F, and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F.

NEW SECTION

**WAC 51-11R-40390 Section R403.9—Pools and in-ground spas.**

**R403.9 Pools and in-ground permanently installed spas (Mandatory).** Pools and in-ground permanently installed spas shall comply with Sections R403.9.1 through R403.9.5.

**R403.9.1 Heaters.** All heaters shall be equipped with a readily *accessible* on-off switch that is mounted outside of the heater to allow shutting off the heater without adjusting the thermostat setting. Gas-fired heaters shall not be equipped with constant burning pilot lights.

**R403.9.2 Time switches.** Time switches or other control method that can automatically turn off and on heaters and pumps according to a preset schedule shall be installed on all heaters and pumps. Heaters, pumps and motors that have built in timers shall be deemed in compliance with this requirement.

EXCEPTIONS: 1. Where public health standards require 24-hour pump operation.  
2. Where pumps are required to operate solar- and waste-heat-recovery pool heating systems.

**R403.9.3 Covers.** Heated pools and in-ground permanently installed spas shall be provided with a vapor-retardant cover.

EXCEPTION: Pools deriving over 70 percent of the energy for heating from site-recovered energy, such as a heat pump or solar energy source computed over an operating season.

**R403.9.4 Residential pool pumps.** Pool pump motors may not be split-phase or capacitor start-induction run type.

**R403.9.4.1 Two-speed capability.**

1. Pump motors: Pool pump motors with a capacity of 1 hp or more shall have the capability of operating at two or more speeds with low speed having a rotation rate that is no more than one-half of the motor's maximum rotation rate.

2. Pump controls: Pool pump motor controls shall have the capability of operating the pool pump with at least two speeds. The default circulation speed shall be the lowest speed, with a high speed override capability being for a temporary period not to exceed one normal cycle.

**R403.9.4.2 Pump operation.** Circulating water systems shall be controlled so that the circulation pump(s) can be conveniently turned off, automatically or manually, when the water system is not in operation.

NEW SECTION

**WAC 51-11R-40400 Section R404—Electrical power and lighting systems.**

NEW SECTION

**WAC 51-11R-40410 Section R404.1—Lighting equipment.**

**R404.1 Lighting equipment (Mandatory).** A minimum of 75 percent of permanently installed lamps in lighting fixtures shall be high-efficacy lamps.

**R404.1.1 Lighting equipment (Mandatory).** Fuel gas lighting systems shall not have continuously burning pilot lights.

NEW SECTION

**WAC 51-11R-40500 Section R405—Simulated performance alternative (Performance).**

NEW SECTION

**WAC 51-11R-40510 Section R405.1—Scope.**

**R405.1 Scope.** This section establishes criteria for compliance using simulated energy performance analysis. Such analysis shall include heating, cooling, and service water heating energy only.

NEW SECTION

**WAC 51-11R-40520 Section R405.2—Mandatory requirements.**

**R405.2 Mandatory requirements.** Compliance with this section requires that the mandatory provisions identified in Section R401.2 be met. All supply and return ducts not completely inside the *building thermal envelope* shall be insulated to a minimum of R-8.

NEW SECTION

**WAC 51-11R-40530 Section R405.3—Performance-based compliance.**

**R405.3 Performance-based compliance.** Compliance based on simulated energy performance requires that a proposed residence (*proposed design*) be shown to have an annual energy consumption based on site energy expressed in Btu and Btu per square foot of *conditioned floor area* as follows:

1. For structures less than 1,500 square feet of conditioned floor area, the annual energy consumption shall be less than or equal to 97 percent of the annual energy consumption of the *standard reference design*.
2. For structures 1,500 to 5,000 square feet of conditioned floor area, the annual energy consumption shall be no more than 89 percent of the *standard reference design*.
3. For structures over 5,000 square feet of conditioned floor area, the annual energy consumption shall be no more than 83 percent of the *standard reference design*.

NEW SECTION

**WAC 51-11R-40540 Section R405.4—Documentation.**

**R405.4 Documentation.** Documentation of the software used for the performance design and the parameters for the building shall be in accordance with Sections R405.4.1 through R405.4.3.

**R405.4.1 Compliance software tools.** Documentation verifying that the methods and accuracy of the compliance soft-

ware tools conform to the provisions of this section shall be provided to the *code official*.

**R405.4.2 Compliance report.** Compliance software tools shall generate a report that documents that the *proposed design* complies with Section R405.3. The compliance documentation shall include the following information:

1. Address or other identification of the residence;
2. An inspection checklist documenting the building component characteristics of the *proposed design* as listed in Table R405.5.2(1). The inspection checklist shall show results for both the *standard reference design* and the *proposed design*, and shall document all inputs entered by the user necessary to reproduce the results;
3. Name of individual completing the compliance report; and
4. Name and version of the compliance software tool.

**EXCEPTION:** Multiple orientations. When an otherwise identical building model is offered in multiple orientations, compliance for any orientation shall be permitted by documenting that the building meets the performance requirements in each of the four cardinal (north, east, south and west) orientations.

**R405.4.3 Additional documentation.** The *code official* shall be permitted to require the following documents:

1. Documentation of the building component characteristics of the *standard reference design*.
2. A certification signed by the builder providing the building component characteristics of the *proposed design* as given in Table R405.5.2(1).
3. Documentation of the actual values used in the software calculations for the *proposed design*.

NEW SECTION

**WAC 51-11R-40550 Section R405.5—Calculation procedure.**

**R405.5 Calculation procedure.** Calculations of the performance design shall be in accordance with Sections R405.5.1 and R405.5.2.

**R405.5.1 General.** Except as specified by this section, the *standard reference design* and *proposed design* shall be configured and analyzed using identical methods and techniques.

**R405.5.2 Residence specifications.** The *standard reference design* and *proposed design* shall be configured and analyzed as specified by Table R405.5.2(1). Table R405.5.2(1) shall include by reference all notes contained in Table R402.1.1.



NEW SECTION

**WAC 51-11R-40551 Table R405.5.2(1)—Specifications for the standard reference and proposed designs.**

**TABLE R405.5.2(1)  
SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS**

BUILDING COMPONENT	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
Above-grade walls	Type: Mass wall if proposed wall is mass; otherwise wood frame. Gross area: Same as proposed U-factor: From Table R402.1.3 Solar absorptance = 0.75 Remittance = 0.90	As proposed As proposed As proposed As proposed As proposed
Basement and crawl space walls	Type: Same as proposed Gross area: Same as proposed U-factor: From Table R402.1.3, with insulation layer on interior side of walls.	As proposed As proposed As proposed
Above-grade floors	Type: Wood frame Gross area: Same as proposed U-factor: From Table R402.1.3	As proposed As proposed As proposed
Ceilings	Type: Wood frame Gross area: Same as proposed U-factor: From Table R402.1.3	As proposed As proposed As proposed
Roofs	Type: Composition shingle on wood sheathing Gross area: Same as proposed Solar absorptance = 0.75 Emittance = 0.90	As proposed As proposed As proposed As proposed
Attics	Type: Vented with aperture = 1 ft <sup>2</sup> per 300 ft <sup>2</sup> ceiling area	As proposed
Foundations	Type: Same as proposed foundation wall area above and below-grade and soil characteristics: Same as proposed.	As proposed
Doors	Area: 40 ft <sup>2</sup> Orientation: North U-factor: Same as fenestration from Table R402.1.3.	As proposed As proposed As proposed
Glazing <sup>a</sup>	Total area <sup>b</sup> = (a) The proposed glazing area; where proposed glazing area is less than 15% of the conditioned floor area. (b) 15% of the conditioned floor area; where the proposed glazing area is 15% or more of the conditioned floor area. Orientation: Equally distributed to four cardinal compass orientations (N, E, S & W). U-factor: From Table R402.1.3 SHGC: From Table R402.1.1 except that for climates with no requirement (NR) SHGC = 0.40 shall be used. Interior shade fraction: 0.92 - (0.21 × SHGC for the standard reference design) External shading: None	As proposed  As proposed  As proposed As proposed 0.92 - (0.21 × SHGC as proposed) As proposed
Skylights	None	As proposed

**TABLE R405.5.2(1)—Continued  
SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS**

BUILDING COMPONENT	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
Air exchange rate	Air leakage rate of 5 air changes per hour in Climate Zones 1 and 2, and 5 air changes per hour in Climate Zones 3 through 8 at a pressure of 0.2 inches w.g. (50 Pa). The mechanical ventilation rate shall be in addition to the air leakage rate and the same as in the proposed design, but no greater than $0.01 \times CFA + 7.5 \times (N_{br} + 1)$ where: CFA = conditioned floor area N <sub>br</sub> = number of bedrooms - Energy recovery shall not be assumed for mechanical ventilation.	For residences that are not tested, the same air leakage rate as the standard reference design. For tested residences, the measured air exchange rate <sup>c</sup> . The mechanical ventilation rate <sup>d</sup> shall be in addition to the air leakage rate and shall be as proposed.
Mechanical ventilation	None, except where mechanical ventilation is specified by the proposed design, in which case: Annual vent fan energy use: kWh/yr = $.03942 \times CFA + 29.565 \times (N_{br} + 1)$ where: CFA = conditioned floor area N <sub>br</sub> = number of bedrooms	As proposed

BUILDING COMPONENT	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
Internal gains	$IGain = 17,900 + 23.8 \times CFA + 4104 \times N_{br}$ (Btu/day per dwelling unit)	Same as standard reference design
Internal mass	An internal mass for furniture and contents of 8 pounds per square foot of floor area.	Same as standard reference design, plus any additional mass specifically designed as a thermal storage element <sup>e</sup> but not integral to the building envelope or structure.
Structural mass	For masonry floor slabs, 80% of floor area covered by R-2 carpet and pad, and 20% of floor directly exposed to room air.	As proposed
	For masonry basement walls, as proposed, but with insulation required by Table R402.1.3 located on the interior side of the walls	As proposed
	For other walls, for ceilings, floors, and interior walls, wood frame construction	As proposed
Heating systems <sup>f, g</sup>	For all system types other than electric heating without a heat pump, the same system type as with the prevailing federal minimum efficiency. Where the proposed design utilizes electric heating without a heat pump the standard reference design shall be an air source heat pump meeting the requirements of Section R403 of the IECC—Commercial Provisions. Capacity: Sized in accordance with Section R403.6	As proposed
Cooling systems <sup>f, h</sup>	As proposed Capacity: Sized in accordance with Section R403.6.	As proposed
Service water heating <sup>f, g, h, i</sup>	As proposed Use: Same as proposed design	As proposed $gal/day = 30 + (10 \times N_{br})$
Thermal distribution systems		Thermal distribution system efficiency shall be as tested or as specified in Table R405.5.2(2) if not tested. Duct insulation shall be as proposed.
Thermostat	Type: Manual, cooling temperature setpoint = 75°F; Heating temperature setpoint = 72°F	Same as standard reference

For SI: 1 square foot = 0.93 m<sup>2</sup>, 1 British thermal unit = 1055 J, 1 pound per square foot = 4.88 kg/m<sup>2</sup>, 1 gallon (U.S.) = 3.785 L, °C = (°F-3)/1.8, 1 degree = 0.79 rad

<sup>a</sup> Glazing shall be defined as sunlight-transmitting fenestration, including the area of sash, curbing or other framing elements, that enclose conditioned space. Glazing includes the area of sunlight-transmitting fenestration assemblies in walls bounding conditioned basements. For doors where the sunlight-transmitting opening is less than 50 percent of the door area, the glazing area is the sunlight-transmitting opening area. For all other doors, the glazing area is the rough frame opening area for the door including the door and the frame.

<sup>b</sup> For residences with conditioned basements, R-2 and R-4 residences and townhouses, the following formula shall be used to determine glazing area:

$$AF = A_s \times FA \times F$$

where:

- $AF$  = Total glazing area.
- $A_s$  = Standard reference design total glazing area.
- $FA$  = (Above-grade thermal boundary gross wall area)/(above-grade boundary wall area + 0.5 x below-grade boundary wall area).
- $F$  = (Above-grade thermal boundary wall area)/(above-grade thermal boundary wall area + common wall area) or 0.56, whichever is greater.

and where:

Thermal boundary wall is any wall that separates conditioned space from unconditioned space or ambient conditions.

Above-grade thermal boundary wall is any thermal boundary wall component not in contact with soil.

Below-grade boundary wall is any thermal boundary wall in soil contact.

Common wall area is the area of walls shared with an adjoining dwelling unit.

$L$  and  $CFA$  are in the same units.

<sup>c</sup> Where required by the *code official*, testing shall be conducted by an *approved* party. Hourly calculations as specified in the ASHRAE *Handbook of Fundamentals*, or the equivalent, shall be used to determine the energy loads resulting from infiltration.

<sup>d</sup> The combined air exchange rate for infiltration and mechanical ventilation shall be determined in accordance with Equation 43 of 2001 ASHRAE *Handbook of Fundamentals*, page 26.24 and the "Whole-house Ventilation" provisions of 2001 ASHRAE *Handbook of Fundamentals*, page 26.19 for intermittent mechanical ventilation.

<sup>e</sup> Thermal storage element shall mean a component not part of the floors, walls or ceilings that is part of a passive solar system, and that provides thermal storage such as enclosed water columns, rock beds, or phase-change containers. A thermal storage element must be in the same room as fenestration that faces within 15 degrees (0.26 rad) of true south, or must be connected to such a room with pipes or ducts that allow the element to be actively charged.

<sup>f</sup> For a proposed design with multiple heating, cooling or water heating systems using different fuel types, the applicable standard reference design system capacities and fuel types shall be weighted in accordance with their respective loads as calculated by accepted engineering practice for each equipment and fuel type present.

<sup>g</sup> For a proposed design without a proposed heating system, a heating system with the prevailing federal minimum efficiency shall be assumed for both the standard reference design and proposed design.

<sup>h</sup> For a proposed design home without a proposed cooling system, an electric air conditioner with the prevailing federal minimum efficiency shall be assumed for both the standard reference design and the proposed design.

<sup>i</sup> For a proposed design with a nonstorage-type water heater, a 40-gallon storage-type water heater with the prevailing federal minimum energy factor for the same fuel as the predominant heating fuel type shall be assumed. For the case of a proposed design

without a proposed water heater, a 40-gallon storage-type water heater with the prevailing federal minimum efficiency for the same fuel as the predominant heating fuel type shall be assumed for both the proposed design and standard reference design.

**NEW SECTION**

**WAC 51-11R-40552 Table R405.5.2(2)—Default distribution system efficiencies for proposed designs.**

**TABLE R405.5.2(2)  
DEFAULT DISTRIBUTION SYSTEM EFFICIENCIES FOR PROPOSED DESIGNS<sup>a</sup>**

DISTRIBUTION SYSTEM CONFIGURATION AND CONDITION	FORCED AIR SYSTEMS	HYDRONIC SYSTEMS <sup>b</sup>
Distribution system components located in unconditioned space	-	0.95
Untested distribution systems entirely located in conditioned space <sup>c</sup>	0.88	1
"Ductless" systems <sup>d</sup>	1	-

For SI: 1 cubic foot per minute = 0.47 L/s, 1 square foot = 0.093m<sup>2</sup>, 1 pound per square inch = 6895 Pa, 1 inch water gauge = 1250 Pa.

<sup>a</sup> Default values given by this table are for untested distribution systems, which must still meet minimum requirements for duct system insulation.

<sup>b</sup> Hydronic systems shall mean those systems that distribute heating and cooling energy directly to individual spaces using liquids pumped through closed-loop piping and that do not depend on ducted, forced airflow to maintain space temperatures.

<sup>c</sup> Entire system in conditioned space shall mean that no component of the distribution system, including the air-handler unit, is located outside of the conditioned space.

<sup>d</sup> Ductless systems shall be allowed to have forced airflow across a coil but shall not have any ducted airflow external to the manufacturer's air-handler enclosure.

**NEW SECTION**

**WAC 51-11R-40560 Section R405.6—Calculation software tools.**

**R405.6 Calculation software tools.** Calculation software, where used, shall be in accordance with Sections R405.6.1 through R405.6.3.

**NEW SECTION**

**WAC 51-11R-40620 Section R406.2—Additional energy efficiency requirements.**

**R406.2 Additional energy efficiency requirements (Mandatory).** Each dwelling unit in one- and two-family dwellings and townhouses, as defined in Section 101.2 of the International Residential Code shall comply with sufficient options from Table R406.2 so as to achieve the following minimum number of credits:

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Small Dwelling Unit:<br/>Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building that are less than 750 square feet of heated floor area.</li> <li>2. Medium Dwelling Unit:<br/>All dwelling units that are not included in #1 or #3.</li> <li>3. Large Dwelling Unit:<br/>Dwelling units exceeding 5000 square feet of conditioned floor area.</li> </ol> | <p>0.5 points</p> <p>1.5 points</p> <p>2.5 points</p> |
|--|---|

**R405.6.1 Minimum capabilities.** Calculation procedures used to comply with this section shall be software tools capable of calculating the annual energy consumption of all building elements that differ between the *standard reference design* and the *proposed design* and shall include the following capabilities:

1. Calculation of whole-building (as a single *zone*) sizing for the heating and cooling equipment in the *standard reference design* residence in accordance with Section R403.6.
2. Calculations that account for the effects of indoor and outdoor temperatures and part-load ratios on the performance of heating, ventilating and air-conditioning equipment based on climate and equipment sizing.
3. Printed *code official* inspection checklist listing each of the *proposed design* component characteristics from Table R405.5.2(1) determined by the analysis to provide compliance, along with their respective performance ratings (e.g., *R*-value, *U*-factor, SHGC, HSPF, AFUE, SEER, EF, etc.).

**R405.6.2 Specific approval.** Performance analysis tools meeting the applicable sections of Section R405 shall be permitted to be *approved*. Tools are permitted to be *approved* based on meeting a specified threshold for a jurisdiction. The *code official* shall be permitted to approve tools for a specified application or limited scope.

**R405.6.3 Input values.** When calculations require input values not specified by Sections R402, R403, R404 and R405, those input values shall be taken from an approved source.

**NEW SECTION**

**WAC 51-11R-40600 Section R406—Additional energy efficiency requirements.**

**NEW SECTION**

**WAC 51-11R-40610 Section R406.1—Scope.**

**R406.1 Scope.** This section establishes options for additional criteria to be met for one- and two-family dwellings and townhouses, as defined in Section 101.2 of the International Residential Code to demonstrate compliance with this code.

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project.

NEW SECTION

**WAC 51-11R-40621 Table R406.2—Energy credits.**

**TABLE 406.2  
ENERGY CREDITS (DEBITS)**

OPTION	DESCRIPTION	CREDIT(S)
1a	<p>EFFICIENT BUILDING ENVELOPE 1a: Prescriptive compliance is based on Table R402.1.1 with the following modifications: Fenestration U = 0.28 Floor R-38 Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab <b>or</b> Compliance based on Section R402.1.4: Reduce the Total UA by 5%.</p>	0.5
1b	<p>EFFICIENT BUILDING ENVELOPE 1b: Prescriptive compliance is based on Table R402.1.1 with the following modifications: Fenestration U = 0.25 Wall R-21 plus R-4 Floor R-38 Basement wall R-21 int plus R-5 ci Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab <b>or</b> Compliance based on Section R402.1.4: Reduce the Total UA by 15%.</p>	1.0
1c	<p>EFFICIENT BUILDING ENVELOPE 1c: Prescriptive compliance is based on Table R402.1.1 with the following modifications: Fenestration U = 0.22 Ceiling and single-rafter or joist-vaulted R-49 advanced Wood frame wall R-21 int plus R-12 ci Floor R-38 Basement wall R-21 int plus R-12 ci Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab <b>or</b> Compliance based on Section R402.1.4: Reduce the Total UA by 30%.</p>	2.0
2a	<p>AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2a: Compliance based on R402.4.1.2: Reduce the tested air leakage to 4.0 air changes per hour maximum <b>and</b> All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with a high efficiency fan (maximum 0.35 watts/cfm), not interlocked with the furnace fan ventilation systems using a furnace including an ECM motor are allowed, provided that they are controlled to operate at low speed in ventilation only mode. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify.</p>	0.5
2b	<p>AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2b: Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 2.0 air changes per hour maximum <b>and</b> All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.70. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.</p>	1.0
2c	<p>AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2c: Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 1.5 air changes per hour maximum <b>and</b> All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.85. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.</p>	1.5

OPTION	DESCRIPTION	CREDIT(S)
3a	<p>HIGH EFFICIENCY HVAC EQUIPMENT 3a:                      Gas, propane or oil-fired furnace with minimum AFUE of 95%                      To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	0.5
3b	<p>HIGH EFFICIENCY HVAC EQUIPMENT 3b:                      Air-source heat pump with minimum HSPF of 8.5                      To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	1.0
3c	<p>Closed-loop ground source heat pump; with a minimum COP of 3.3  <b>or</b>                      Open loop water source heat pump with a maximum pumping hydraulic head of 150 feet and minimum COP of 3.6                      To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	2.0
3d	<p>HIGH EFFICIENCY HVAC EQUIPMENT 3d:                      DUCTLESS SPLIT SYSTEM HEAT PUMPS, ZONAL CONTROL:                      In home where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to at least one zone of the housing unit.                      To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	1.0
4	<p>HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM:<sup>1</sup>                      All heating and cooling system components installed inside the conditioned space. All combustion equipment shall be direct vent or sealed combustion.                      Locating system components in conditioned crawl spaces is not permitted under this option.                      Electric resistance heat is not permitted under this option.                      Direct combustion heating equipment with AFUE less than 80% is not permitted under this option.                      To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and shall show the location of the heating and cooling equipment and all the ductwork.</p>	1.0
5a	<p>EFFICIENT WATER HEATING 5a:                      Water heating system shall include one of the following:                      Gas, propane or oil water heater with a minimum EF of 0.62  <b>or</b>                      Electric water heater with a minimum EF of 0.93.  <b>and for both cases</b>                      All showerhead and kitchen sink faucets installed in the house shall be rated at 1.75 GPM or less. All other lavatory faucets shall be rated at 1.0 GPM or less.<sup>2</sup>                      To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency and shall specify the maximum flow rates for all showerheads, kitchen sink faucets, and other lavatory faucets.</p>	0.5
5b	<p>EFFICIENT WATER HEATING 5b:                      Water heating system shall include one of the following:                      Gas, propane or oil water heater with a minimum EF of 0.82  <b>or</b>                      Solar water heating supplementing a minimum standard water heater. Solar water heating will provide a rated minimum savings of 85 therms or 2000 kWh based on the Solar Rating and Certification Corporation (SRCC) Annual Performance of OG-300 Certified Solar Water Heating Systems  <b>or</b>                      Electric heat pump water heater with a minimum EF of 2.0 and meeting the standards of NEEA's Northern Climate Specifications for Heat Pump Water Heaters  <b>or</b>                      Water heater heated by ground source heat pump meeting the requirements of Option 3c.                      To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy savings.</p>	1.5

OPTION	DESCRIPTION	CREDIT(S)
6	<p>RENEWABLE ELECTRIC ENERGY:</p> <p>For each 1200 kWh of electrical generation provided annually by on-site wind or solar equipment a 0.5 credit shall be allowed, up to 3 credits. Generation shall be calculated as follows:</p> <p>For solar electric systems, the design shall be demonstrated to meet this requirement using the National Renewable Energy Laboratory calculator PVWATTS. Documentation noting solar access shall be included on the plans.</p> <p>For wind generation projects designs shall document annual power generation based on the following factors:</p> <p>The wind turbine power curve; average annual wind speed at the site; frequency distribution of the wind speed at the site and height of the tower.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall show the photovoltaic or wind turbine equipment type, provide documentation of solar and wind access, and include a calculation of the minimum annual energy power production.</p>	0.5

Footnotes: <sup>1</sup> **Interior Duct Placement.** Ducts included as Option 4 of Table R406.2 shall be placed wholly within the heated envelope of the housing unit. The placement shall be inspected and certified to receive the credits associated with this option.

EXCEPTION: Ducts complying with this section may have up to 5% of the total linear feet of ducts located in the exterior cavities or buffer spaces of the dwelling. If this exception is used the ducts will be tested to the following standards:

Post-construction test: Leakage to outdoors shall be less than or equal to 1 CFM per 100 ft<sup>2</sup> of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.

<sup>2</sup> **Plumbing Fixtures Flow Ratings.** Low flow plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following requirements:

a Residential bathroom lavatory sink faucets: Maximum flow rate - 3.8 L/min (1.0 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1.

b Residential kitchen faucets: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1.

c Residential showerheads: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1.

NEW SECTION

**WAC 51-11R-50000 Chapter 5—Referenced standards.** This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section R106.

<b>AAMA</b>	American Architectural Manufacturers Association 1827 Walden Office Square Suite 550 Schaumburg, IL 60173-4268	
Standard reference number	Title	Referenced in code section number
AAMA/WDMA/CSA 101/1.S.2/A C440-11	North American Fenestration Standard/Specifications for Windows, Doors and Unit Skylights . . . . .	R402.4.3
<b>ACCA</b>	Air Conditioning Contractors of America 2800 Shirlington Road, Suite 300 Arlington, VA 22206	
Standard reference number	Title	Referenced in code section number
Manual J-11	Residential Load Calculation Eighth Edition	R403.6
Manual S-10	Residential Equipment . . . . .	R403.6
<b>ASHRAE</b>	American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle, N.E. Atlanta, GA 30329-2305	
Standard reference number	Title	Referenced in code section number
ASHRAE-2009	ASHRAE Handbook of Fundamentals R402.1.4, Table R405.5.2(1)	
ASHRAE 193-2010	Method of Test for Determining the Airtightness of HVAC Equipment . . . . .	R403.2.2.1
<b>ASTM</b>	ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2859	
Standard reference number	Title	Referenced in code section number

E 283-04	Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen	R402.4.4
<b>CSA</b>	Canadian Standards Association 5060 Spectrum Way Mississauga, Ontario, Canada L4W 5N6	
Standard reference number AAMA/WDMA/CSA 101/I.S.2/A440-11	Title North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights	Referenced in code section number R402.4.3
<b>ICC</b>	International Code Council, Inc. 500 New Jersey Avenue, N.W. 6th Floor Washington, DC 20001	
Standard reference number	Title	Referenced in code section number
IBC-12	International Building Code	R201.3, R303.2, R402.2.10
ICC 400-12	Standard on the Design and Construction of Log Structures	Table R402.4.1.1
IFC-12	International Fire Code	R201.3
IFGC-12	International Fuel Gas Code	R201.3
IMC-12	International Mechanical Code	R201.3, R403.2.2, R403.5
IPC-12	International Plumbing Code	R201.3
IRC-12	International Residential Code	R201.3, R303.2, R402.2.10, R403.2.2, R403.5
<b>NEEA</b>	Northwest Energy Efficiency Alliance 421 S.W. 6th Ave., Suite 600 Portland, OR 97204	
Standard reference number	Title	Referenced in code section number
NEEA-2011	Northern Climate Specification for Heat Pump Water Heaters, Vers. 4.0	Table R406.2
<b>NFRC</b>	National Fenestration Rating Council, Inc. 6305 Ivy Lane, Suite 140 Greenbelt, MD 20770	
Standard reference number	Title	Referenced in code section number
100-2009	Procedure for Determining Fenestration Products U-factors - Second Edition	R303.1.3
200-2009	Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence - Second Edition	R303.1.3
400-2009	Procedure for Determining Fenestration Product Air Leakage - Second Edition	R402.4.3
<b>US-FTC</b>	United States-Federal Trade Commission 600 Pennsylvania Avenue N.W. Washington, DC 20580	
Standard reference number C.F.R. Title 16 (May 31, 2005)	Title R-value	Referenced in code section number Rule R303.1.4
<b>WDMA</b>	Window and Door Manufacturers Association 1400 East Touhy Avenue, Suite 470 Des Plaines, IL 60018	
Standard reference number AAMA/WDMA/CSA 101/I.S.2/A440-11	Title North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights	Referenced in code section number R402.4.3
<b>WSU</b>	Washington State University Energy Extension Program 905 Plum Street S.E., Bldg 3 P.O. Box 43165 Olympia, WA 98506-3166	
Standard reference number	Title	Referenced in code section number

WSU RS 33	Duct Testing Standard for New and Existing Construction Publication No. WSUEEP12-016	R403.2.2
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**NEW SECTION**

**WAC 51-11R-60000 Appendix C—Exterior design conditions.** As required by R302.2, the heating or cooling outdoor design temperatures shall be selected from Table C-1.

**NEW SECTION**

**WAC 51-11R-60100 Table C-1—Outdoor design temperatures for Washington.**

**TABLE C-1  
OUTDOOR DESIGN TEMPERATURES**

Location	Outdoor Design Temp Heating (°F)	Outdoor Design Temp Cooling (°F)
Aberdeen 20NNE	25	83
Anacortes	24	72
Anatone	-4	89
Auburn	25	84
Battleground	19	91
Bellevue	24	83
Bellingham 2N	19	78
Blaine	17	73
Bremerton	29	83
Burlington	19	77
Chehalis	21	87
Chelan	10	89
Cheney	4	94
Chesaw	-11	81
Clarkston	10	94
Cle Elum	1	91
Colfax 1NW	2	94
Colville AP	-2	92
Concrete	19	83
Connell 4NNW	6	100
Cougar 5E	25	93
Dallesport AP	14	99
Darrington RS	13	85
Davenport	5	92
Edmonds	24	82
Ellensburg AP	2	90
Elma	24	88
Ephrata AP	7	97
Everett Paine AFB	21	79
Forks 1E	23	81
Glacier RS	13	82
Glenoma (Kosmos)	18	89

Location	Outdoor Design Temp Heating (°F)	Outdoor Design Temp Cooling (°F)
Goldendale	7	94
Grays River Hatchery	24	86
Greenwater	1.4	84
Grotto	21	84
Hoquiam AP	26	79
Inchelium 2NW	0	92
John Day Dam	19	100
Kent	21	85
Kirkland	17	83
La Grande	23	88
Leavenworth	-3	93
Little Goose Dam	22	101
Long Beach 3NNE	25	77
Longview	24	87
Lower Granite Dam	14	98
Lower Monument Dam	18	103
Marysville	23	79
Metaline Falls	-1	89
Methow 2W	1	89
Nespelem 2S	-4	93
Newhalem	19	89
Newport	-5	92
Northport	2	92
Oak Harbor	16	74
Odessa	7	100
Olga 2SE	24	71
Olympia AP	17	85
Omak 2NW	3	90
Oroville	5	93
Othello	9	98
Packwood	16	90
Plain	-3	89
Pleasant View	16	98
Pomeroy	3	95
Port Angeles	28	75
Port Townsend	25	76
Prosser	12	97
Puyallup	19	86
Quilcene 2SW	23	83
Quinalt RS	25	84
Rainier, Longmire	15	85



Location	Outdoor Design Temp Heating (°F)	Outdoor Design Temp Cooling (°F)
Paradise RS	8	71
Raymond	28	81
Redmond	17	83
Republic	-9	87
Richland	11	101
Ritzville	6	99
Satus Pass	10	90
Seattle: SeaTac AP	24	83
Sedro Woolley 1E	19	78
Sequim	23	78
Shelton	23	85
Smyrna	8	102
Snohomish	21	81
Snoqualmie Pass	6	80
Spokane AP	4	92
Spokane CO	10	96
Stampede Pass	7	76
Stehekin 3NW	12	85
Stevens Pass	6	77
Tacoma CO	29	82
Tatoosh Island	31	63
Toledo AP	17	84
Vancouver	22	88
Vashon Island	28	78
Walla Walla AP	6	96
Waterville	1	88
Wellpinit	1	93
Wenatchee CO	10	92
Whidbey Island	11	71
Willapa Harbor	26	81
Wilson Creek	3	96
Winthrop IWSW	-12	91
Yakima AP	11	94

**ABBREVIATIONS:**

- AFB Air Force Base
- AP Airport
- CO City Office
- RS Ranger Station
- Typical: "4(miles)NE"

**REPEALER**

The following chapter of the Washington Administrative Code is repealed:

WAC 51-11-0100 Chapter 1—Administration and enforcement.

WAC 51-11-0101	Section 101—Scope and general requirements.
WAC 51-11-0102	Materials and equipment.
WAC 51-11-0103	Alternate materials—Method of construction, design or insulating systems.
WAC 51-11-0104	Plans and specifications.
WAC 51-11-0105	Inspections and enforcement.
WAC 51-11-0106	Violations.
WAC 51-11-0107	Liability.
WAC 51-11-0108	Conflicts with other codes.
WAC 51-11-0109	Severability.
WAC 51-11-0200	Chapter 2—Definitions.
WAC 51-11-0201	Scope.
WAC 51-11-0300	Chapter 3—Design conditions.
WAC 51-11-0301	Design criteria.
WAC 51-11-0302	Thermal design parameters.
WAC 51-11-0303	Mechanical ventilation.
WAC 51-11-0400	Chapter 4—Building design by systems analysis.
WAC 51-11-0401	Scope.
WAC 51-11-0402	Systems analysis.
WAC 51-11-0500	Chapter 5—Building design by component performance approach.
WAC 51-11-0501	Scope.
WAC 51-11-0502	Building envelope requirements.
WAC 51-11-0503	Mechanical systems.
WAC 51-11-0504	Domestic water systems.
WAC 51-11-0505	Lighting.
WAC 51-11-0525	Equation 1—Single-family residential.
WAC 51-11-0526	Equation 2—All occupancies.
WAC 51-11-0527	Equation 3—Single-family residential.
WAC 51-11-0528	Equation 4—Reserved.
WAC 51-11-0529	Equation 5—Reserved.
WAC 51-11-0530	Table 5-1.
WAC 51-11-0531	Table 5-2—Reserved.
WAC 51-11-0532	Table 5-3—Reserved.

WAC 51-11-0533	Table 5-4—Reserved.	WAC 51-11-1009	Section 1009 Mass.
WAC 51-11-0534	Table 5-5—Reserved.	WAC 51-11-1100	Title.
WAC 51-11-0535	Table 5-6—Reserved.	WAC 51-11-1110	Purpose and intent.
WAC 51-11-0536	Table 5-7—Reserved.	WAC 51-11-1120	Scope.
WAC 51-11-0537	Table 5-8—Reserved.	WAC 51-11-1130	Application to existing buildings.
WAC 51-11-0538	Table 5-9—Reserved.	WAC 51-11-1131	Additions to existing buildings.
WAC 51-11-0539	Table 5-10—Reserved.	WAC 51-11-1132	Alterations and repairs.
WAC 51-11-0540	Table 5-11.	WAC 51-11-1133	Change of occupancy or use.
WAC 51-11-0541	Table 5-12.	WAC 51-11-1134	Historic buildings.
WAC 51-11-0542	Table 5-13—Reserved.	WAC 51-11-1135	Commissioning.
WAC 51-11-0600	Chapter 6 building design by prescriptive requirements approach.	WAC 51-11-1140	Enforcement.
WAC 51-11-0601	Scope.	WAC 51-11-1141	Plans and specifications.
WAC 51-11-0602	Building envelope requirements for single-family residential.	WAC 51-11-1142	Materials and equipment.
WAC 51-11-0603	Mechanical systems for single-family residential.	WAC 51-11-1143	Inspections.
WAC 51-11-0604	Domestic water systems.	WAC 51-11-1144	Violations.
WAC 51-11-0605	Lighting.	WAC 51-11-1150	Conflicts with other codes.
WAC 51-11-0625	Table 6-1.	WAC 51-11-1160	Severability and liability.
WAC 51-11-0700	Chapter 7—Standards.	WAC 51-11-1200	Reserved.
WAC 51-11-0701	Scope.	WAC 51-11-1301	Scope.
WAC 51-11-0800	Section 0800—Suggested software for chapter 4 systems analysis approach.	WAC 51-11-1302	Space heat type.
WAC 51-11-0900	Chapter 0900—Additional residential energy efficiency requirements.	WAC 51-11-1303	Climate zones.
WAC 51-11-1000	Chapter 10.	WAC 51-11-1310	General requirements.
WAC 51-11-1001	Section 1001 General.	WAC 51-11-1311	Insulation.
WAC 51-11-1002	Section 1002: Below grade walls and slabs.	WAC 51-11-1312	Glazing and doors.
WAC 51-11-1003	Section 1003: On-grade slab floors.	WAC 51-11-1313	Moisture control.
WAC 51-11-1004	Section 1004: Floors over unconditioned space.	WAC 51-11-1314	Air leakage.
WAC 51-11-1005	Section 1005: Above-grade walls.	WAC 51-11-1320	Prescriptive building envelope option.
WAC 51-11-1006	Section 1006 Default U-factors for glazing and doors.	WAC 51-11-1321	General.
WAC 51-11-1007	Section 1007 Ceilings.	WAC 51-11-1322	Opaque envelope.
WAC 51-11-1008	Section 1008 Air infiltration.	WAC 51-11-1323	Glazing.
		WAC 51-11-1330	Component performance building envelope option.
		WAC 51-11-1331	General.
		WAC 51-11-1332	Component U-factors.
		WAC 51-11-1333	UA calculations.
		WAC 51-11-1334	Solar heat gain coefficient rate calculations.
		WAC 51-11-1401	Scope.

WAC 51-11-1402	Mechanical ventilation.	WAC 51-11-1454	Pool covers and insulation.
WAC 51-11-1410	General requirements.	WAC 51-11-1460	Cold storage.
WAC 51-11-1411	HVAC equipment performance requirements.	WAC 51-11-1501	Scope.
WAC 51-11-1412	Controls.	WAC 51-11-1510	General requirements.
WAC 51-11-1413	Economizers.	WAC 51-11-1511	Electric motors.
WAC 51-11-1414	Ducting systems.	WAC 51-11-1512	Exempt lighting.
WAC 51-11-1415	Piping systems.	WAC 51-11-1513	Lighting controls.
WAC 51-11-1416	Commissioning and completion requirements.	WAC 51-11-1514	Exit signs.
WAC 51-11-1420	Simple systems (packaged unitary equipment).	WAC 51-11-1520	Prescriptive lighting option.
WAC 51-11-1421	System type.	WAC 51-11-1521	Prescriptive interior lighting requirements.
WAC 51-11-1422	Controls.	WAC 51-11-1522	Prescriptive exterior lighting requirements.
WAC 51-11-1423	Economizers.	WAC 51-11-1530	Lighting power allowance option.
WAC 51-11-1424	Separate air distribution systems.	WAC 51-11-1531	Interior lighting power allowance.
WAC 51-11-1430	Complex systems.	WAC 51-11-1532	Exterior lighting power allowance.
WAC 51-11-1431	System type.	WAC 51-11-99901	Section 1—General.
WAC 51-11-1432	Controls.	WAC 51-11-99902	Section 2—Simulation general requirements.
WAC 51-11-1433	Economizers.	WAC 51-11-99903	Section 3—Calculation of the proposed and baseline building performance.
WAC 51-11-1434	Separate air distribution systems.	WAC 51-11-99904	Section 4—Suggested software for systems analysis approach.
WAC 51-11-1435	Simultaneous heating and cooling.		
WAC 51-11-1436	Heat recovery.		
WAC 51-11-1437	Electric motor efficiency.		
WAC 51-11-1438	System criteria.		
WAC 51-11-1439	Exhaust systems.		
WAC 51-11-1440	Domestic water systems.		
WAC 51-11-1441	Water heater installation.		
WAC 51-11-1442	Shut-off controls.		
WAC 51-11-1443	Pipe insulation.		
WAC 51-11-1444	Conservation of water and pumping energy.		
WAC 51-11-1445	Heat recovery for domestic water systems.		
WAC 51-11-1446	Domestic hot water meters.		
WAC 51-11-1450	Heated pools.		
WAC 51-11-1451	General.		
WAC 51-11-1452	Pool water heaters.		
WAC 51-11-1453	Controls.		

**WSR 12-16-088****PROPOSED RULES****BUILDING CODE COUNCIL**

[Filed July 31, 2012, 3:36 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-03-111.

Title of Rule and Other Identifying Information: Adoption and amendment of the 2012 International Energy Conservation Code (IECC) (Commercial), chapter 51-11C WAC.

Hearing Location(s): Center Place Event Center, 2426 North Discovery Place, Spokane Valley, WA 99216, on September 14, 2012, at 10 a.m.; and at the DES Presentation Room, 1500 Jefferson S.E., Olympia, WA 98504, on September 21, 2012, at 10 a.m.

Date of Intended Adoption: November 9, 2012.

Submit Written Comments to: Ray Allshouse, Chair, State Building Code Council (SBCC), P.O. Box 41449,

Olympia, WA 98504-1449, e-mail sbcc@ga.wa.gov, fax (360) 586-9088, by September 21, 2012.

Assistance for Persons with Disabilities: Contact Peggy Bryden by September 7, 2012, (360) 407-9280.

**Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules:** The proposed rules adopt the 2012 edition of the IECC with amendments to incorporate requirements from the 2009 Washington State Energy Code, increase clarity, and increase energy efficiency as required in RCW 19.27A.160. As part of this adoption, the Energy Code is recodified as two separate WACs: Chapter 51-11R WAC for residential requirements and chapter 51-11C WAC for commercial requirements.

#### **Summary of Proposed Changes:**

**1. Change of Scope.** With the adoption of the 2012 IECC, the definition of "commercial" has changed. Chapter 51-11C WAC now applies to all buildings other than detached one- and two-family dwellings, townhouses AND Group R-2 and R-3 buildings three stories or less.

**2. Climate Zones.** The climate zones in the Energy Code have changed to reflect those of the IECC. Washington state is now comprised of three climate zones: Climate Zone 4 Marine, Climate Zone 5, and Climate Zone 6. For the residential code, Climate Zones 4 Marine and 5 share the same requirements. See Table R301.1 for a county by county breakdown of climate zones.

**3. Existing Buildings (C101.4.4).** The IECC requires that when a building changes use or occupancy type to one that uses more energy, the building must comply with the whole code. If that change involves a change in the lighting power density category, the lighting must comply with the new LPD.

**4. Envelope Requirements.** Two options are provided for the prescriptive envelope and assembly tables (C402.1.2, C402.2). The first includes the unamended IECC requirements for mass walls (U-0.078); the second includes a median value (U-0.104) between the current WSEC mass wall requirement (U-0.32) and the IECC requirement in climate zone 5/Marine 4 as well as clarification on where it may be used. The remaining values are the same in both options. Due to the shift in climate zones, some values were increased from requirements in WSEC CZ1 and decreased in some of WSEC CZ2 (see walls, metal building, steel-frame and wood frame). Footnote f was added to Table C402.2, providing guidance on clips or other attachments for insulation not considered continuous.

**5. Glazing.** The U-factor for nonmetal windows was reduced to 0.30 and for metal windows to 0.38 (Table C402.3). The prescriptive glazing limit is reduced from forty percent to thirty percent (C402.3.1). Skylights are required in spaces over 10,000 sq. ft. with fifteen ft. ceiling height (C402.3.1)—Climate Zone 6 is exempt from this requirement. Skylights in most commercial occupancies are required to have a glazing material or diffuser with a measured haze factor greater than ninety percent (C402.3.2.2).

**6. Air Leakage Requirements.** The IECC requires a continuous air barrier throughout all buildings, not just those over five stories (C402.4.1). Three options are provided for showing compliance: Using approved, tested materials listed in C402.4.1.2.1; using approved, tested assemblies listed in

C402.4.1.2.2; or performing a building test under ASTM E 779 or equivalent method. Motorized dampers must have a maximum leakage rate of 4 CFM/sq. ft. (C402.4.5.2). Vestibules are required at most entrance doors (C402.4.7), unless under four stories and less than 10,000 sq. ft. Requirements for sealing medium pressure duct system was added (C403.2.7.3.2).

**7. Refrigerated Warehouses.** The proposed amendment to the IECC includes requirements for all refrigerated warehouses (C402.6) to meet the federal standards. (Federal standards currently apply only to buildings under 3,000 sq. ft.)

**8. Mechanical Requirements.** The definition of a simple system has changed; now a single zone controlled by a single thermostat (C403.3). All other systems must follow complex system path (C403.4). Several exceptions have been removed from the economizer requirements (WSEC exceptions 1, 3 and 4) for complex systems (C403.4.1). An exception is added for simple systems for VRF air source heat pumps (C403.3.1).

Hydronic heat pumps are required to have controls to limit reheating and recooling of hydronic fluid (C403.4.3). The heat exchanger is also required to isolate the cooling tower (C403.4.3.3).

Packaged terminal heat pumps less than two tons are exempt from the requirement for microprocessor controls (C403.2.4.1).

The exception has been removed that allowed certain health care occupancies to use constant volume systems (C403.4.5). Large single-zone fan systems are required to use variable speed drives (C403.2.12.2). Requirements for fan power limitation are included in the IECC (C403.2.10.1).

Garage ventilation systems now include requirements for NO2 detectors (C403.2.5.3).

An exception for multifamily residential was added to the energy recovery ventilation requirements (C403.2.6), along with systems with less than seventy percent outdoor air.

Motors under 1 hp are now required to be ECM in most cases (C403.2.10).

Equipment efficiencies were updated to latest standards (Tables C403.2.3 (1) through (8)).

The IECC carries requirements for snow melt systems (C403.2.4.5).

**9. Service Water.** Pool heaters are required to be equipped with time switches (C404.10.2). Minimum pipe insulation requirements are now one inch.

**10. Lighting Requirements.** Parking garages now require daylighting controls (see definition of daylight zone and C405.2.2.3). Controls are required to allow for fifty percent lighting reduction in spaces without daylight or occupant controls (C405.2.1.2). Occupancy sensors are specified for more areas, including restrooms and janitor closets (C405.2.2.2). Controls are required to automatically shut off emergency lighting when space is unoccupied (C405.2.3). LPA is reduced to match ASHRAE 90.1 and includes both building area and space by space tables (C405.5.2).

**11. Escalators and Moving Walks.** Requirements for variable speed function and regenerative drives are included (C405.10).

12. **Additional Energy Efficiency Requirements.** Section C406 contains options for additional efficiency requirements all buildings must meet. There are four options in the amended version of the IECC: Efficient HVAC system; enhanced lighting controls; site generated renewable energy; and efficient building envelope.

13. **Total Building Performance.** (C407) The amended version of the IECC is less stringent than the model code in that the requirement for total building performance is ninety percent of the baseline building energy use rather than eighty-five percent.

14. **Commissioning.** HVAC commissioning is required for all complex systems and any simple system with an economizer or a building total mechanical equipment capacity over 480,000 Btu/h cooling capacity and 600,000 Btu/h heating capacity (C408.2). All lighting systems require functional testing (C408.3). Service water heating commissioning is required for buildings with a system capacity over 200,000 Btu/h (C408.4). All metering systems require commissioning (C408.5).

15. **Energy Metering.** Metering requirements (energy source meters (C409.2) and submeters for HVAC systems and water heating (C409.3)) are added for buildings over 20,000 square feet.

To review a copy of the commercial IECC with all changes to the model code marked, see <https://fortress.wa.gov/ga/apps/SBCC/File.ashx?cid=2259>. Changes to incorporate 2009 WSEC provisions are shown in black strikethrough/underline formatting, while changes from code change proposals received are shown in track changes mode.

#### **General layout of 2012 IECC:**

##### **Chapter 1: Scope, Admin and Enforcement**

##### **Chapter 2: Definitions**

##### **Chapter 3: General requirements**

C301 - Climate Zones

C302 - Design Conditions

C303 - Materials, Systems and Equip

##### **Chapter 4: Residential Energy Efficiency**

C401 - General Requirements

C402 - Building Envelope Requirements

C403 - Building Mechanical Systems

C404 - Service Water Heating

C405 - Electrical Power and Lighting

C406 - Additional Energy Efficiency Requirements

C407 - Total Building Performance

C408 - System Commissioning

C409 - Energy Metering and Energy Consumption

Mgmt

##### **Chapter 5: Reference Standards**

**Appendix A: Default Heat Loss Coefficients** (WSEC Ch. 10)

**Appendix B: Default Internal Loads and Schedules** (WSEC RS 29)

Appendix C: Exterior Design Conditions

Reasons Supporting Proposal: RCW 19.27A.020, 19.27A.160.

Statutory Authority for Adoption: RCW 19.27A.020, 19.27A.025, 19.27A.045, 19.27A.160.

Statute Being Implemented: Chapters 19.27, 19.27A and 34.05 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: The council is seeking comments on the issues proposed in the rules shown below.

Name of Proponent: SBCC, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Krista Braaksma, 1500 Jefferson S.E., P.O. Box 41449, Olympia, WA, (360) 407-9278.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

#### **Small Business Economic Impact Statement**

##### **Executive Summary:**

**Impact on Small Business:** The SBCC council is filing a proposed rule to adopt the 2012 edition of the IECC with state amendments (chapter 51-11 WAC). Since 1989 the SBCC has been responsible for updating the state energy code to improve energy efficiency in buildings, as required by chapter 19.27A RCW, and more recently has been tasked by the legislature to meet advanced energy efficiency targets. The council and its Energy Code technical advisory group have proposed about one hundred seventy-five amendments to this model code. These amendments were created to (1) maintain the stringency of the 2009 State Energy Code, (2) clarify and coordinate code requirements and (3) achieve legislatively mandated improvements in the energy efficiency of buildings.

The council has identified twenty-four of these state amendments that have economic impact. In addition, the model code itself contains another thirty provisions that are more stringent than the current state code.

A technical advisory group (TAG) was appointed by the council to review and amend the 2012 IECC. The TAG included all sectors of the construction industry and regulatory community, including small businesses. A paragraph-by-paragraph review of the entire code was undertaken, and the IECC was modified with existing Washington state requirements where those were more stringent or more clearly worded. The TAG and council then reviewed each of the one hundred seventy-one new amendments proposed by the public, and in some cases made extensive modifications to those proposals. All TAG meetings were open to the public, and small businesses participated actively in the process.

The majority of the amendments to the new code provide more clarity and consistency, which will streamline compliance for all stakeholders. However, the transition to the new code will require some general expenditures for design and construction businesses during the transition period, including small businesses. The degree of these impacts will diminish during the code cycle as rules become familiar and construction practices adjust. Where a code requirement increases the cost of a service or material, those businesses may see decreased revenue. Conversely, where a code requirement requires additional services or building materials, the businesses supplying those services and materials may see increased revenue.

**The Cost Impact on Small Businesses Compared to the Largest Businesses in the State Will Not Be Dispro-**

**portionate:** Each aspect of the new code was discussed and debated in the TAG and at the council, both of which worked to mitigate the cost and maximize the energy savings of each provision. Wherever small businesses appeared to be disproportionately impacted by a code provision, the code was modified to mitigate or eliminate that difference.

The council has found that in a competitive bidding climate, construction costs per square foot are similar between large and small industry firms. The cost to businesses of building permit plan review and inspection will not be affected by adoption of the new edition.

The impact on jobs is anticipated to be neutral or slightly positive for construction industry workers.

**Section I: Introduction/Compliance with the Rules:**

For a complete list of all state amendments contained in the proposed 2012 WSEC see this link: <https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=116>.

The primary change from the current code is adoption of a national model code, the 2012 IECC. Use of a national standard in place of a unique state code will generally simplify compliance and make more code resources available for practitioners. Most of the one hundred seventy-five proposed amendments to this code coordinate and clarify the rules, reducing the cost of compliance. Others transfer existing and familiar provisions from the existing state energy code into the amended IECC, and are thus cost neutral. A third category of amendments are intended to optimize energy efficiency. These typically decrease energy use in the building, and thus pay for their increased construction costs over time.

Beyond expenses related to the transition to the new code format, there will be little or no additional expenses related to reporting, recordkeeping or administrative code compliance paperwork. Where TAG members noted ambiguity or unwarranted complexity, the proposed code provision was modified to mitigate such difficulties. Local code officials were represented at all TAG meetings and actively intervened to ensure that plan review and field inspection work was not made more complicated or difficult than it is under the current code.

**Section II: Compliance Costs for Washington Businesses:** The 2012 IECC and the proposed amendments do contain significant new requirements, requiring additional expenditures by building owners. These construction costs will typically be offset by energy savings during the life of the building. The council identified the provisions as impacting construction cost and savings in comparison with the current Energy Code, as listed in Appendix A - see <https://fortress.wa.gov/ga/apps/SBCC/File.ashx?cid=2282>.

**Section III: Analysis of Proportionate Impact on Small Businesses:**

**The Impact on Small Businesses as Compared with the Largest Businesses in the State Will Not Be Disproportionate:** The majority of Washington state firms in the design and construction fields qualify as small businesses. In some cases, larger firms may be able to negotiate lower costs for materials and subcontracts than smaller firms. In other cases, smaller firms are able to be more competitive due to lower overhead costs. Apart from those general trends however, construction is a competitive marketplace where specific contracts are won without regard to the number of

employees on the bidder's staff. For this reason, the incremental costs of meeting the 2012 energy code are generally proportionate between large and small businesses.

**Section IV: Small Business Involvement and Impact Reduction Efforts:**

**Actions Taken to Reduce the Impact of the Rule on Small Businesses:** The TAG identified specific amendments with a cost impact and modified the code to reduce the impact while maintaining the intent of the code. Where the SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost. The proposed rule includes a definition of small business and provides exceptions for compliance with the updated regulation.

**Involvement of Small Business in the Development of the Proposed Rules:** A TAG composed of representatives from all sectors of industry and government reviewed the proposed changes to the 2012 WSEC.

For a directory of TAG members see <https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=116>.

**Section V: Number of Affected Businesses in Washington:**

Type of Business	NAICS CODE #	# IN STATE (UP TO 49 Employees)	# IN STATE (50 OR MORE Employees)
Homebuilders	236115	3985	12
Multifamily Housing Construction	236116	77	0
Residential Remodelers	236118	3468	1
Industrial Building Construction	236210	89	6
Commercial and Institutional Building Construction	236220	1305	40
Roofing Contractors	238160	973	7
Wood Window and Door Manufacturing	321911	39	2
Masonry Contractors	238140	572	1
Plumbing, Heating, Air Conditioning Contractors	238220	2319	48
Insulation Contractors	238310	1006	12
Architects	541310	602	16
Engineers	541330	1665	96

**Section VI: Jobs Created or Lost as a Result of These Rules:** The adoption of the latest code edition is not expected to significantly impact the number of jobs in the construction industry. These rules are likely to be job neutral overall, i.e., they will not result in any job gains or losses.

The construction industry continues to experience slow growth. Employment in all sectors impacts activity in the construction sector. According to *Washington Occupational Employment Projections*, posted by the department of employment security, the total number of construction trade workers statewide was 124,612 in the second quarter of 2011. There is an estimated increase of 0.6 percent by the second quarter of 2013, for a total number of construction trade workers of 126,093. Specialty trades show a similar pattern of slow growth by the second quarter of 2013:

• Carpenters	33,821	+0.4%
• Construction laborers	16,592	+0.5%
• Plumbers, pipefitters	8,885	+0.3%

Some sectors are expected to experience slightly more positive growth. The number of engineers employed in Washington is expected to grow in this same period about 2.2 percent to 54,769.

A copy of the statement may be obtained by contacting Tim Nogler, SBCC, P.O. Box 41449, Olympia, WA 98504-1449, phone (360) 407-9280, fax (360) 586-9088, e-mail sbcc@ga.wa.gov.

A cost-benefit analysis is not required under RCW 34.05.328. The SBCC is not one of the agencies identified as required to prepare an analysis. However, the council intends to prepare an analysis prior to the final adoption of these rules and a copy can be requested using the same information as provided for the small business economic impact statement.

July 31, 2012

C. Ray Allshouse  
Council Chair

## Chapter 51-11C WAC

### STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE 2012 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE, COMMERCIAL

#### NEW SECTION

#### **WAC 51-11C-10000 Chapter 1 [CE]—Scope and administration.**

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

#### **WAC 51-11C-10100 Section C101—Scope and general requirements.**

**C101.1 Title.** This code shall be known as the *International Energy Conservation Code* of [NAME OF JURISDICTION], and shall be cited as such. It is referred to herein as "this code."

**C101.2 Scope.** This code applies to *commercial buildings* and the buildings sites and associated systems and equipment.

**EXCEPTION:** The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

**C101.3 Intent.** This code shall regulate the design and construction of buildings for the effective use and conservation

of energy over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

#### **WAC 51-11C-10140 Section C101.4—Applicability.**

**C101.4 Applicability.** Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

**C101.4.1 Existing buildings.** Except as specified in this chapter, this code shall not be used to require the removal, *alteration* or abandonment of, nor prevent the continued use and maintenance of, an existing building or building system lawfully in existence at the time of adoption of this code.

**C101.4.2 Historic buildings.** The building official may modify the specific requirements of this code for historic buildings and require in lieu of alternate requirements which will result in a reasonable degree of energy efficiency. This modification may be allowed for those buildings or structures that are listed in the state or national register of historic places; designated as a historic property under local or state designation law or survey; certified as a contributing resource with a national register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the national or state registers of historic places either individually or as a contributing building to a historic district by the state historic preservation officer or the keeper of the national register of historic places.

**C101.4.3 Additions, alterations, renovations or repairs.** Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations or repairs shall not create an unsafe or hazardous condition or overload existing building systems. An addition shall be deemed to comply with this code if the addition alone complies or if the existing building and addition comply with this code as a single building.

**EXCEPTION:** The following need not comply provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Glass only replacements in an existing sash and frame.
3. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are insulated to full depth with insulation having a minimum nominal value of R-3.0 per inch installed per Section C402.
4. Construction where the existing roof, wall or floor cavity is not exposed.

5. Reroofing for roofs where neither the sheathing nor the insulation is exposed. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.
6. Replacement of existing doors that separate *conditioned space* from the exterior shall not require the installation of a vestibule or revolving door, provided, however, that an existing vestibule that separates a *conditioned space* from the exterior shall not be removed.
7. Alterations that replace less than 50 percent of the luminaires in a space, provided that such alterations do not increase the installed interior lighting power.
8. Alterations that replace only the bulb and ballast within the existing luminaires in a space provided that the *alteration* does not increase the installed interior lighting power.

**C101.4.3.1 Lighting and motors.** Alterations that replace 60 percent or more of the luminaires in a space enclosed by walls or ceiling-height partitions shall comply with Sections C405.5 and C405.6. Where less than 60 percent of the fixtures in a space enclosed by walls or ceiling-height partitions are new, the installed lighting wattage shall be maintained or reduced.

Where new wiring is being installed to serve added fixtures and/or fixtures are being relocated to a new circuit, controls shall comply with Sections C405.2.1, C405.2.2.3, C405.2.3, C405.3.4, and as applicable C408.3. In addition, office areas less than 300 ft<sup>2</sup> enclosed by walls or ceiling-height partitions, and all meeting and conference rooms, and all school classrooms, shall be equipped with occupancy sensors that comply with Section C405.2.2 and C408.3. Where a new lighting panel (or a moved lighting panel) with all new raceway and conductor wiring from the panel to the fixtures is being installed, controls shall also comply with the other requirements in Sections C405.2.2 and C408.3.

Where new walls or ceiling-height partitions are added to an existing space and create a new enclosed space, but the lighting fixtures are not being changed, other than being relocated, the new enclosed space shall have controls that comply with Sections C405.2.1, C 405.2.2, C405.2.3 and C408.3.

Those motors which are altered or replaced shall comply with Section C403.2.13.

**C101.4.3.2 Mechanical systems.** Those parts of systems which are altered or replaced shall comply with Section C403. Additions or alterations shall not be made to an existing mechanical system that will cause the existing mechanical system to become out of compliance.

All new systems in existing buildings, including packaged unitary equipment and packaged split systems, shall comply with Section C403.

Where mechanical cooling is added to a space that was not previously cooled, the mechanical cooling system shall comply with the economizer requirements in Section C403.3.1 or C403.4.1.

**EXCEPTION:** Alternate designs that are not in full compliance with this code may be approved when the building official determines that existing building or occupancy constraints make full compliance impractical or where full compliance would be economically impractical.

Alterations to existing mechanical cooling systems shall not decrease economizer capacity unless the system complies with Section C403.3.1 or C403.4.1. In addition, for existing mechanical cooling systems that do not comply with Sections C403.3.1 or Section 403.4.1, including both the individual unit size limits and the total building capacity limits on units without economizer, other alterations shall comply with Table C101.4.3.1.

When space cooling equipment is replaced, controls shall be installed to provide for integrated operation with economizer in accordance with Section C403.3.

Existing equipment currently in use may be relocated within the same floor or same tenant space if removed and reinstalled within the same permit.

**C101.4.4 Change in occupancy or use.** Spaces undergoing a change in occupancy that would result in an increase in demand for either fossil fuel or electrical energy shall comply with this code. Any space that is converted to a residential dwelling unit or portion thereof, from another use or occupancy shall comply with this code. Where the use in a space changes from one use in Table C405.5.2 (1) or (2) to another use in Table C405.5.2 (1) or (2), the installed lighting wattage shall comply with Section C405.5.

**C101.4.5 Change in space conditioning.** Any nonconditioned space that is altered to become *conditioned space* shall be required to be brought into full compliance with this code.

**C101.4.6 Mixed occupancy.** Where a building includes both *residential* and *commercial* occupancies, each occupancy shall be separately considered and meet the applicable provisions of IECC—Commercial Provisions or IECC—Residential Provisions.



## NEW SECTION

## WAC 51-11C-10143 Table C101.4.3.1—Economizer compliance options for mechanical alterations.

**Table C101.4.3.1  
Economizer Compliance Options for Mechanical Alterations**

	<b>Option A</b>	<b>Option B (alternate to A)</b>	<b>Option C (alternate to A)</b>	<b>Option D (alternate to A)</b>
<b>Unit Type</b>	<b>Any alteration with new or replacement equipment</b>	<b>Replacement unit of the same type with the same or smaller output capacity</b>	<b>Replacement unit of the same type with a larger output capacity</b>	<b>New equipment added to existing system or replacement unit of a different type</b>
1. Packaged Units	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,3</sup>	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,3</sup>	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,4</sup>
2. Split Systems	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	Efficiency: + 10/5% <sup>5</sup> Economizer: Shall not decrease existing economizer capability	Only for new units < 54,000 Btuh replacing unit installed prior to 1991 (one of two): Efficiency: + 10/5% <sup>5</sup> Economizer: 50% <sup>6</sup> For units > 54,000 Btuh or any units installed after 1991: Option A	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,4</sup>
3. Water Source Heat Pump	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	(two of three): Efficiency: + 10/5% <sup>5</sup> Flow control valve <sup>7</sup> Economizer: 50% <sup>6</sup>	(three of three): Efficiency: + 10/5% <sup>5</sup> Flow control valve <sup>7</sup> Economizer: 50% <sup>6</sup> (except for certain pre-1991 systems <sup>8</sup> )	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,4</sup> (except for certain pre-1991 systems <sup>8</sup> )
4. Hydronic Economizer using Air-Cooled Heat Rejection Equipment (Dry Cooler)	Efficiency: min. <sup>1</sup> Economizer: 1433 <sup>2</sup>	Efficiency: + 10/5% <sup>5</sup> Economizer: Shall not decrease existing economizer capacity	Option A	Efficiency: min. <sup>1</sup> Economizer: 1433 <sup>2,4</sup>
5. Air-Handling Unit (including fan coil units) where the system has an air-cooled chiller	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	Economizer: Shall not decrease existing economizer capacity	Option A (except for certain pre-1991 systems <sup>8</sup> )	Option A (except for certain pre-1991 systems <sup>8</sup> )
6. Air- Handling Unit (including fan coil units) and Water-cooled Process Equipment, where the system has a water-cooled chiller <sup>10</sup>	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	Economizer: Shall not decrease existing economizer capacity	Option A (except for certain pre-1991 systems <sup>8</sup> and certain 1991-2004 systems <sup>9</sup> )	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,4</sup> (except for certain pre-1991 systems <sup>8</sup> and certain 1991-2004 systems <sup>9</sup> )
7. Cooling Tower	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	No requirements	Option A	Option A

	<b>Option A</b>	<b>Option B (alternate to A)</b>	<b>Option C (alternate to A)</b>	<b>Option D (alternate to A)</b>
<b>Unit Type</b>	<b>Any alteration with new or replacement equipment</b>	<b>Replacement unit of the same type with the same or smaller output capacity</b>	<b>Replacement unit of the same type with a larger output capacity</b>	<b>New equipment added to existing system or replacement unit of a different type</b>
8. Air-Cooled Chiller	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	Efficiency: + 5% <sup>11</sup> Economizer: Shall not decrease existing economizer capacity	Efficiency (two of two): (1) + 10% <sup>12</sup> and (2) multistage Economizer: Shall not decrease existing economizer capacity	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,4</sup>
9. Water-Cooled Chiller	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	Efficiency (one of two): (1) + 10% <sup>13</sup> or (2) plate-frame heat exchanger <sup>15</sup> Economizer: Shall not decrease existing economizer capacity	Efficiency (two of two): (1) + 15% <sup>14</sup> and (2) plate-frame heat exchanger <sup>15</sup> Economizer: Shall not decrease existing economizer capacity	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,4</sup>
10. Boiler	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2</sup>	Efficiency: + 8% <sup>16</sup> Economizer: Shall not decrease existing economizer capacity	Efficiency: + 8% <sup>16</sup> Economizer: Shall not decrease existing economizer capacity	Efficiency: min. <sup>1</sup> Economizer: C403.4.1 <sup>2,4</sup>

<sup>1</sup> Minimum equipment efficiency shall comply with Section C403.2.3 and Tables C403.2.3(1) through C403.2.3(9).

<sup>2</sup> System and building shall comply with Section C403.4.1 (including both the individual unit size limits and the total building capacity limits on units without economizer). It is acceptable to comply using one of the exceptions to Section C403.4.1.

<sup>3</sup> All equipment replaced in an existing building shall have air economizer complying with Sections C403.3.1 and C403.4.1 unless both the individual unit size and the total capacity of units without air economizer in the building is less than that allowed in Exception 1 to Section C403.3.1.

<sup>4</sup> All separate new equipment added to an existing building shall have air economizer complying with Sections C403.3.1 and C403.4.1 unless both the individual unit size and the total capacity of units without air economizer in the building is less than that allowed in Exception 1 to Section C403.4.1.

<sup>5</sup> Equipment shall have a capacity-weighted average cooling system efficiency:

a. For units with a cooling capacity below 54,000 Btuh, a minimum of 10% greater than the requirements in Tables C403.2.3(1) and C403.2.3(2) (1.10 x values in Tables C403.2.3(1) and C403.2.3(2)).

b. For units with a cooling capacity of 54,000 Btuh and greater, a minimum of 5% greater than the requirements in Tables C403.2.3(1) and C403.2.3(2) (1.05 x values in Tables C403.2.3(1) and C403.2.3(2)).

<sup>6</sup> Minimum of 50% air economizer that is ducted in a fully enclosed path directly to every heat pump unit in each zone, except that ducts may terminate within 12 inches of the intake to an HVAC unit provided that they are physically fastened so that the outside air duct is directed into the unit intake. If this is an increase in the amount of outside air supplied to this unit, the outside air supply system shall be capable of providing this additional outside air and equipped with economizer control.

<sup>7</sup> Have flow control valve to eliminate flow through the heat pumps that are not in operation with variable speed pumping control complying with Section C403.4.3 for that heat pump.

– When the total capacity of all units with flow control valves exceeds 15% of the total system capacity, a variable frequency drive shall be installed on the main loop pump.

– As an alternate to this requirement, have a capacity-weighted average cooling system efficiency that is 5% greater than the requirements in note 5 (i.e., a minimum of 15%/10% greater than the requirements in Tables C403.2.3(1) and C403.2.3(2) (1.15/1.10 x values in Tables C403.2.3(1) and C403.2.3(2)).

<sup>8</sup> Systems installed prior to 1991 without fully utilized capacity are allowed to comply with Option B, provided that the individual unit cooling capacity does not exceed 90,000 Btuh.

<sup>9</sup> Economizer not required for systems installed with water economizer plate and frame heat exchanger complying with previous codes between 1991 and June 2013, provided that the total fan coil load does not exceed the existing or added capacity of the heat exchangers.

<sup>10</sup> For water-cooled process equipment where the manufacturers' specifications require colder temperatures than available with waterside economizer, that portion of the load is exempt from the economizer requirements.

<sup>11</sup> The air-cooled chiller shall have an IPLV efficiency that is a minimum of 5% greater than the IPLV requirements in Table C403.2.3(7) (1.05 x IPLV values in Table C403.2.3(7)).

<sup>12</sup> The air-cooled chiller shall:

a. Have an IPLV efficiency that is a minimum of 10% greater than the IPLV requirements in Table C403.2.3(7) (1.10 x IPLV values in Table C403.2.3(7)); and

b. Be multistage with a minimum of two compressors.

<sup>13</sup> The water-cooled chiller shall have an IPLV efficiency that is a minimum of 10% greater than the IPLV requirements in Table C403.2.3(7) (1.10 x IPLV values in Table C403.2.3(7)).

<sup>14</sup> The water-cooled chiller shall have an IPLV efficiency that is a minimum of 15% greater than the IPLV requirements in Table C403.2.3(7), (1.15 x IPLV values in Table C403.2.3(7)).

<sup>15</sup> Economizer cooling shall be provided by adding a plate-frame heat exchanger on the waterside with a capacity that is a minimum of 20% of the chiller capacity at standard AHRI rating conditions.

<sup>16</sup> The replacement boiler shall have an efficiency that is a minimum of 8% higher than the value in Table C403.2.3(5) (1.08 x value in Table C403.2.3(5)), except for electric boilers.

NEW SECTION**WAC 51-11C-10150 Section C101.5—Compliance.**

**C101.5 Compliance.** *Residential buildings* shall meet the provisions of IECC—Residential Provisions. *Commercial buildings* shall meet the provisions of IECC—Commercial Provisions.

**C101.5.1 Compliance materials.** The *code official* shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this code.

**C101.5.2 Low energy-buildings.** The following buildings, or portions thereof, separated from the remainder of the building by *building thermal envelope* assemblies complying with this code shall be exempt from the wall insulation provisions of this code:

1. Those with a peak design rate of energy usage less than 3.4 Btu/h • ft<sup>2</sup> (10.7 W/m<sup>2</sup>) or 1.0 watt/ft<sup>2</sup> (10.7 W/m<sup>2</sup>) of floor area for space conditioning purposes.
2. Those that do not contain *conditioned space*.
3. Greenhouses isolated from any conditioned space and not intended for occupancy.

NEW SECTION**WAC 51-11C-10200 Section C102—Alternate materials—Method of construction, design or insulating systems.**

**C102.1 General.** This code is not intended to prevent the use of any material, method of construction, design or insulating system not specifically prescribed herein, provided that such construction, design or insulating system has been *approved* by the *code official* as meeting the intent of this code.

NEW SECTION**WAC 51-11C-10300 Section C103—Construction documents.**

**C103.1 General.** Construction documents and other supporting data shall be submitted in one or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the *code official* is authorized to require necessary construction documents to be prepared by a registered design professional.

EXCEPTION: The *code official* is authorized to waive the requirements for construction documents or other supporting data if the *code official* determines they are not necessary to confirm compliance with this code.

**C103.2 Information on construction documents.** Construction documents shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted when *approved* by the *code official*. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall

include, but are not limited to, as applicable, insulation materials and their *R*-values; fenestration *U*-factors and SHGCs; area-weighted *U*-factor and SHGC calculations; mechanical system design criteria; mechanical and service water heating system and equipment types, sizes and efficiencies; economizer description; equipment and systems controls; fan motor horsepower (hp) and controls; duct sealing, duct and pipe insulation and location; lighting fixture schedule with wattage and control narrative; and air sealing details.

**C103.3 Examination of documents.** The *code official* shall examine or cause to be examined the accompanying construction documents and shall ascertain whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.

**C103.3.1 Approval of construction documents.** When the *code official* issues a permit where construction documents are required, the construction documents shall be endorsed in writing and stamped "Reviewed for Code Compliance." Such *approved* construction documents shall not be changed, modified or altered without authorization from the *code official*. Work shall be done in accordance with the *approved* construction documents.

One set of construction documents so reviewed shall be retained by the *code official*. The other set shall be returned to the applicant, kept at the site of work and shall be open to inspection by the *code official* or a duly authorized representative.

**C103.3.2 Previous approvals.** This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

**C103.3.3 Phased approval.** The *code official* shall have the authority to issue a permit for the construction of part of an energy conservation system before the construction documents for the entire system have been submitted or *approved*, provided adequate information and detailed statements have been filed complying with all pertinent requirements of this code. The holders of such permit shall proceed at their own risk without assurance that the permit for the entire energy conservation system will be granted.

**C103.4 Amended construction documents.** Changes made during construction that are not in compliance with the *approved* construction documents shall be resubmitted for approval as an amended set of construction documents.

**C103.5 Retention of construction documents.** One set of *approved* construction documents shall be retained by the *code official* for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws.

NEW SECTION**WAC 51-11C-10400 Section C104—Inspections.**

**C104.1 General.** Construction or work for which a permit is required shall be subject to inspection by the *code official*.

**C104.2 Required approvals.** Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the *code official*. The *code official*, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the *code official*. Where applicable, inspections shall include at least:

**C104.2.1 Envelope**

**C104.2.1.1 Wall Insulation Inspection:** To be made after all wall insulation and air vapor retarder sheet or film materials are in place, but before any wall covering is placed.

**C104.2.1.2 Glazing Inspection:** To be made after glazing materials are installed in the building.

**C104.2.1.3 Exterior Roofing Insulation:** To be made after the installation of the roof insulation, but before concealment.

**C104.2.1.4 Slab/Floor Insulation:** To be made after the installation of the slab/floor insulation, but before concealment.

**C104.2.2 Mechanical**

**C104.2.2.1 Mechanical Equipment Efficiency and Economizer:** To be made after all equipment and controls required by this code are installed and prior to the concealment of such equipment or controls.

**C104.2.2.2 Mechanical Pipe and Duct Insulation:** To be made after all pipe and duct insulation is in place, but before concealment.

**C104.2.3 Lighting and motors**

**C104.2.3.1 Lighting Equipment and Controls:** To be made after the installation of all lighting equipment and controls required by this code, but before concealment of the lighting equipment.

**C104.2.3.2 Motor Inspections:** To be made after installation of all equipment covered by this code, but before concealment.

**C104.3 Final inspection.** The building shall have a final inspection and not be occupied until *approved*.

**C104.4 Reinspection.** A building shall be reinspected when determined necessary by the *code official*.

**C104.5 Approved inspection agencies.** The *code official* is authorized to accept reports of *approved* inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

**C104.6 Inspection requests.** It shall be the duty of the holder of the permit or their duly authorized agent to notify the *code official* when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

**C104.7 Reinspection and testing.** Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the *code official* for inspection and testing.

**C104.8 Approval.** After the prescribed tests and inspections indicate that the work complies in all respects with this code, a notice of approval shall be issued by the *code official*.

**C104.8.1 Revocation.** The *code official* is authorized to, in writing, suspend or revoke a notice of approval issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure, premise, or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.

NEW SECTION**WAC 51-11C-10500 Section C105—Validity.**

**C105.1 General.** If a portion of this code is held to be illegal or void, such a decision shall not affect the validity of the remainder of this code.

NEW SECTION**WAC 51-11C-10600 Section C106—Referenced standards.**

**C106.1 Referenced codes and standards.** The codes and standards referenced in this code shall be those listed in Chapter 5, and such codes and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections C106.1.1 and C106.1.2.

**C106.1.1 Conflicts.** Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

**C106.1.2 Provisions in referenced codes and standards.** Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

**C106.2 Conflicting requirements.** Where the provisions of this code and the referenced standards conflict, the provisions of this code shall take precedence.

**C106.3 Application of references.** References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

**C106.4 Other laws.** The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. In addition to the requirements of this code, all occupancies shall conform to the provisions included in the State Building Code (chapter 19.27 RCW). In case of conflicts among the codes enumerated in RCW 19.27.031 (1) through (4) and this code, an earlier named code shall govern over those following. In the case of conflict between the duct sealing and insulation requirements of this code and the duct insulation requirements of Sections 603 and 604 of the *International Mechanical Code*, the duct insulation requirements of this code, or where applicable, a local jurisdiction's energy code shall govern.

#### NEW SECTION

##### **WAC 51-11C-10700 Section C107—Fees.**

**C107.1 Fees.** A permit shall not be issued until the fees prescribed in Section C107.2 have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

**C107.2 Schedule of permit fees.** A fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority.

**C107.3 Work commencing before permit issuance.** Any person who commences any work before obtaining the necessary permits shall be subject to an additional fee established by the *code official*, which shall be in addition to the required permit fees.

**C107.4 Related fees.** The payment of the fee for the construction, *alteration*, removal or demolition of work done in connection to or concurrently with the work or activity authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

**C107.5 Refunds.** The *code official* is authorized to establish a refund policy.

#### NEW SECTION

##### **WAC 51-11C-10800 Section C108—Stop work order.**

**C108.1 Authority.** Whenever the *code official* finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or unsafe, the *code official* is authorized to issue a stop work order.

**C108.2 Issuance.** The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

**C108.3 Emergencies.** Where an emergency exists, the *code official* shall not be required to give a written notice prior to stopping the work.

**C108.4 Failure to comply.** Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than [AMOUNT] dollars or more than [AMOUNT] dollars.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

##### **WAC 51-11C-10900 Section C109—Board of appeals.**

**C109.1 General.** In order to hear and decide appeals of orders, decisions or determinations made by the *code official* relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The *code official* shall be an ex officio member of said board but shall have no vote on any matter before the board. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *code official*.

**C109.2 Limitations on authority.** An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

**C109.3 Qualifications.** The board of appeals shall consist of members who are qualified by experience and training and are not employees of the jurisdiction.

#### NEW SECTION

**WAC 51-11C-11000 Section C110—Violations.** It shall be unlawful for any person, firm, or corporation to erect or construct any building, or remodel or rehabilitate any existing building or structure in the state, or allow the same to be done, contrary to or in violation of any of the provisions of this code.

#### NEW SECTION

**WAC 51-11C-11100 Section C111—Liability.** Nothing contained in this code is intended to be nor shall be construed to create or form the basis for any liability on the part of any city or county or its officers, employees or agents for any injury or damage resulting from the failure of a building to conform to the provisions of this code.

NEW SECTION**WAC 51-11C-20000 Chapter 2 [CE]—Definitions.**

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION**WAC 51-11C-20100 Section C201—General.**

**C201.1 Scope.** Unless stated otherwise, the following words and terms in this code shall have the meanings indicated in this chapter.

**C201.2 Interchangeability.** Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural includes the singular.

**C201.3 Terms defined in other codes.** Terms that are not defined in this code but are defined in the *International Building Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code* or the *International Residential Code* shall have the meanings ascribed to them in those codes.

**C201.4 Terms not defined.** Terms not defined by this chapter shall have ordinarily accepted meanings such as the context implies.

NEW SECTION

**WAC 51-11C-20200 Section C202—General definitions.**

NEW SECTION**WAC 51-11C-20201 Section C202.1—A.**

**ABOVE-GRADE WALL.** A wall enclosing *conditioned space* that is not a below-grade wall. This includes between-floor spandrels, peripheral edges of floors, roof and basement knee walls, dormer walls, gable end walls, walls enclosing a mansard roof and skylight shafts.

**ACCESSIBLE.** Admitting close approach as a result of not being guarded by locked doors, elevation or other effective means (see "Readily *accessible*").

**ADDITION.** An extension or increase in the *conditioned space* floor area or height of a building or structure.

**AIR BARRIER.** Material(s) assembled and joined together to provide a barrier to air leakage through the building envelope. An air barrier may be a single material or a combination of materials.

**ALTERATION.** Any construction or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a mechanical system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit.

**APPROVED.** Approval by the *code official* as a result of investigation and tests conducted by him or her, or by reason of accepted principles or tests by nationally recognized organizations.

**ATTIC AND OTHER ROOFS.** All other roofs, including roofs with insulation entirely below (inside of) the roof structure

(i.e., attics, cathedral ceilings, and single-rafter ceilings), roofs with insulation both above and below the roof structure, and roofs without insulation but excluding roofs with insulation entirely above deck and metal building roofs.

**AUTOMATIC.** Self-acting, operating by its own mechanism when actuated by some impersonal influence, as, for example, a change in current strength, pressure, temperature or mechanical configuration (see "Manual").

NEW SECTION**WAC 51-11C-20202 Section C202.2—B.**

**BELOW-GRADE WALL.** That portion of a wall in the building envelope that is entirely below the finish grade and in contact with the ground.

**BUILDING.** Any structure used or intended for supporting or sheltering any use or occupancy, including any mechanical systems, service water heating systems and electric power and lighting systems located on the building site and supporting the building.

**BUILDING COMMISSIONING.** A process that verifies and documents that the selected building systems have been designed, installed, and function according to the owner's project requirements and construction documents, and to minimum code requirements.

**BUILDING ENTRANCE.** Any door, set of doors, doorway, or other form of portal that is used to gain access to the building from the outside by the public.

**BUILDING SITE.** A contiguous area of land that is under the ownership or control of one entity.

**BUILDING THERMAL ENVELOPE.** The below-grade walls, above-grade walls, floor, roof, and any other building elements that enclose *conditioned space* or provides a boundary between *conditioned space* and exempt or unconditioned space.

NEW SECTION**WAC 51-11C-20203 Section C202.3—C.**

**C-FACTOR (THERMAL CONDUCTANCE).** The coefficient of heat transmission (surface to surface) through a building component or assembly, equal to the time rate of heat flow per unit area and the unit temperature difference between the warm side and cold side surfaces (Btu/h ft<sup>2</sup> x °F) [W/(m<sup>2</sup> x K)].

**CODE OFFICIAL.** The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.

**COEFFICIENT OF PERFORMANCE (COP) - COOLING.** The ratio of the rate of heat removal to the rate of energy input, in consistent units, for a complete refrigerating system or some specific portion of that system under designated operating conditions.

**COEFFICIENT OF PERFORMANCE (COP) - HEATING.** The ratio of the rate of heat removal to the rate of heat delivered to the rate of energy input, in consistent units, for a complete heat pump system, including the compressor and, if applicable, auxiliary heat, under designated operating conditions.

**COMMERCIAL BUILDING.** For this code, all buildings that are not included in the definition of "Residential buildings."

**CONDITIONED FLOOR AREA.** The horizontal projection of the floors associated with the *conditioned space*.

**CONDITIONED SPACE.** An area or room within a building being heated or cooled, containing uninsulated ducts, or with a fixed opening directly into an adjacent *conditioned space*.

**CONTINUOUS AIR BARRIER.** A combination of materials and assemblies that restrict or prevent the passage of air through the building thermal envelope.

**CONTINUOUS INSULATION (CI).** Insulation that is continuous across all structural members without thermal bridges other than fasteners (i.e., screws and nails) and service openings. It is installed on the interior or exterior or is integral to any opaque surface of the building envelope. For the purposes of this definition of continuous insulation, only screws and nails are considered fasteners. Insulation installed between metal studs, z-girts, z-channels, shelf angles, or insulation with penetrations by brick ties and offset brackets, or any other similar framing is not considered continuous insulation, regardless of whether the metal is continuous or occasionally discontinuous or has thermal break material.

**CURTAIN WALL.** Fenestration products used to create an external nonload-bearing wall that is designed to separate the exterior and interior environments.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

## NEW SECTION

### **WAC 51-11C-20204 Section C202.4—D.**

**DATA ACQUISITION SYSTEM.** An electronic system managed by the building owner to collect, tabulate and display metering information.

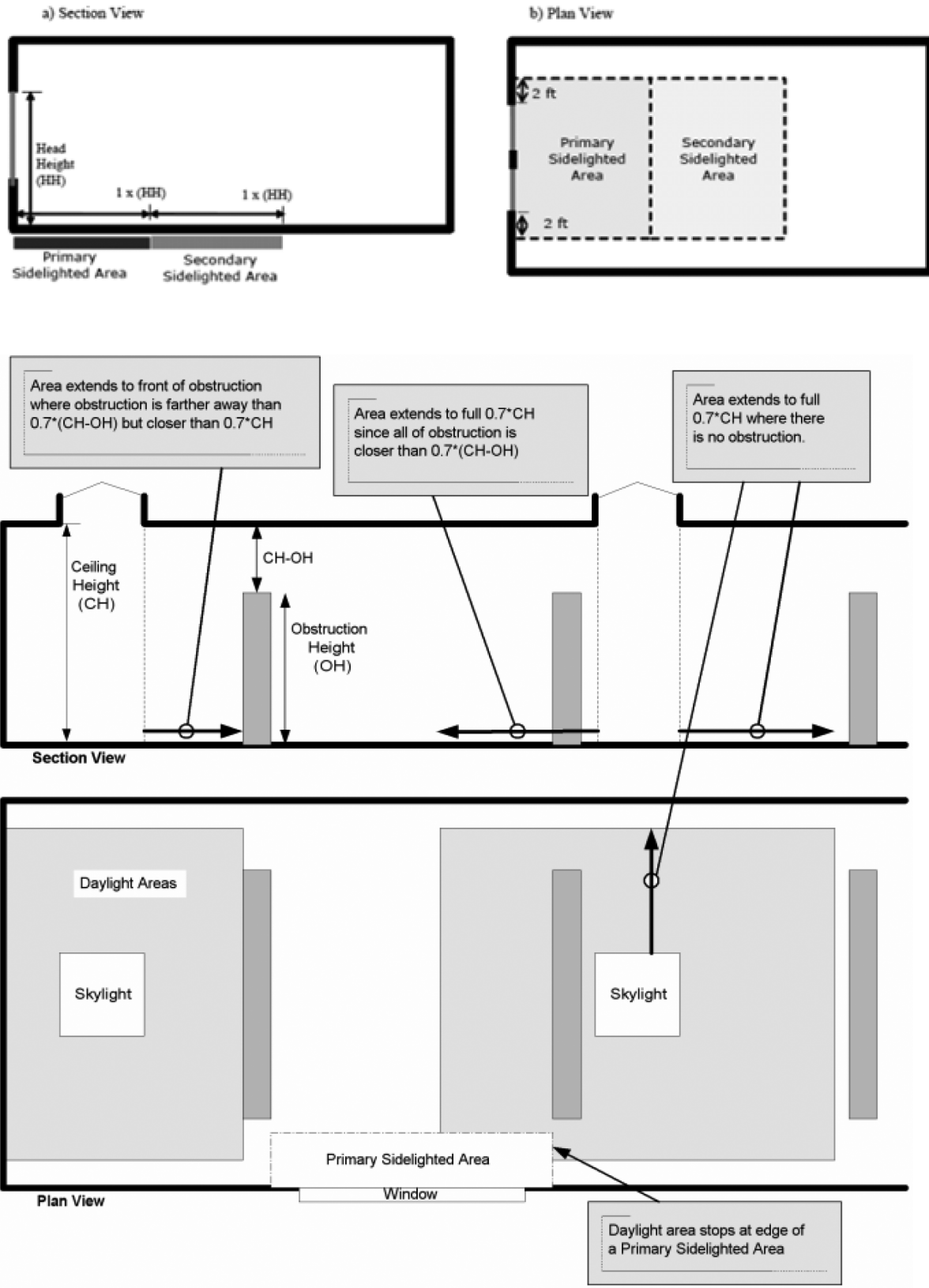
**DAYLIGHT ZONE.** (See also Fig. C202.4)

1. **Under skylights.** The area under skylights whose horizontal dimension, in each direction, is equal to the skylight dimension in that direction plus either 70 percent of the floor-to-ceiling height or the dimension to a ceiling height opaque partition, or one-half the distance to adjacent skylights or vertical fenestration, whichever is least.

2. **Adjacent to vertical fenestration.** The area adjacent to vertical fenestration which receives daylight through the fenestration. For purposes of this definition and unless more detailed analysis is provided, the primary daylight *zone* depth is assumed to extend into the space a distance equal to the window head height and the secondary daylighted zone extends from the edge of the primary zone to a distance equal to two times the window head height or to the nearest ceiling height opaque partition, whichever is less. The daylight *zone* width is assumed to be the width of the window plus 2 feet (610 mm) on each side, or the window width plus the distance to an opaque partition, or the window width plus one-half the distance to adjacent skylight or vertical fenestration, whichever is least.

3. **In parking garages.** The area within 20 feet of any portion of a perimeter wall that has a net opening to wall ratio of at least 40 percent and no exterior obstructions within 20 feet.

Figure C202.1





**DEMAND CONTROL VENTILATION (DCV).** A ventilation system capability that provides for the automatic reduction of outdoor air intake below design rates when the actual occupancy of spaces served by the system is less than design occupancy.

**DEMAND RECIRCULATION WATER SYSTEM.** A water distribution system where pump(s) prime the service hot water piping with heated water upon demand for hot water.

**DUCT.** A tube or conduit utilized for conveying air. The air passages of self-contained systems are not to be construed as air ducts.

**DUCT SYSTEM.** A continuous passageway for the transmission of air that, in addition to ducts, includes duct fittings, dampers, plenums, fans and accessory air-handling equipment and appliances.

**DWELLING UNIT.** A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

**DYNAMIC GLAZING.** Any fenestration product that has the fully reversible ability to change its performance properties, including *U*-factor, SHGC, or VT.

#### NEW SECTION

##### **WAC 51-11C-20205 Section C202.5—E.**

**ECONOMIZER, AIR.** A duct and damper arrangement and automatic control system that allows a cooling system to supply outside air to reduce or eliminate the need for mechanical cooling during mild or cold weather.

**ECONOMIZER, WATER.** A system where the supply air of a cooling system is cooled indirectly with water that is itself cooled by heat or mass transfer to the environment without the use of mechanical cooling.

**ENCLOSED SPACE.** A volume surrounded by solid surfaces such as walls, floors, roofs, and openable devices such as doors and operable windows.

**END USE CATEGORY.** A load or group of loads that consume energy in a common or similar manner.

**ENERGY ANALYSIS.** A method for estimating the annual energy use of the *proposed design* and *standard reference design* based on estimates of energy use.

**ENERGY COST.** The total estimated annual cost for purchased energy for the building functions regulated by this code, including applicable demand charges.

**ENERGY RECOVERY VENTILATION SYSTEM.** Systems that employ air-to-air heat exchangers to recover energy from exhaust air for the purpose of preheating, precooling, humidifying or dehumidifying outdoor ventilation air prior to supplying the air to a space, either directly or as part of an HVAC system.

**ENERGY SIMULATION TOOL.** An *approved* software program or calculation-based methodology that projects the annual energy use of a building.

**ENERGY SOURCE METER.** A meter placed at the source of the incoming energy that measures the energy delivered to the whole building or metered space.

**ENTRANCE DOOR.** Fenestration products used for ingress, egress and access in nonresidential buildings including, but not limited to, exterior entrances that utilize latching hard-

ware and automatic closers and contain over 50 percent glass specifically designed to withstand heavy use and possibly abuse.

**EQUIPMENT ROOM.** A space that contains either electrical equipment, mechanical equipment, machinery, water pumps or hydraulic pumps that are a function of the building's services.

**EXTERIOR WALL.** Walls including both above-grade walls and below-grade walls.

#### NEW SECTION

##### **WAC 51-11C-20206 Section C202.6—F.**

**FAN BRAKE HORSEPOWER (BHP).** The horsepower delivered to the fan's shaft. Brake horsepower does not include the mechanical drive losses (belts, gears, etc.).

**FAN SYSTEM BHP.** The sum of the fan brake horsepower of all fans that are required to operate at fan system design conditions to supply air from the heating or cooling source to the *conditioned space(s)* and return it to the source or exhaust it to the outdoors.

**FAN SYSTEM DESIGN CONDITIONS.** Operating conditions that can be expected to occur during normal system operation that result in the highest supply fan airflow rate to conditioned spaces served by the system.

**FAN SYSTEM MOTOR NAMEPLATE HP.** The sum of the motor nameplate horsepower of all fans that are required to operate at design conditions to supply air from the heating or cooling source to the *conditioned space(s)* and return it to the source or exhaust it to the outdoors.

**FENESTRATION.** Skylights, roof windows, vertical windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors. Fenestration includes products with glass and nonglass glazing materials.

**FENESTRATION AREA.** Total area of the fenestration measured using the rough opening, and including the glazing, sash and frame.

**FENESTRATION PRODUCT, FIELD-FABRICATED.** A fenestration product whose frame is made at the construction site of standard dimensional lumber or other materials that were not previously cut, or otherwise formed with the specific intention of being used to fabricate a fenestration product or exterior door. Field fabricated does not include site-built fenestration.

**FENESTRATION PRODUCT, SITE-BUILT.** A fenestration designed to be made up of field-glazed or field-assembled units using specific factory cut or otherwise factory-formed framing and glazing units. Examples of site-built fenestration include storefront systems, curtain walls, and atrium roof systems.

**F-FACTOR.** The perimeter heat loss factor for slab-on-grade floors (Btu/h x ft x °F) [W/(m x K)].

**FURNACE ELECTRICITY RATIO.** The ratio of furnace electricity use to total furnace energy computed as ratio =  $(3.412 \times EAE) / 1000 \times EF + 3.412 \times EAE$  where *EAE* (average annual auxiliary electrical consumption) and *EF* (average annual fuel energy consumption) are defined in Appendix N to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations and *EF* is expressed in millions of Btus per year.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

##### **WAC 51-11C-20207 Section C202.7—G.**

**GENERAL LIGHTING.** Lighting that provides a substantially uniform level of illumination throughout an area. General lighting shall not include decorative lighting or lighting that provides a dissimilar level of illumination to serve a specialized application or feature within such area.

#### NEW SECTION

##### **WAC 51-11C-20208 Section C202.8—H.**

**HEAT TRAP.** An arrangement of piping and fittings, such as elbows, or a commercially available heat trap that prevents thermosiphoning of hot water during standby periods.

**HEATED SLAB-ON-GRADE FLOOR.** Slab-on-grade floor construction in which the heating elements, hydronic tubing, or hot air distribution system is in contact with, or placed within or under, the slab.

**HIGH-EFFICACY LUMINAIRES.** Luminaires with compact fluorescent lamps, T-8 or smaller diameter linear fluorescent lamps, or lamps with a minimum efficacy of:

1. 60 Lumens per watt for lamps over 40 watts;
2. 50 Lumens per watt for lamps over 15 watts to 40 watts; and
3. 40 Lumens per watt for lamps 15 watts or less.

**HUMIDISTAT.** A regulatory device, actuated by changes in humidity, used for automatic control of relative humidity.

#### NEW SECTION

##### **WAC 51-11C-20209 Section C202.9—I.**

**INFILTRATION.** The uncontrolled inward air leakage into a building caused by the pressure effects of wind or the effect of differences in the indoor and outdoor air density or both.

**INSULATING SHEATHING.** An insulating board with a core material having a minimum *R*-value of R-2.

**INSULATION ENTIRELY ABOVE DECK.** A roof with all insulation:

1. Installed above (outside of) the roof structure; and
2. Continuous (i.e., uninterrupted by framing members).

**INTEGRATED ENERGY EFFICIENCY RATIO (IEER).** A single-number figure of merit expressing cooling part-load EER efficiency for unitary air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities for the equipment.

**INTEGRATED PART LOAD VALUE (IPLV).** A single number figure of merit based on part-load EER, COP, or kW/ton expressing part-load efficiency for air conditioning and heat pump equipment on the basis of weighted operation at various load capacities for equipment.

#### NEW SECTION

##### **WAC 51-11C-20210 Section C202.10—J.**

#### NEW SECTION

##### **WAC 51-11C-20211 Section C202.11—K.**

#### NEW SECTION

##### **WAC 51-11C-20212 Section C202.12—L.**

**LABELED.** Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

**LISTED.** Equipment, materials, products or services included in a list published by an organization acceptable to the *code official* and concerned with evaluation of products or services that maintains periodic inspection of production of *listed* equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

**LOW-VOLTAGE LIGHTING.** A lighting system consisting of an isolating power supply, the low voltage luminaires, and associated equipment that are all identified for the use. The output circuits of the power supply are rated for not more than 25 amperes and operate at 30 volts (42.4 volts peak) or less under all load conditions.

**LUMINAIRE.** A complete lighting unit consisting of a lamp or lamps together with the housing designed to distribute the light, position and protect the lamps, and connect the lamps to the power supply.

#### NEW SECTION

##### **WAC 51-11C-20213 Section C202.13—M.**

**MANUAL.** Capable of being operated by personal intervention (see "Automatic").

**METAL BUILDING ROOF.** A roof that:

1. Is constructed with a metal, structural, weathering surface;
2. Has no ventilated cavity; and
3. Has the insulation entirely below deck (i.e., does not include composite concrete and metal deck construction nor a roof framing system that is separated from the superstructure by a wood substrate) and whose structure consists of one or more of the following configurations:
  - a. Metal roofing in direct contact with the steel framing members;
  - b. Metal roofing separated from the steel framing members by insulation;
  - c. Insulated metal roofing panels installed as described in a or b.

**METAL BUILDING WALL.** A *wall* whose structure consists of metal spanning members supported by steel structural members (i.e., does not include spandrel glass or metal panels in curtain *wall systems*).

**METER.** A device that measures the flow of energy.

**MICROCELL.** A wireless communication facility consisting of an antenna that is either: (a) Four (4) feet in height and

with an area of not more than 580 square inches; or (b) if a tubular antenna, no more than four (4) inches in diameter and no more than six (6) feet in length; and the associated equipment cabinet that is six (6) feet or less in height and no more than 48 square feet in floor area.

#### NEW SECTION

##### **WAC 51-11C-20214 Section C202.14—N.**

**NAMEPLATE HORSEPOWER.** The nominal motor horsepower rating stamped on the motor nameplate.

**NONSTANDARD PART LOAD VALUE (NPLV).** A single-number part-load efficiency figure of merit calculated and referenced to conditions other than IPLV conditions, for units that are not designed to operate at ARI standard rating conditions.

#### NEW SECTION

##### **WAC 51-11C-20215 Section C202.15—O.**

**ON-SITE RENEWABLE ENERGY.** Energy derived from solar radiation, wind, waves, tides, landfill gas, biomass, or the internal heat of the earth. The energy system providing on-site renewable energy shall be located on the project site.

#### NEW SECTION

##### **WAC 51-11C-20216 Section C202.16—P.**

**PERSONAL WIRELESS SERVICE FACILITY.** A wireless communication facility (WCF), including a microcell, which is a facility for the transmission and/or reception of radio frequency signals and which may include antennas, equipment shelter or cabinet, transmission cables, a support structure to achieve the necessary elevation, and reception and/or transmission devices or antennas.

**PROPOSED DESIGN.** A description of the proposed building used to estimate annual energy use for determining compliance based on total building performance.

#### NEW SECTION

##### **WAC 51-11C-20217 Section C202.17—Q.**

#### NEW SECTION

##### **WAC 51-11C-20218 Section C202.18—R.**

**READILY ACCESSIBLE.** Capable of being reached quickly for operation, renewal or inspection without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders or access equipment (see "*Accessible*").

**REFRIGERATED WAREHOUSE COOLER.** An enclosed storage space capable of being refrigerated to temperatures above 32°F that can be walked into and has a total chilled storage area of 3,000 ft<sup>2</sup> or greater.

**REFRIGERATED WAREHOUSE FREEZER.** An enclosed storage space capable of being refrigerated to temperatures at or below 32°F that can be walked into and has a total chilled storage area of 3,000 ft<sup>2</sup> or greater.

**REPAIR.** The reconstruction or renewal of any part of an existing building.

**RESIDENTIAL BUILDING.** For this code, includes detached one- and two-family dwellings and multiple single-family dwellings (townhouses) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane.

**ROOF ASSEMBLY.** A system designed to provide weather protection and resistance to design loads. The system consists of a roof covering and roof deck or a single component serving as both the roof covering and the roof deck. A roof assembly includes the roof covering, underlayment, roof deck, insulation, vapor retarder and interior finish.

**R-VALUE (THERMAL RESISTANCE).** The inverse of the time rate of heat flow through a body from one of its bounding surfaces to the other surface for a unit temperature difference between the two surfaces, under steady state conditions, per unit area ( $h \cdot \text{ft}^2 \cdot ^\circ\text{F}/\text{Btu}$ ) [ $\text{m}^2 \cdot \text{K}/\text{W}$ ].

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

##### **WAC 51-11C-20219 Section C202.19—S.**

**SCREW LAMP HOLDERS.** A lamp base that requires a screw-in-type lamp, such as a compact-fluorescent, incandescent, or tungsten-halogen bulb.

**SEMI-HEATED SPACE.** An enclosed space within a building, including adjacent connected spaces separated by an uninsulated component (e.g., basements, utility rooms, garages, corridors), which:

1. Has a maximum heating system output capacity which shall be 3 Btu/(h-ft<sup>2</sup>) but not greater than 8 Btu/(h-ft<sup>2</sup>) in Climate Zones 4 and 5, or shall be 5 Btu/(h-ft<sup>2</sup>) but not greater than 12 Btu/(h-ft<sup>2</sup>) in Climate Zone 6;

2. Is not a cold storage space or frozen storage space.

**SERVICE WATER HEATING.** Heating water for domestic or commercial purposes other than space heating and process requirements.

**SKYLIGHT.** Glass or other transparent or translucent glazing material installed at a slope of less than 60 degrees (1.05 rad) from horizontal. Glazing material in skylights, including unit skylights, solariums, sunrooms, roofs and sloped walls is included in this definition.

**SLAB BELOW GRADE.** Any portion of a slab floor in contact with the ground which is more than 24 inches below the final elevation of the nearest exterior grade.

**SLAB-ON-GRADE FLOOR.** That portion of a slab floor of the building envelope that is in contact with the ground and that is either above grade or is less than or equal to 24 inches below the final elevation of the nearest exterior grade.

**SLEEPING UNIT.** A room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not *sleeping units*.

**SMALL BUSINESS.** Any business entity (including a sole proprietorship, corporation, partnership or other legal entity) which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has fifty or fewer employees.

**SOLAR HEAT GAIN COEFFICIENT (SHGC).** The ratio of the solar heat gain entering the space through the fenestration

assembly to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed solar radiation which is then reradiated, conducted or convected into the space.

**STANDARD REFERENCE DESIGN.** A version of the *proposed design* that meets the minimum requirements of this code and is used to determine the maximum annual energy use requirement for compliance based on total building performance.

**STEEL-FRAMED WALL.** A *wall* with a cavity (insulated or otherwise) whose exterior surfaces are separated by steel framing members (i.e., typical steel stud *walls* and curtain *wall systems*).

**STOREFRONT.** A nonresidential system of doors and windows mullered as a composite fenestration structure that has been designed to resist heavy use. *Storefront* systems include, but are not limited to, exterior fenestration systems that span from the floor level or above to the ceiling of the same story on commercial buildings, with or without mullered windows and doors.

**SUBSYSTEM METER.** A meter placed downstream of the energy supply meter that measures the energy delivered to a load or a group of loads.

**SUNROOM.** A one-story structure attached to a dwelling with a glazing area in excess of 40 percent of the gross area of the structure's exterior walls and roof.

#### NEW SECTION

##### **WAC 51-11C-20220 Section C202.20—T.**

**THERMAL ISOLATION.** Physical and space conditioning separation from *conditioned space(s)*. The *conditioned space(s)* shall be controlled as separate zones for heating and cooling or conditioned by separate equipment.

**THERMOSTAT.** An automatic control device used to maintain temperature at a fixed or adjustable set point.

#### NEW SECTION

##### **WAC 51-11C-20221 Section C202.21—U.**

**U-FACTOR (THERMAL TRANSMITTANCE).** The coefficient of heat transmission (air to air) through a building component or assembly, equal to the time rate of heat flow per unit area and unit temperature difference between the warm side and cold side air films (Btu/h • ft<sup>2</sup> • °F) [W/(m<sup>2</sup> • K)].

**UNHEATED SLAB-ON-GRADE FLOOR.** A slab-on-grade floor that is not a heated slab-on-grade floor.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

##### **WAC 51-11C-20222 Section C202.22—V.**

**VENTILATION.** The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, any space.

**VENTILATION AIR.** That portion of supply air that comes from outside (outdoors) plus any recirculated air that has been treated to maintain the desired quality of air within a designated space.

**VERTICAL FENESTRATION.** All fenestration other than skylights.

**VISIBLE TRANSMITTANCE [VT].** The ratio of visible light entering the space through the fenestration product assembly to the incident visible light, visible transmittance, includes the effects of glazing material and frame and is expressed as a number between 0 and 1.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

##### **WAC 51-11C-20223 Section C202.23—W.**

**WALK-IN COOLER.** An enclosed storage space capable of being refrigerated to temperatures above 32°F that can be walked into and has a total chilled storage area of less than 3,000 ft<sup>2</sup>.

**WALK-IN FREEZER.** An enclosed storage space capable of being refrigerated to temperatures at or below 32°F that can be walked into and has a total chilled storage area of less than 3,000 ft<sup>2</sup>.

**WALL.** That portion of the *building envelope*, including *opaque* area and *fenestration*, that is vertical or tilted at an angle of 60 degrees from horizontal or greater. This includes *above-grade walls* and *below-grade walls*, between floor spandrels, peripheral edges of floors, and foundation *walls*.

**WOOD-FRAMED AND OTHER WALLS.** All other *wall* types, including wood stud *walls*.

#### NEW SECTION

##### **WAC 51-11C-20224 Section C202.24—X, Y, Z.**

**ZONE.** A space or group of spaces within a building with heating or cooling requirements that are sufficiently similar so that desired conditions can be maintained throughout using a single controlling device.

#### NEW SECTION

##### **WAC 51-11C-30000 Chapter 3 [CE]—General requirements.**

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

##### **WAC 51-11C-30100 Section C301—Climate zones.**

**C301.1 General.** Climate zones from Table C301.1 shall be used in determining the applicable requirements from Chapter 4.

**C301.2 Warm humid counties.** Warm humid counties are identified in Table C301.1 by an asterisk.

**C301.3 International climate zones.** The climate zone for any location outside the United States shall be determined by applying Table C301.3(1) and then Table C301.3(2).

**Table C301.1  
Climate Zones, Moisture Regimes, and Warm-Humid  
Designations by State and County**

Key: A - Moist, B - Dry, C - Marine. Absence of moisture designation indicates moisture regime is irrelevant. Asterisk (\*) indicates a warm-humid location.

**WASHINGTON**

5B Adams	4C Grays Harbor	4C Pierce
5B Asotin	4C Island	4C San Juan
5B Benton	4C Jefferson	4C Skagit
5B Chelan	4C King	5B Skamania
4C Clallam	4C Kitsap	4C Snohomish
4C Clark	5B Kittitas	5B Spokane
5B Columbia	5B Klickitat	6B Stevens
4C Cowlitz	4C Lewis	4C Thurston
5B Douglas	5B Lincoln	4C Wahkiakum
6B Ferry	4C Mason	5B Walla Walla
5B Franklin	6B Okanogan	4C Whitcom
5B Garfield	4C Pacific	5B Whitman
5B Grant	6B Pend Oreille	5B Yakima

NEW SECTION

**WAC 51-11C-30200 Section C302—Design conditions.**

**C302.1 Interior design conditions.** The interior design temperatures used for heating and cooling load calculations shall be a maximum of 72°F (22°C) for heating and minimum of 75°F (24°C) for cooling.

**302.2 Exterior design conditions.** The heating or cooling outdoor design temperatures shall be selected from Appendix C.

NEW SECTION

**WAC 51-11C-30300 Section C303—Materials, systems and equipment.**

NEW SECTION

**WAC 51-11C-30310 Section 303.1—Identification.**

**C303.1 Identification.** Materials, systems and equipment shall be identified in a manner that will allow a determination of compliance with the applicable provisions of this code.

**C303.1.1 Building thermal envelope insulation.** An *R*-value identification mark shall be applied by the manufacturer to each piece of *building thermal envelope* insulation 12 inches (305 mm) or greater in width. Alternately, the insulation installers shall provide a certification listing the type, manufacturer and *R*-value of insulation installed in each element of the *building thermal envelope*. For blown or sprayed insulation (fiberglass and cellulose), the initial installed thickness, settled thickness, settled *R*-value, installed density, coverage area and number of bags installed shall be *listed* on

the certification. For sprayed polyurethane foam (SPF) insulation, the installed thickness of the areas covered and *R*-value of installed thickness shall be *listed* on the certification. The insulation installer shall sign, date and post the certification in a conspicuous location on the job site.

**C303.1.1.1 Blown or sprayed roof/ceiling insulation.** The thickness of blown-in or sprayed roof/ceiling insulation (fiberglass or cellulose) shall be written in inches (mm) on markers that are installed at least one for every 300 square feet (28 m<sup>2</sup>) throughout the attic space. The markers shall be affixed to the trusses or joists and marked with the minimum initial installed thickness with numbers a minimum of 1 inch (25 mm) in height. Each marker shall face the attic access opening. Spray polyurethane foam thickness and installed *R*-value shall be *listed* on certification provided by the insulation installer.

**C303.1.2 Insulation mark installation.** Insulating materials shall be installed such that the manufacturer's *R*-value mark is readily observable upon inspection.

**C303.1.3 Fenestration product rating.** *U*-factors of fenestration products (windows, doors and skylights) shall be determined in accordance with NFRC 100 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled *U*-factor shall be assigned a default *U*-factor from Table C303.1.3(1), C303.1.3(2) or C303.1.3(4). The solar heat gain coefficient (SHGC) and *visible transmittance* (VT) of glazed fenestration products (windows, glazed doors and skylights) shall be determined in accordance with NFRC 200 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled SHGC or VT shall be assigned a default SHGC or VT from Table C303.1.3(3).

EXCEPTION: Units without NFRC ratings produced by a small business may be assigned default *U*-factors from Table C303.1.3(5) for vertical fenestration.

**C303.1.4 Insulation product rating.** The thermal resistance (*R*-value) of insulation shall be determined in accordance with the U.S. Federal Trade Commission *R*-value rule (C.F.R. Title 16, Part 460) in units of h x ft<sup>2</sup> x °F/Btu at a mean temperature of 75°F (24°C).

NEW SECTION

**WAC 51-11C-303131 Table C303.1.3(1)—Default glazed fenestration *U*-factor.**

**Table C303.1.3(1)  
Default Glazed Fenestration *U*-Factor**

FRAME TYPE	SINGLE PANE	DOUBLE PANE	SKY-LIGHT
Metal	1.20	0.80	See Table C303.1.3(4)
Metal with Thermal Break	1.10	0.65	
Nonmetal or Metal Clad	0.95	0.55	

FRAME TYPE	SINGLE PANE	DOUBLE PANE	SKY-LIGHT
Glazed Block	0.60		

NEW SECTION

**WAC 51-11C-303132 Table C303.1.3(2)—Default door *U*-factors.**

**Table C303.1.3(2)  
Default Door *U*-Factors  
See Appendix A, Section A107**

NEW SECTION

**WAC 51-11C-303133 Table C303.1.3(3)—Default glazed fenestration SHGC and VT.**

**Table C303.1.3(3)  
Default Glazed Fenestration SHGC and VT**

	SINGLE GLAZED		DOUBLE GLAZED		GLAZE BLOCK
	Clear	Tinted	Clear	Tinted	
SHGC	0.40	0.40	0.40	0.40	0.40
VT	0.6	0.3	0.6	0.3	0.6

NEW SECTION

**WAC 51-11C-303134 Table C303.1.3(4)—Default *U*-factors for skylights.**

**Table R303.1.3(4)  
Default *U*-Factors for Skylights**

Fenestration Type	Frame Type			
	Aluminum Without Thermal Break	Aluminum With Thermal Break	Reinforced Vinyl/Aluminum-Clad Wood or Vinyl	Wood or Vinyl-Clad Wood/Vinyl Without Reinforcing
Single Glazing				
glass	U-1.58	U-1.51	U-1.40	U-1.18
acrylic/polycarb	U-1.52	U-1.45	U-1.34	U-1.11
Double Glazing				
air	U-1.05	U-0.89	U-0.84	U-0.67
argon	U-1.02	U-0.86	U-0.80	U-0.64
Double Glazing, <i>e</i> = 0.20				
air	U-0.96	U-0.80	U-0.75	U-0.59
argon	U-0.91	U-0.75	U-0.70	U-0.54
Double Glazing, <i>e</i> = 0.10				
air	U-0.94	U-0.79	U-0.74	U-0.58
argon	U-0.89	U-0.73	U-0.68	U-0.52
Double Glazing, <i>e</i> = 0.05				
air	U-0.93	U-0.78	U-0.73	U-0.56
argon	U-0.87	U-0.71	U-0.66	U-0.50
Triple Glazing				
air	U-0.90	U-0.70	U-0.67	U-0.51
argon	U-0.87	U-0.69	U-0.64	U-0.48
Triple Glazing, <i>e</i> = 0.20				
air	U-0.86	U-0.68	U-0.63	U-0.47
argon	U-0.82	U-0.63	U-0.59	U-0.43
Triple Glazing, <i>e</i> = 0.20 on 2 surfaces				
air	U-0.82	U-0.64	U-0.60	U-0.44
argon	U-0.79	U-0.60	U-0.56	U-0.40
Triple Glazing, <i>e</i> = 0.10 on 2 surfaces				
air	U-0.81	U-0.62	U-0.58	U-0.42
argon	U-0.77	U-0.58	U-0.54	U-0.38

Fenestration Type	Frame Type			
	Aluminum Without Thermal Break	Aluminum With Thermal Break	Reinforced Vinyl/Aluminum-Clad Wood or Vinyl	Wood or Vinyl-Clad Wood/Vinyl Without Reinforcing
Quadruple Glazing, $e = 0.10$ on 2 surfaces				
air	U-0.78	U-0.59	U-0.55	U-0.39
argon	U-0.74	U-0.56	U-0.52	U-0.36
krypton	U-0.70	U-0.52	U-0.48	U-0.32

<sup>1</sup> U-factors are applicable to both glass and plastic, flat and domed units, all spacers and gaps.

<sup>2</sup> Emissivities shall be less than or equal to the value specified.

<sup>3</sup> Gap fill shall be assumed to be air unless there is a minimum of 90 percent argon or krypton.

<sup>4</sup> Aluminum frame with thermal break is as defined in footnote 1 to Table R303.1.3(1).

**NEW SECTION**

**WAC 51-11C-303135 Table C303.1.3(5)—Small business compliance default table.**

**Table C303.1.3(5)  
Small Business Compliance Table  
Default U-Factors for Vertical Glazing**

Vertical Glazing Description				Frame Type		
Panes	Low-e <sup>1</sup>	Spacer	Fill	Any Frame	Aluminum Thermal Break <sup>2</sup>	Wood/Vinyl/Fiberglass
Double <sup>3</sup>	A	Any	Argon	0.48	0.41	0.32
	B	Any	Argon	0.46	0.39	0.30
	C	Any	Argon	0.44	0.37	0.28
	C	High Performance	Argon	0.42	0.35	Deemed to comply <sup>5</sup>
Triple <sup>4</sup>	A	Any	Air	0.50	0.44	0.26
	B	Any	Air	0.45	0.39	0.22
	C	Any	Air	0.41	0.34	0.20
	Any double low-e	Any	Air	0.35	0.32	0.18

<sup>1</sup> Low-eA (emissivity) shall be 0.24 to 0.16.

Low-eB (emissivity) shall be 0.15 to 0.08.

Low-eC (emissivity) shall be 0.07 or less.

<sup>2</sup> Aluminum Thermal Break = An aluminum thermal break framed window shall incorporate the following minimum design characteristics:

a) The thermal conductivity of the thermal break material shall be not more than 3.6 Btu-in/h/ft<sup>2</sup>/°F;

b) The thermal break material must produce a gap in the frame material of not less than 0.210 inches; and

c) All metal framing members of the products exposed to interior and exterior air shall incorporate a thermal break meeting the criteria in a) and b) above.

<sup>3</sup> A minimum air space of 0.375 inches between panes of glass is required for double glazing.

<sup>4</sup> A minimum air space of 0.25 inches between panes of glass is required for triple glazing.

<sup>5</sup> Deemed to comply glazing shall not be used for performance compliance.

**C303.2 Installation.** All materials, systems and equipment shall be installed in accordance with the manufacturer's installation instructions and the *International Building Code*.

**C303.2.1 Protection of exposed foundation insulation.** Insulation applied to the exterior of basement walls, crawl-space walls and the perimeter of slab-on-grade floors shall have a rigid, opaque and weather-resistant protective covering to prevent the degradation of the insulation's thermal performance. The protective covering shall cover the exposed exterior insulation and extend a minimum of 6 inches (153 mm) below grade.

**NEW SECTION**

**WAC 51-11C-30330 Section C303.3—Maintenance information.**

**C303.3 Maintenance information.** Maintenance instructions shall be furnished for equipment and systems that

**NEW SECTION**

**WAC 51-11C-30320 Section C303.2—Installation.**

require preventive maintenance. Required regular maintenance actions shall be clearly stated and incorporated on a readily accessible label. The label shall include the title or publication number for the operation and maintenance manual for that particular model and type of product.

NEW SECTION

**WAC 51-11C-40000 Chapter 4 [CE]—Commercial energy efficiency.**

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11C-40100 Section C401—General.**

**C401.1 Scope.** The requirements contained in this chapter are applicable to commercial buildings, or portions of commercial buildings.

**C401.2 Application.** Commercial buildings shall comply with one of the following:

1. The requirements of Sections C402, C403, C404, C405, C408 and C409. In addition, commercial buildings shall comply with either Section C406.2, C406.3, C406.4, or C406.5.
2. The requirements of Section C407, C408, C402.4, C403.2, C404, C405.2, C405.3, C405.4, C405.6 and C405.7. The building energy consumption shall be equal to or less than 90 percent of the standard reference design building.

**C401.2.1 Application to existing buildings.** Additions, alterations and repairs to existing buildings shall comply with Sections C402, C403, C404, C405, C408 and C409.

NEW SECTION

**WAC 51-11C-40200 Section C402—Building envelope requirements.**

NEW SECTION

**WAC 51-11C-40210 Section C402.1—General (Prescriptive).**

NEW SECTION

**WAC 51-11C-402121 Table C402.1.2—Opaque thermal envelope assembly requirements.**

**Option 1 for Section 51-11C-402121:**

**Table C402.1.2  
Opaque Thermal Envelope Assembly Requirements<sup>a</sup>**

CLIMATE ZONE	5 AND MARINE 4		6	
	All Other	Group R	All Other	Group R
<b>Roofs</b>				
Insulation entirely above deck	U-0.034	U-0.031	U-0.032	U-0.031
Metal buildings	U-0.031	U-0.031	U-0.029	U-0.031

**C402.1 General (Prescriptive).** The building thermal envelope shall comply with Section C402.1.1. Section C402.1.2 or Section C402.1.3 shall be permitted as an alternative to the *R*-values specified in Section C402.1.1. Walk-in coolers and walk-in freezers shall comply with C402.5. Refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with C402.6.

EXCEPTION: Unstaffed equipment shelters or cabinets used solely for personal wireless service facilities.

NEW SECTION

**WAC 51-11C-40211 Section C402.1.1—Insulation and fenestration criteria.**

**C402.1.1 Insulation and fenestration criteria.** The *building thermal envelope* shall meet the requirements of Tables C402.2 and C402.3 based on the climate zone specified in Chapter 3. Commercial buildings or portions of commercial buildings enclosing Group R occupancies shall use the *R*-values from the "Group R" column of Table C402.2. Commercial buildings or portions of commercial buildings enclosing occupancies other than Group R shall use the *R*-values from the "All other" column of Table C402.2.

NEW SECTION

**WAC 51-11C-40212 Section C402.1.2—U-Factor alternative.**

**C402.1.2 U-factor alternative.** An assembly with a *U*-factor, *C*-factor, or *F*-factor equal or less than that specified in Table C402.1.2 shall be permitted as an alternative to the *R*-value in Table C402.2. Commercial buildings or portions of commercial buildings enclosing Group R occupancies shall use the *U*-factor, *C*-factor, or *F*-factor from the "Group R" column of Table C402.1.2. Commercial buildings or portions of commercial buildings enclosing occupancies other than Group R shall use the *U*-factor, *C*-factor or *F*-factor from the "All other" column of Table C402.1.2. The *U*-factors for typical construction assemblies are included in Appendix A. These values shall be used for all calculations. Where proposed construction assemblies are not represented in Appendix A, values shall be calculated in accordance with the ASHRAE *Handbook of Fundamentals* using the framing factors listed in Appendix A where applicable and shall include the thermal bridging effects of framing materials.



CLIMATE ZONE	5 AND MARINE 4		6	
	All Other	Group R	All Other	Group R
Attic and other	U-0.021	U-0.021	U-0.021	U-0.021
<b>Walls, Above Grade</b>				
Mass	U-0.078	U-0.078	U-0.078	U-0.071
Metal building	U-0.052	U-0.052	U-0.052	U-0.044
Steel framed	U-0.055	U-0.055	U-0.049	U-0.044
Wood framed and other	U-0.054	U-0.054	U-0.051	U-0.044
<b>Walls, Below Grade</b>				
Below-grade wall <sup>b</sup>	Same as above grade	Same as above grade	Same as above grade	Same as above grade
<b>Floors</b>				
Mass	U-0.031	U-0.031	U-0.031	U-0.031
Joist/framing	U-0.029	U-0.029	U-0.029	U-0.029
<b>Slab-on-Grade Floors</b>				
Unheated slabs	F-0.528	F-0.510	F-0.434	F-0.424
Heated slabs <sup>c</sup>	F-0.55	F-0.55	F-0.55	F-0.55

<sup>a</sup> Use of opaque assembly *U*-factors, *C*-factors, and *F*-factors from Appendix A is required unless otherwise allowed by Section C402.1.2.

<sup>b</sup> Where heated slabs are below grade, below-grade walls shall comply with the *F*-factor requirements for heated slabs.

<sup>c</sup> Heated slab *F*-factors shall be determined specifically for heated slabs. Unheated slab factors shall not be used.

### Option 2 for Section 51-11C-402121:

**Table C402.1.2**  
**Opaque Thermal Envelope Assembly Requirements<sup>a</sup>**

CLIMATE ZONE	5 AND MARINE 4		6	
	All Other	Group R	All Other	Group R
<b>Roofs</b>				
Insulation entirely above deck	U-0.034	U-0.031	U-0.032	U-0.031
Metal buildings	U-0.031	U-0.031	U-0.029	U-0.031
Attic and other	U-0.021	U-0.021	U-0.021	U-0.021
<b>Walls, Above Grade</b>				
Mass	U-0.104 <sup>d</sup>	U-0.078	U-0.078	U-0.071
Metal building	U-0.052	U-0.052	U-0.052	U-0.044
Steel framed	U-0.055	U-0.055	U-0.049	U-0.044
Wood framed and other	U-0.054	U-0.054	U-0.051	U-0.044
<b>Walls, Below Grade</b>				
Below-grade wall <sup>b</sup>	Same as above grade	Same as above grade	Same as above grade	Same as above grade
<b>Floors</b>				
Mass	U-0.031	U-0.031	U-0.031	U-0.031
Joist/framing	U-0.029	U-0.029	U-0.029	U-0.029
<b>Slab-on-Grade Floors</b>				
Unheated slabs	F-0.528	F-0.510	F-0.434	F-0.424
Heated slabs <sup>c</sup>	F-0.55	F-0.55	F-0.55	F-0.55

<sup>a</sup> Use of opaque assembly *U*-factors, *C*-factors, and *F*-factors from Appendix A is required unless otherwise allowed by Section C402.1.2.

<sup>b</sup> Where heated slabs are below grade, below-grade walls shall comply with the *F*-factor requirements for heated slabs.

<sup>c</sup> Heated slab *F*-factors shall be determined specifically for heated slabs. Unheated slab factors shall not be used.

<sup>d</sup> Exception: Integral insulated concrete block walls complying with ASTM C90 with all cores filled and meeting both of the following:

- 1 At least 50 percent of cores must be filled with vermiculite or equivalent fill insulation; and
- 2 The structure encloses one of the following uses: Warehouse (storage and retail), gymnasium, auditorium, church chapel, arena, kennel, manufacturing plant, indoor swimming pool, pump station, water and waste water treatment facility, storage facility, storage area, motor vehicle service facility.

NEW SECTION

**WAC 51-11C-40213 Section C402.1.3—Component performance option.**

**C402.1.3 Component performance building envelope option.**

**C402.1.3.1 General.** Buildings or structures whose design heat loss rate ( $UA_p$ ) and solar heat gain coefficient rate ( $SHGC * A_p$ ) are less than or equal to the target heat loss rate ( $UA_t$ ) and solar heat gain coefficient rate ( $SHGC * A_t$ ) shall be considered in compliance with this section. The stated  $U$ -factor,  $F$ -factor or allowable area of any component assembly, listed in Table C402.1.2 and Table C402.3, such as roof/ceiling, opaque wall, opaque door, fenestration, floor over conditioned space, slab-on-grade floor, radiant floor or opaque floor may be increased and the  $U$ -factor or  $F$ -factor for other components decreased, provided that the total heat gain or loss for the entire building envelope does not exceed the total resulting from compliance to the  $U$ -factors,  $F$ -factors or allowable areas specified in this section. Compliance shall be calculated in total for the building envelope for nonresidential spaces and for residential spaces.

**C402.1.3.2 Component  $U$ -factors.** The  $U$ -factors for typical construction assemblies are included in Chapter 3 and Appendix A. These values shall be used for all calculations. Where proposed construction assemblies are not represented in Chapter 3 or Appendix A, values shall be calculated in accordance with the 2009 ASHRAE Fundamentals Handbook, using the framing factors listed in Appendix A.

For envelope assemblies containing metal framing, the  $U$ -factor shall be determined by one of the following methods:

1. Results of laboratory measurements according to acceptable methods of test.
2. 2009 ASHRAE Fundamentals Handbook where the metal framing is bonded on one or both sides to a metal skin or covering.
3. The zone method as provided in 2009 ASHRAE Fundamentals Handbook.
4. Effective framing/cavity  $R$ -values as provided in Appendix A.  
When return air ceiling plenums are employed, the roof/ceiling assembly shall:
  - a. For thermal transmittance purposes, not include the ceiling proper nor the plenum space as part of the assembly; and
  - b. For gross area purposes, be based upon the interior face of the upper plenum surface.
5. Tables in ASHRAE 90.1-2007 Normative Appendix A.

**C402.1.3.3 UA calculations.** The target  $UA_t$  and the proposed  $UA_p$  shall be calculated using Equations C402-1 and C402-2 and the corresponding areas and  $U$ -factors from Table C402.1.2 and Table C402.3. For the target  $UA_t$  calculation, the skylights shall be located in roof/ceiling area up to the maximum skylight area per Section C402.3.1 and the remainder of the fenestration allowed per Section C402.3.1 shall be located in the wall area.

**C402.1.3.4 SHGC calculations.** Solar Heat Gain Coefficient Rate Calculations: Solar heat gain coefficient shall comply with Table C402.3. The target  $SHGCA_t$  and the proposed  $SHGCA_p$  shall be calculated using Equations C402-3 and C402-4 and the corresponding areas and SHGCs from Table C402.3.

NEW SECTION

**WAC 51-11C-402131 Equation C402-1—Target  $UA_t$ .**

**Equation C402-1  
Target  $UA_t$**

$$UA_t = U_{radt}A_{radt} + U_{mrt}A_{mrt} + U_{ort}A_{ort} + U_{mwt}A_{mwt} + U_{mbwt}A_{mbwt} + U_{mfwt}A_{mfwt} + U_{wt}A_{wt} + U_{fmt}A_{fmt} + U_{fjt}A_{fjt} + F_{st}P_{st} + F_{rst}P_{rst} + U_{dst}A_{dst} + U_{drt}A_{drt} + U_{vgt}A_{vgt} + U_{vgmt}A_{vgmt} + U_{vgmot}A_{vgmot} + U_{vgdt}A_{vgdt} + U_{ogort}A_{ogort}$$

$U_{at}$  = The target combined specific heat transfer of the gross roof/ceiling assembly, exterior wall and floor area.

Where:

- $U_{radt}$  = The thermal transmittance value for roofs with the insulation entirely above deck found in Table C402.1.2.
- $U_{mrt}$  = The thermal transmittance value for metal building roofs found in Table C402.1.2.
- $U_{ort}$  = The thermal transmittance value for attic and other roofs found in Table C402.1.2.
- $U_{mwt}$  = The thermal transmittance value for opaque mass walls found in Table C402.1.2.
- $U_{mbwt}$  = The thermal transmittance value for opaque metal building walls found in Table C402.1.2.
- $U_{mfwt}$  = The thermal transmittance value for opaque steel-framed walls found in Table C402.1.2.
- $U_{wt}$  = The thermal transmittance value for opaque wood framed and other walls found in Table C402.1.2.
- $U_{fmt}$  = The thermal transmittance value for mass floors over unconditioned space found in Table C402.1.2.
- $U_{fjt}$  = The thermal transmittance value for joist floors over unconditioned space found in Table C402.1.2.
- $F_{st}$  = The F-factor for slab-on-grade floors found in Table C402.1.2.

- $F_{rst}$  = The F-factor for radiant slab floors found in Table C402.1.2.
  - $U_{dst}$  = The thermal transmittance value for opaque swinging doors found in Table C402.2.
  - $U_{drt}$  = The thermal transmittance value for opaque roll-up or sliding doors found in Table C402.2.
  - $U_{vgt}$  = The thermal transmittance value for vertical fenestration with nonmetal framing found in Table C402.3 which corresponds to the proposed total fenestration area as a percent of gross exterior wall area.
  - $U_{vgmt}$  = The thermal transmittance value for vertical fenestration with fixed metal framing found in Table C402.3 which corresponds to the proposed total fenestration area as a percent of gross exterior wall area.
  - $U_{vgmot}$  = The thermal transmittance value for vertical fenestration with operable metal framing found in Table C402.3 which corresponds to the proposed total fenestration area as a percent of gross exterior wall area.
  - $U_{vgdt}$  = The thermal transmittance value for entrance doors found in Table C402.3 which corresponds to the proposed total fenestration area as a percent of gross exterior wall area.
  - $U_{ogort}$  = The thermal transmittance for skylights found in Table C402.3 which corresponds to the proposed total fenestration area as a percent of gross exterior wall area.
  - $A_{fimt}$  = The proposed mass floor over unconditioned space area,  $A_{fm}$ .
  - $A_{fjt}$  = The proposed joist floor over unconditioned space area,  $A_{fs}$ .
  - $P_{st}$  = The proposed linear feet of slab-on-grade floor perimeter,  $P_s$ .
  - $P_{rst}$  = The proposed linear feet of radiant slab floor perimeter,  $P_s$ .
  - $A_{dst}$  = The proposed opaque swinging door area,  $A_{ds}$ .
  - $A_{drt}$  = The proposed opaque roll-up or sliding door area,  $A_{dr}$ .
- and

If the total amount of fenestration area as a percent of gross exterior wall area does not exceed the maximum allowed in Section C402.3.1:

- $A_{radt}$  = The proposed roof area with insulation entirely above the deck,  $A_{rad}$ .
  - $A_{mrt}$  = The proposed roof area for metal buildings,  $A_{mr}$ .
  - $A_{ort}$  = The proposed attic and other roof area,  $A_{or}$ .
  - $A_{mwt}$  = The proposed opaque above grade wall area,  $A_w$ .
  - $A_{mbwt}$  = The proposed opaque above grade wall area,  $A_w$ .
  - $A_{wt}$  = The proposed opaque above grade wall area,  $A_w$ .
  - $A_{vgt}$  = The proposed vertical fenestration area with nonmetal framing,  $A_{vg}$ .
  - $A_{vgmt}$  = The proposed vertical fenestration area with fixed metal framing,  $A_{vgm}$ .
  - $A_{vgmot}$  = The proposed vertical fenestration area with operable metal framing,  $A_{vgm}$ .
  - $A_{vgdt}$  = The proposed entrance door area,  $A_{vgd}$ .
  - $A_{ogort}$  = The proposed skylight area,  $A_{ogor}$ .
- or

If the total fenestration area as a percent of gross exterior wall area exceeds the maximum allowed in Section C402.3.1, the area of each fenestration element shall be reduced in the base envelope design by the same percentage and the net area of each wall type adjusted proportionately by the same percentage so that the total skylight and vertical fenestration area is exactly equal to the allowed percentage per Section C402.3.1 of the gross wall area.

**NEW SECTION**

**WAC 51-11C-402132 Equation C402-2—Proposed  $UA_p$ .**

**Equation C402-2  
Proposed  $UA_p$**

$$UA_p = U_{rad}A_{rad} + U_{mr}A_{mr} + U_{ra}A_{ra} + U_{mw}A_{mw} + U_{mbw}A_{mbw} + U_{sifw}A_{sifw} + U_{wifow}A_{wifow} + U_{fm}A_{fm} + U_{fj}A_{fj} + F_sP_s + F_{sr}P_{sr} + U_{ds}A_{ds} + U_{dr}A_{dr} + U_{vg}A_{vg} + U_{vgmf}A_{vgmf} + U_{vgmo}A_{vgmo} + U_{vgd}A_{vgd} + U_{og}A_{og}$$

Where:

$UA_p$	=	The combined proposed specific heat transfer of the gross exterior wall, floor and roof/ceiling assembly area.
$U_{rad}$	=	The thermal transmittance of the roof area where the insulation is entirely above the roof deck.
$A_{rad}$	=	Opaque roof area where the insulation is entirely above roof deck.
$U_{mr}$	=	The thermal transmittance of the metal building roof area.
$A_{mr}$	=	Opaque metal building roof area.
$U_{ra}$	=	The thermal transmittance of the roof over attic and other roof area.
$A_{ra}$	=	Opaque roof over attic and other roof area.
$U_{mw}$	=	The thermal transmittance of the opaque mass wall area.
$A_{mw}$	=	Opaque mass wall area (not including opaque doors).
$U_{mbw}$	=	The thermal transmittance of the opaque metal building wall area.
$A_{mbw}$	=	Opaque metal building wall area (not including opaque doors).
$U_{sfbw}$	=	The thermal transmittance of the opaque steel framed wall area.
$A_{sfbw}$	=	Opaque steel framed wall area (not including opaque doors).
$U_{wfbw}$	=	The thermal transmittance of the opaque wood framed and other wall area.
$A_{wfbw}$	=	Opaque wood framed and other wall area (not including opaque doors).
$U_{fm}$	=	The thermal transmittance of the mass floor over unconditioned space area.
$A_{fm}$	=	Mass floor area over unconditioned space.
$U_{fj}$	=	The thermal transmittance of the joist floor over unconditioned space area.
$A_{fj}$	=	Joist floor area over unconditioned space.
$F_s$	=	Slab-on-grade floor component F-factor.
$P_s$	=	Linear feet of slab-on-grade floor perimeter.
$F_{sr}$	=	Radiant floor component F-factor.
$P_{sr}$	=	Linear feet of radiant floor perimeter.
$U_{ds}$	=	The thermal transmittance value of the opaque swinging door area.
$A_{ds}$	=	Opaque swinging door area.
$U_{dr}$	=	The thermal transmittance value of the opaque roll-up or sliding door area.
$A_{dr}$	=	Opaque roll-up or sliding door area.
$U_{vg}$	=	The thermal transmittance of the vertical fenestration area with nonmetal framing.
$A_{vg}$	=	Vertical fenestration area with nonmetal framing.
$U_{vgmf}$	=	The thermal transmittance of the vertical fenestration area with fixed metal framing.
$A_{vgmf}$	=	Vertical fenestration area with fixed metal framing.
$U_{vgmo}$	=	The thermal transmittance of the vertical fenestration area with operable metal framing.
$A_{vgmo}$	=	Vertical fenestration area with operable metal framing.
$U_{vgd}$	=	The thermal transmittance of the vertical fenestration area for entrance doors.
$A_{vgd}$	=	Vertical fenestration area for entrance doors.
$U_{og}$	=	The thermal transmittance for the skylights.
$A_{og}$	=	Skylight area.

NOTE: Where more than one type of wall, window, roof/ceiling, door and skylight is used, the U and A terms for those items shall be expanded into subelements as:

$$U_{mw1}A_{mw1} + U_{mw2}A_{mw2} + U_{sfbw1}A_{sfbw1} + \dots \text{etc.}$$

NEW SECTION

**WAC 51-11C-402133 Equation C402-3—Target SHGCA<sub>t</sub>.**

**Equation C402-3  
Target SHGCA<sub>t</sub>**

$$SHGCA_t = SHGC_t (A_{ogort} + A_{vgt} + A_{vgmt} + A_{vgmot} + A_{vgdt})$$

Where:

- SHGCA<sub>t</sub> = The target combined specific heat gain of the target fenestration area.
- SHGC<sub>t</sub> = The solar heat gain coefficient for fenestration found in Table C402.3 which corresponds to the proposed total fenestration area as a percent of gross exterior wall area, and A<sub>ogort</sub>, A<sub>vgt</sub>, A<sub>vgmt</sub>, A<sub>vgmot</sub> and A<sub>vgdt</sub> are defined under Equation C402-1.

NEW SECTION

**WAC 51-11C-402134 Equation C402-4—Proposed SHGCA<sub>p</sub>.**

**Equation C402-4  
Proposed SHGCA<sub>p</sub>**

$$SHGCA_p = SHGC_{og}A_{og} + SHGC_{vg}A_{vg}$$

Where:

- SHGCA<sub>t</sub> = The combined proposed specific heat gain of the proposed fenestration area.
- SHGC<sub>og</sub> = The solar heat gain coefficient of the skylights.
- A<sub>og</sub> = The skylight area.
- SHGC<sub>vg</sub> = The solar heat gain coefficient of the vertical fenestration.
- A<sub>vg</sub> = The vertical fenestration area.

NEW SECTION

**WAC 51-11C-40214 Section C402.1.4—Semi-heated spaces.**

**C402.1.4 Semi-heated spaces.** All spaces shall comply with the requirements in Section C402 unless they meet the definition for semi-heated spaces. For semi-heated spaces, the building envelope shall comply with the same requirements as that for conditioned spaces in Section C402; however, for semi-heated spaces heated by other than electric resistance heating equipment, wall insulation is not required for those walls that separate semi-heated spaces from the exterior provided that the space meets all the requirements of semi-heated space. Semi-heated spaces shall be calculated separately from other conditioned spaces for compliance purposes. Building envelope assemblies separating conditioned space from semi-heated space shall comply with exterior envelope insulation requirements. When choosing the unin-

ulated wall option, the wall shall not be included in Component Performance Building Envelope Option calculation.

NEW SECTION

**WAC 51-11C-40220 Section C402.2—Specific insulation requirements.**

**C402.2 Specific insulation requirements (Prescriptive).** Opaque assemblies shall comply with Table C402.2. Where two or more layers of continuous insulation board are used in a construction assembly, the continuous insulation boards shall be installed in accordance with Section C303.2. If the continuous insulation board manufacturer's installation instructions do not address installation of two or more layers, the edge joints between each layer of continuous insulation boards shall be staggered.

NEW SECTION

**WAC 51-11C-402200 Table C402.2—Opaque thermal envelope requirements.**

**Option 1 for Section 51-11C-402200:  
Table C402.2  
Opaque Thermal Envelope Requirements<sup>a, f</sup>**

CLIMATE ZONE	5 AND MARINE 4		6	
	All Other	Group R	All Other	Group R
	<b>Roofs</b>			

CLIMATE ZONE	5 AND MARINE 4		6	
	All Other	Group R	All Other	Group R
Insulation entirely above deck	R-30ci	R-38ci	R-30ci	R-38ci
Metal buildings (with R-5 thermal blocks) <sup>a, b</sup>	R-25 + R-11 LS	R-25 + R-11 LS	R-25 + R-11 LS	R-30 + R-11 LS
Attic and other	R-49	R-49	R-49	R-49
<b>Walls, Above Grade</b>				
Mass	R-11.4ci	R-13.3ci	R-13.3ci	R-15.2ci
Metal building	R-13 + R-13ci	R-13 + R-13ci	R-13 + R-13ci	R-19 + R-16ci
Steel framed	R-13 + R-10ci	R-19 + R-8.5ci	R-13 + R-12.5ci	R-19 + R-14ci
Wood framed and other	R-21 int	R-21 int	R-13 + R-7.5ci or R-20 + R-3.8ci	R-21 + R-5ci
<b>Walls, Below Grade</b>				
Below-grade wall <sup>d</sup>	Same as above grade	Same as above grade	Same as above grade	Same as above grade
<b>Floors</b>				
Mass	R-30ci	R-30ci	R-30ci	R-30ci
Joist/framing	R-30 <sup>e</sup>	R-30 <sup>e</sup>	R-38 <sup>e</sup>	R-38 <sup>e</sup>
<b>Slab-on-Grade Floors</b>				
Unheated slabs	R-15 for 24" below	R-20 for 24" below	R-20 for 48" below	R-25 for 48" below
Heated slabs <sup>d</sup>	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab
<b>Opaque Doors</b>				
Swinging	U-0.37	U-0.37	U-0.37	U-0.37
Roll-up or sliding	R-4.75	R-4.75	R-4.75	R-4.75

For SI: 1 inch = 25.4 mm. ci = Continuous insulation. NR = No requirement.

LS = Liner System—A continuous membrane installed below the purlins and uninterrupted by framing members. Uncompressed, unfaced insulation rests on top of the membrane between the purlins.

<sup>a</sup> Assembly descriptions can be found in Chapter 2 and Appendix A.

<sup>b</sup> Where using R-value compliance method, a thermal spacer block shall be provided, otherwise use the U-factor compliance method in Table C402.1.2.

<sup>c</sup> R-5.7ci is allowed to be substituted with concrete block walls complying with ASTM C 90, ungrouted or partially grouted at 32 inches or less on center vertically and 48 inches or less on center horizontally, with ungrouted cores filled with materials having a maximum thermal conductivity of 0.44 Btu-in/h-ft<sup>2</sup> °F.

<sup>d</sup> Where heated slabs are below grade, below-grade walls shall comply with the exterior insulation requirements for heated slabs.

<sup>e</sup> Steel floor joist systems shall be insulated to R-38 + R-10ci.

<sup>f</sup> For roof, wall or floor assemblies where the proposed assembly would not be continuous insulation, two alternate nominal R-value compliance options for assemblies with isolated metal penetrations of otherwise continuous insulation are:

Assemblies with true continuous insulation (criteria in table)	Alternate option for assemblies with metal penetrations, but less than 0.0004 (less than 0.04%)	Alternate option for assemblies with metal penetrations, but less than 0.0008 (less than 0.08%)
R-11.4ci	R-14.3 w/ < 0.0004 metal penetrations	R-17.1 w/ < 0.0008 metal penetrations
R-13.3ci	R-16.6 w/ < 0.0004 metal penetrations	R-20.0 w/ < 0.0008 metal penetrations
R-15.2ci	R-19.0 w/ < 0.0004 metal penetrations	R-22.8 w/ < 0.0008 metal penetrations
R-30ci	R-38 w/ < 0.0004 metal penetrations	R-45 w/ < 0.0008 metal penetrations
R-38ci	R-48 w/ < 0.0004 metal penetrations	R-57 w/ < 0.0008 metal penetrations
R-13 + R7.5ci	R-13 + R9.4 w/ < 0.0004 metal penetrations	R-13 + R11.3 w/ < 0.0008 metal penetrations
R-13 + R10ci	R-13 + R12.5 w/ < 0.0004 metal penetrations	R-13 + R15 w/ < 0.0008 metal penetrations
R-13 + R12.5ci	R-13 + R15.6 w/ < 0.0004 metal penetrations	R-13 + R18.8 w/ < 0.0008 metal penetrations

R-13 + R13ci	R-13 + R16.3 w/ < 0.0004 metal penetrations	R-13 + 20 w/ < 0.0008 metal penetrations
R-19 + R8.5ci	R-19 + R10.6 w/ < 0.0004 metal penetrations	R-19 + R12.8 w/ < 0.0008 metal penetrations
R-19 + R14ci	R-19 + R17.5 w/ < 0.0004 metal penetrations	R-19 + R21 w/ < 0.0008 metal penetrations
R-19 + R16ci	R-19 + R20 w/ < 0.0004 metal penetrations	R-19 + R24 w/ < 0.0008 metal penetrations
R-20 + R3.8ci	R-20 + R4.8 w/ < 0.0004 metal penetrations	R-20 + R5.7 w/ < 0.0008 metal penetrations
R-21 + R5ci	R-21 + R6.3 w/ < 0.0004 metal penetrations	R-21 + R7.5 w/ < 0.0008 metal penetrations

These alternate nominal R-value compliance options are allowed for projects complying with all of the following:

1. The ratio of the cross-sectional area, as measured in the plane of the surface, of metal penetrations of otherwise continuous insulation to the opaque surface area of the assembly is:
  - i. Less than 0.0004 (less than 0.04%).
  - ii. Equal to or greater than 0.0004 (less than 0.04%), but less than 0.0008 (less than 0.08%).
2. The metal penetrations of otherwise continuous insulation are isolated or discontinuous (e.g., brick ties or other discontinuous metal attachments, offset brackets supporting shelf angles that allow insulation to go between the shelf angle and the primary portions of the wall structure). No continuous metal elements (e.g., metal studs, z-girts, z-channels, shelf angles) penetrate the otherwise continuous portion of the insulation.
3. Building permit drawings shall contain details showing the locations and dimensions of all the metal penetrations (e.g., brick ties or other discontinuous metal attachments, offset brackets, etc.) of otherwise continuous insulation. In addition, calculations shall be provided showing the ratio of the cross-sectional area of metal penetrations of otherwise continuous insulation to the overall opaque wall area.

For other cases where the proposed assembly is not continuous insulation, see Section C402.1.2 for determination of U-factors for assemblies that include metal other than screws and nails.

**Option 2 for Section 51-11C-402200:**  
**Table C402.2**  
**Opaque Thermal Envelope Requirements<sup>a, f</sup>**

CLIMATE ZONE	5 AND MARINE 4		6	
	All Other	Group R	All Other	Group R
<b>Roofs</b>				
Insulation entirely above deck	R-30ci	R-38ci	R-30ci	R-38ci
Metal buildings (with R-5 thermal blocks) <sup>a, b</sup>	25 + R-11 LS	25 + R-11 LS	R-25 + R-11 LS	R-30 + R-11 LS
Attic and other	R-49	R-49	R-49	R-49
<b>Walls, Above Grade</b>				
Mass	R-9.5ci	R-13.3ci	R-11.4ci	R-15.2ci
Metal building	R-13 + R-13ci	R-13 + R-13ci	R-13 + R-13ci	R-19 + R-16ci
Steel framed	R-13 + R-10ci	R-19 + R-8.5ci	R-13 + R-12.5ci	R-19 + R-14ci
Wood framed and other	R-21 int	R-21 int	R-13 + R-7.5ci or R-20 + R-3.8ci	R-21 + R-5ci
<b>Walls, Below Grade</b>				
Below-grade wall <sup>d</sup>	Same as above grade	Same as above grade	Same as above grade	Same as above grade
<b>Floors</b>				
Mass	R-30ci	R-30ci	R-30ci	R-30ci
Joist/framing	R-30 <sup>e</sup>	R-30 <sup>e</sup>	R-38 <sup>e</sup>	R-38 <sup>e</sup>
<b>Slab-on-Grade Floors</b>				
Unheated slabs	R-15 for 24" below	R-20 for 24" below	R-20 for 48" below	R-25 for 48" below
Heated slabs <sup>d</sup>	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab	R-10 perimeter & under entire slab
<b>Opaque Doors</b>				
Swinging	U-0.37	U-0.37	U-0.37	U-0.37
Roll-up or sliding	R-4.75	R-4.75	R-4.75	R-4.75

For SI: 1 inch = 25.4 mm. ci = Continuous insulation. NR = No requirement.

LS = Liner system—A continuous membrane installed below the purlins and uninterrupted by framing members. Uncompressed, unfaced insulation rests on top of the membrane between the purlins.

<sup>g</sup> Assembly descriptions can be found in Chapter 2 and Appendix A.

<sup>h</sup> Where using *R*-value compliance method, a thermal spacer block shall be provided, otherwise use the *U*-factor compliance method in Table C402.1.2.

<sup>i</sup> R-5.7ci is allowed to be substituted with concrete block walls complying with ASTM C90, ungrouted or partially grouted at 32 inches or less on center vertically and 48 inches or less on center horizontally, with ungrouted cores filled with materials having a maximum thermal conductivity of 0.44 Btu-in/h-ft<sup>2</sup> °F.

<sup>j</sup> Where heated slabs are below grade, below-grade walls shall comply with the exterior insulation requirements for heated slabs.

<sup>k</sup> Steel floor joist systems shall be insulated to R-38 + R-10ci.

<sup>l</sup> For roof, wall or floor assemblies where the proposed assembly would not be continuous insulation, two alternate nominal *R*-value compliance options for assemblies with isolated metal penetrations of otherwise continuous insulation are:

Assemblies with true continuous insulation (criteria in table)	Alternate option for assemblies with metal penetrations, but less than 0.0004 (less than 0.04%)	Alternate option for assemblies with metal penetrations, but less than 0.0008 (less than 0.08%)
R-11.4ci	R-14.3 w/ < 0.0004 metal penetrations	R-17.1 w/ < 0.0008 metal penetrations
R-13.3ci	R-16.6 w/ < 0.0004 metal penetrations	R-20.0 w/ < 0.0008 metal penetrations
R-15.2ci	R-19.0 w/ < 0.0004 metal penetrations	R-22.8 w/ < 0.0008 metal penetrations
R-30ci	R-38 w/ < 0.0004 metal penetrations	R-45 w/ < 0.0008 metal penetrations
R-38ci	R-48 w/ < 0.0004 metal penetrations	R-57 w/ < 0.0008 metal penetrations
R-13 + R7.5ci	R-13 + R9.4 w/ < 0.0004 metal penetrations	R-13 + R11.3 w/ < 0.0008 metal penetrations
R-13 + R10ci	R-13 + R12.5 w/ < 0.0004 metal penetrations	R-13 + R15 w/ < 0.0008 metal penetrations
R-13 + R12.5ci	R-13 + R15.6 w/ < 0.0004 metal penetrations	R-13 + R18.8 w/ < 0.0008 metal penetrations
R-13 + R13ci	R-13 + R16.3 w/ < 0.0004 metal penetrations	R-13 + 20 w/ < 0.0008 metal penetrations
R-19 + R8.5ci	R-19 + R10.6 w/ < 0.0004 metal penetrations	R-19 + R12.8 w/ < 0.0008 metal penetrations
R-19 + R14ci	R-19 + R17.5 w/ < 0.0004 metal penetrations	R-19 + R21 w/ < 0.0008 metal penetrations
R-19 + R16ci	R-19 + R20 w/ < 0.0004 metal penetrations	R-19 + R24 w/ < 0.0008 metal penetrations
R-20 + R3.8ci	R-20 + R4.8 w/ < 0.0004 metal penetrations	R-20 + R5.7 w/ < 0.0008 metal penetrations
R-21 + R5ci	R-21 + R6.3 w/ < 0.0004 metal penetrations	R-21 + R7.5 w/ < 0.0008 metal penetrations

These alternate nominal *R*-value compliance options are allowed for projects complying with all of the following:

1. The ratio of the cross-sectional area, as measured in the plane of the surface, of metal penetrations of otherwise continuous insulation to the opaque surface area of the assembly is:
  - i. Less than 0.0004 (less than 0.04%).
  - ii. Equal to or greater than 0.0004 (less than 0.04%), but less than 0.0008 (less than 0.08%).
2. The metal penetrations of otherwise continuous insulation are isolated or discontinuous (e.g., brick ties or other discontinuous metal attachments, offset brackets supporting shelf angles that allow insulation to go between the shelf angle and the primary portions of the wall structure). No continuous metal elements (e.g., metal studs, z-girts, z-channels, shelf angles) penetrate the otherwise continuous portion of the insulation.
3. Building permit drawings shall contain details showing the locations and dimensions of all the metal penetrations (e.g., brick ties or other discontinuous metal attachments, offset brackets, etc.) of otherwise continuous insulation. In addition, calculations shall be provided showing the ratio of the cross-sectional area of metal penetrations of otherwise continuous insulation to the overall opaque wall area.

For other cases where the proposed assembly is not continuous insulation, see Section C402.1.2 for determination of *U*-factors for assemblies that include metal other than screws and nails.

**NEW SECTION**

**WAC 51-11C-40221 Section C402.2.1—Roof assembly.**

**C402.2.1 Roof assembly.** The minimum thermal resistance (*R*-value) of the insulating material installed either between the roof framing or continuously on the roof assembly shall be as specified in Table C402.2, based on construction materials used in the roof assembly. Skylight curbs shall be insulated to the level of roofs with insulation entirely above deck or R-5, whichever is less.

**EXCEPTIONS:**

1. Continuously insulated roof assemblies where the thickness of insulation varies 1 inch (25 mm) or less and where the area-weighted *U*-factor is equivalent to the same assembly with the *R*-value specified in Table C402.2.
2. Unit skylight curbs included as a component of an NFRC 100 rated assembly shall not be required to be insulated.

Insulation installed on a suspended ceiling with removable ceiling tiles shall not be considered part of the minimum thermal resistance of the roof insulation.

**C402.2.1.1 Roof solar reflectance and thermal emittance.**

Low-sloped roofs, with a slope less than 2 units vertical in 12 horizontal, directly above cooled *conditioned spaces* in Climate Zones 1, 2, and 3 shall comply with one or more of the options in Table C402.2.1.1.



- EXCEPTIONS: The following roofs and portions of roofs are exempt from the requirements in Table C402.2.1.1:
1. Portions of roofs that include or are covered by:
    - 1.1. Photovoltaic systems or components.
    - 1.2. Solar air or water heating systems or components.
    - 1.3. Roof gardens or landscaped roofs.
    - 1.4. Above-roof decks or walkways.
    - 1.5. Skylights.
    - 1.6. HVAC systems, components, and other opaque objects mounted above the roof.
  2. Portions of roofs shaded during the peak sun angle on the summer solstice by permanent features of the building, or by permanent features of adjacent buildings.
  3. Portions of roofs that are ballasted with a minimum stone ballast of 17 pounds per square foot (psf) (74 kg/m<sup>2</sup>) or 23 psf (117 kg/m<sup>2</sup>) pavers.
  4. Roofs where a minimum of 75 percent of the roof area meets a minimum of one of the exceptions above.

**NEW SECTION**

**WAC 51-11C-402211 Table C402.2.1.1—Reflectance and emittance options.**

**Table C402.2.1.1  
Reflectance and Emittance Options<sup>a</sup>**

Three-year aged solar reflectance <sup>b</sup> of 0.55 and three-year aged thermal emittance <sup>c</sup> of 0.75
Initial solar reflectance <sup>b</sup> of 0.70 and initial thermal emittance <sup>c</sup> of 0.75
Three-year-aged solar reflectance index <sup>d</sup> of 64 initial solar reflectance index <sup>d</sup> of 82

<sup>a</sup> The use of area-weighted averages to meet these requirements shall be permitted. Materials lacking initial tested values for either solar reflectance or thermal emittance, shall be assigned both an initial solar reflectance of 0.10 and an initial thermal emittance of 0.90. Materials lacking three-year aged tested values for either solar reflectance or thermal emittance shall be assigned both a three-year aged solar reflectance of 0.10 and a three-year aged thermal emittance of 0.90.

<sup>b</sup> Solar reflectance tested in accordance with ASTM C 1549, ASTM E 903 or ASTM E 1918.

<sup>c</sup> Thermal emittance tested in accordance with ASTM C 1371 or ASTM E 408.

<sup>d</sup> Solar reflectance index (SRI) shall be determined in accordance with ASTM E 1980 using a convection coefficient of 2.1 Btu/h x ft<sup>2</sup> x °F (12W/m<sup>2</sup> x K). Calculation of aged SRI shall be based on aged tested values of solar reflectance and thermal emittance. Calculation of initial SRI shall be based on initial tested values of solar reflectance and thermal emittance.

**NEW SECTION**

**WAC 51-11C-40222 Section C402.2.2—Classification of walls.**

**C402.2.2 Classification of walls.** Walls associated with the building envelope shall be classified in accordance with Section C202.

**NEW SECTION**

**WAC 51-11C-40223 Section C402.2.3—Above-grade walls.**

**C402.2.3 Thermal resistance of above-grade walls.** The minimum thermal resistance (*R*-value) of the insulating materials installed in the wall cavity between the framing members and continuously on the walls shall be as specified in Table C402.2, based on framing type and construction materials used in the wall assembly. The *R*-value of integral insulation installed in concrete masonry units (CMU) shall not be used in determining compliance with Table C402.2.

"Mass walls" shall include walls weighing not less than:

1. 35 psf (170 kg/m<sup>2</sup>) of wall surface area; or
2. 25 psf (120 kg/m<sup>2</sup>) of wall surface area if the material weight is not more than 120 pounds per cubic foot (pcf) (1,900 kg/m<sup>3</sup>).

**NEW SECTION**

**WAC 51-11C-40224 Section C402.2.4—Below-grade walls.**

**C402.2.4 Thermal resistance of below-grade walls.** The minimum thermal resistance (*R*-value) of the insulating material installed in, or continuously on, the below-grade walls shall be as specified in Table C402.2.

**NEW SECTION**

**WAC 51-11C-40225 Section C402.2.5—Floors over unconditioned space.**

**C402.2.5 Floors over outdoor air or unconditioned space.** The minimum thermal resistance (*R*-value) of the insulating material installed either between the floor framing or continuously on the floor assembly shall be as specified in Table C402.2, based on construction materials used in the floor assembly.

"Mass floors" shall include floors weighing not less than:

1. 35 psf (170 kg/m<sup>2</sup>) of floor surface area; or
2. 25 psf (120 kg/m<sup>2</sup>) of floor surface area if the material weight is not more than 12 pcf (1,900 kg/m<sup>3</sup>).

**NEW SECTION**

**WAC 51-11C-40226 Section C402.2.6—Slab on grade.**

**C402.2.6 Slabs on grade.** Where the slab on grade is in contact with the ground, the minimum thermal resistance (*R*-value) of the insulation around the perimeter of unheated or heated slab-on-grade floors shall be as specified in Table C402.2. The insulation shall be placed on the outside of the foundation or on the inside of the foundation wall. The insulation shall extend downward from the top of the slab for a minimum distance as shown in the table or to the top of the footing, whichever is less, or downward to at least the bottom of the slab and then horizontally to the interior or exterior for the total distance shown in the table. Insulation extending away from the building shall be protected by pavement or by a minimum of 10 inches (254 mm) of soil.

EXCEPTION: Where the slab-on-grade floor is greater than 24 inches (61 mm) below the finished exterior grade, perimeter insulation is not required.

NEW SECTION

**WAC 51-11C-40227 Section C402.2.7—Opaque doors.**

**C402.2.7 Opaque doors.** Opaque doors (doors having less than 50 percent glass area) shall meet the applicable requirements for doors as specified in Table C402.2 and be considered as part of the gross area of above-grade walls that are part of the building envelope.

NEW SECTION

**WAC 51-11C-40228 Section C402.2.8—Insulation of radiant heating systems.**

**C402.2.8 Insulation of radiant heating systems.** Radiant panels, and associated U-bends and headers, designed for sensible heating of an indoor space through heat transfer from the thermally effective panel surfaces to the occupants or indoor space by thermal radiation and natural convection and the bottom surfaces of floor structures incorporating radiant heating shall be insulated with a minimum of R-3.5 (0.62 m<sup>2</sup>/K × W).

NEW SECTION

**WAC 51-11C-40230 Section C402.3—Fenestration (Prescriptive).**

**C402.3 Fenestration (Prescriptive).** Fenestration shall comply with Table C402.3. Automatic daylighting controls specified by this section shall comply with Section C405.2.2.3.2.

NEW SECTION

**WAC 51-11C-402300 Table C402.3—Building envelope requirements—Fenestration.**

**Table C402.3  
Building Envelope Requirements—Fenestration**

CLIMATE ZONE	5 AND MARINE 4	6
<b>Vertical Fenestration</b>		
<b>U-factor</b>		
Nonmetal framing (all) <sup>a</sup>	0.30	0.30
Metal framing (fixed) <sup>b</sup>	0.38	0.36
Metal framing (operable) <sup>c</sup>	0.40	0.40
Metal framing (entrance doors) <sup>d</sup>	0.60	0.60
<b>SHGC</b>		
SHGC	0.40	0.40

CLIMATE ZONE	5 AND MARINE 4	6
<b>Skylights</b>		
<b>U-factor</b>	0.50	0.50
<b>SHGC</b>	0.35	0.35

NR = No requirement.

<sup>a</sup> "Nonmetal framing" includes framing materials other than metal, with or without metal reinforcing or cladding.

<sup>b</sup> "Metal framing" includes metal framing, with or without thermal break. "Fixed" includes curtain wall, storefront, picture windows, and other fixed windows.

<sup>c</sup> "Metal framing" includes metal framing, with or without thermal break. "Operable" includes openable fenestration products other than "entrance doors."

<sup>d</sup> "Metal framing" includes metal framing, with or without thermal break. "Entrance door" includes glazed swinging entrance doors. Other doors which are not entrance doors, including sliding glass doors, are considered "operable."

NEW SECTION

**WAC 51-11C-40231 Section C402.3.1—Maximum area.**

**C402.3.1 Maximum area.** The vertical fenestration area (not including opaque doors and opaque spandrel panels) shall not exceed 30 percent of the gross above-grade wall area. The skylight area shall not exceed 3 percent of the gross roof area.

**C402.3.1.1 Increased vertical fenestration area with daylighting controls.** In Climate Zones 1 through 6, a maximum of 40 percent of the gross above-grade wall area shall be permitted to be vertical fenestration, provided:

1. No less than 50 percent of the conditioned floor area is within a daylight zone;
2. Automatic daylighting controls are installed in daylight zones; and
3. Visible transmittance (VT) of vertical fenestration is greater than or equal to 1.1 times solar heat gain coefficient (SHGC).

EXCEPTION: Fenestration that is outside the scope of NFRC 200 is not required to comply with Item 3.

**C402.3.1.2 Increased skylight area with daylighting controls.** The skylight area shall be permitted to be a maximum of 5 percent of the roof area provided automatic daylighting controls are installed in daylight zones under skylights.

NEW SECTION

**WAC 51-11C-40232 Section C402.3.2—Minimum skylight fenestration area.**

**C402.3.2 Minimum skylight fenestration area.** In an enclosed space greater than 10,000 square feet (929 m<sup>2</sup>), directly under a roof with ceiling heights greater than 15 feet (4572 mm), and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, nonrefrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the total daylight zone under skylights shall be not less than half the floor area and shall provide a

minimum skylight area to daylight zone under skylights of either:

1. Not less than 3 percent with a skylight VT of at least 0.40; or
2. Provide a minimum skylight effective aperture of at least 1 percent determined in accordance with Equation C4-1.

**(Equation C4-1)**

where:

- Skylight area = Total fenestration area of skylights.
- Skylight VT = Area weighted average visible transmittance of skylights.
- WF = Area weighted average well factor, where well factor is 0.9 if light well depth is less than 2 feet (610 mm), or 0.7 if light well depth is 2 feet (610 mm) or greater.
- Light well depth = Measure vertically from the underside of the lowest point of the skylight glazing to the ceiling plane under the skylight.

EXCEPTION: Skylights above daylight zones of enclosed spaces are not required in:

1. Buildings in Climate Zones 6 through 8.
2. Spaces where the designed *general lighting* power densities are less than 0.5 W/ft<sup>2</sup> (5.4 W/m<sup>2</sup>).
3. Areas where it is documented that existing structures or natural objects block direct beam sunlight on at least half of the roof over the enclosed area for more than 1,500 daytime hours per year between 8 a.m. and 4 p.m.
4. Spaces where the daylight zone under rooftop monitors is greater than 50 percent of the enclosed space floor area.

**C402.3.2.1 Lighting controls in daylight zones under skylights.** All lighting in the daylight zone shall be controlled by automatic daylighting controls that comply with Section C405.2.2.3.2.

EXCEPTION: Skylights above daylight zones of enclosed spaces are not required in:

1. Buildings in Climate Zones 6 through 8.
2. Spaces where the designed *general lighting* power densities are less than 0.5 W/ft<sup>2</sup> (5.4 W/m<sup>2</sup>).
3. Areas where it is documented that existing structures or natural objects block direct beam sunlight on at least half of the roof over the enclosed area for more than 1,500 daytime hours per year between 8 a.m. and 4 p.m.
4. Spaces where the daylight zone under rooftop monitors is greater than 50 percent of the enclosed space floor area.

**C402.3.2.2 Haze factor.** Skylights in office, storage, automotive service, manufacturing, nonrefrigerated warehouse, retail store, and distribution/sorting area spaces shall have a glazing material or diffuser with a measured haze factor greater than 90 percent when tested in accordance with ASTM D 1003.

EXCEPTION: Skylights designed to exclude direct sunlight entering the occupied space by the use of fixed or automated baffles, or the geometry of skylight and light well need not comply with Section C402.3.2.2.

NEW SECTION

**WAC 51-11C-40233 Section C402.3.3—Maximum U-factor and SHGC.**

**C402.3.3 Maximum U-factor and SHGC.** For vertical fenestration, the maximum U-factor and solar heat gain coefficient (SHGC) shall be as specified in Table C402.3, based on the window projection factor. For skylights, the maximum U-factor and solar heat gain coefficient (SHGC) shall be as specified in Table C402.3.

The window projection factor shall be determined in accordance with Equation C4-2.

$$PF = A/B$$

**(Equation C4-2)**

where:

- PF = Projection factor (decimal).
- A = Distance measured horizontally from the furthest continuous extremity of any overhang, eave, or permanently attached shading device to the vertical surface of the glazing.
- B = Distance measured vertically from the bottom of the glazing to the underside of the overhang, eave, or permanently attached shading device.

Where different windows or glass doors have different PF values, they shall each be evaluated separately.

**C402.3.3.1 SHGC adjustment.** Where the fenestration projection factor for a specific vertical fenestration product is greater than or equal to 0.2, the required maximum SHGC from Table C402.3 shall be adjusted by multiplying the required maximum SHGC by the multiplier specified in Table C402.3.3.1 corresponding with the orientation of the fenestration product and the projection factor.

**Table C402.3.3.1  
SHGC Adjustment Multipliers**

PROJECTION FACTOR	ORIENTED WITHIN 45 DEGREES OF TRUE NORTH	ALL OTHER ORIENTATION
0.2 ≤ PF < 0.5	1.1	1.2
PF ≥ 0.5	1.2	1.6

**C402.3.3.2 Increased vertical fenestration SHGC.** In Climate Zones 1, 2 and 3, vertical fenestration entirely located not less than 6 feet (1729 mm) above the finished floor shall be permitted a maximum SHGC of 0.40.

**C402.3.3.3 Reserved.**

**C402.3.3.4 Reserved.**

**C402.3.3.5 Dynamic glazing.** For compliance with Section C402.3.3, the SHGC for dynamic glazing shall be determined using the manufacturer's lowest-rated SHGC, and the VT/SHGC ratio shall be determined using the maximum VT and maximum SHGC. Dynamic glazing shall be considered separately from other fenestration, and area-weighted averaging with other fenestration that is not dynamic glazing shall not be permitted.

NEW SECTION**WAC 51-11C-40234 Section C402.3.4—Area-weighted *U*-factor.**

**C402.3.4 Area-weighted *U*-factor.** An area-weighted average shall be permitted to satisfy the *U*-factor requirements for each fenestration product category listed in Table C402.3. Individual fenestration products from different fenestration product categories listed in Table C402.3 shall not be combined in calculating area-weighted average *U*-factor.

NEW SECTION**WAC 51-11C-40240 Section C402.4—Air leakage.**

**C402.4 Air leakage (Mandatory).** The thermal envelope of buildings shall comply with Sections C402.4.1 through C402.4.8.

NEW SECTION**WAC 51-11C-40241 Section C402.4.1—Air barriers.**

**C402.4.1 Air barriers.** A continuous air barrier shall be provided throughout the building thermal envelope. The air barriers shall be permitted to be located on the inside or outside of the building envelope, located within the assemblies composing the envelope, or any combination thereof. The air barrier shall comply with Sections C402.4.1.1 and C402.4.1.2.

EXCEPTION: Air barriers are not required in buildings located in Climate Zones 1, 2 and 3.

**C402.4.1.1 Air barrier construction.** The *continuous air barrier* shall be constructed to comply with the following:

1. The air barrier shall be continuous for all assemblies that are the thermal envelope of the building and across the joints and assemblies.

2. Air barrier joints and seams shall be sealed, including sealing transitions in places and changes in materials. Air barrier penetrations shall be sealed in accordance with Section C402.4.2. The joints and seals shall be securely installed in or on the joint for its entire length so as not to dislodge, loosen or otherwise impair its ability to resist positive and negative pressure from wind, stack effect and mechanical ventilation.

3. Recessed lighting fixtures shall comply with Section C404.2.8. Where similar objects are installed which penetrate the air barrier, provisions shall be made to maintain the integrity of the air barrier.

EXCEPTION: Buildings that comply with Section C402.4.1.2.3 are not required to comply with Items 1 and 3.

**C402.4.1.2 Air barrier compliance options.** A continuous air barrier for the opaque building envelope shall comply with Section C402.4.1.2.1, C402.4.1.2.2, or C402.4.1.2.3.

**C402.4.1.2.1 Materials.** Materials with an air permeability no greater than 0.004 cfm/ft<sup>2</sup> (0.02 L/s • m<sup>2</sup>) under a pressure differential of 0.3 inches water gauge (w.g.) (75 Pa) when tested in accordance with ASTM E 2178 shall comply with this section. Materials in Items 1 through 15 shall be deemed to comply with this section provided joints are sealed and materials are installed as air barriers in accordance with the manufacturer's instructions.

1. Plywood with a thickness of not less than 3/8 inch (10 mm).

2. Oriented strand board having a thickness of not less than 3/8 inch (10 mm).

3. Extruded polystyrene insulation board having a thickness of not less than 1/2 inch (12 mm).

4. Foil-back polyisocyanurate insulation board having a thickness of not less than 1/2 inch (12 mm).

5. Closed cell spray foam a minimum density of 1.5 pcf (2.4 kg/m<sup>3</sup>) having a thickness of not less than 1 1/2 inches (36 mm).

6. Open cell spray foam with a density between 0.4 and 1.5 pcf (0.6 and 2.4 kg/m<sup>3</sup>) and having a thickness of not less than 4.5 inches (113 mm).

7. Exterior or interior gypsum board having a thickness of not less than 1/2 inch (12 mm).

8. Cement board having a thickness of not less than 1/2 inch (12 mm).

9. Built up roofing membrane.

10. Modified bituminous roof membrane.

11. Fully adhered single-ply roof membrane.

12. A Portland cement/sand parge, or gypsum plaster having a thickness of not less than 5/8 inch (16 mm).

13. Cast-in-place and precast concrete.

14. Fully grouted concrete block masonry.

15. Sheet steel or aluminum.

**C402.4.1.2.2 Assemblies.** Assemblies of materials and components with an average air leakage not to exceed 0.04 cfm/ft<sup>2</sup> (0.2 L/s • m<sup>2</sup>) under a pressure differential of 0.3 inches of water gauge (w.g.) (75 Pa) when tested in accordance with ASTM E 2357, ASTM E 1677 or ASTM E 283 shall comply with this section. Assemblies listed in Items 1 and 2 shall be deemed to comply provided joints are sealed and requirements of Section C402.4.1.1 are met.

1. Concrete masonry walls coated with one application either of block filler and two applications of a paint or sealer coating;

2. A Portland cement/sand parge, stucco or plaster minimum 1/2 inch (12 mm) in thickness.

**C402.4.1.2.3 Building test.** The completed building shall be tested and the air leakage rate of the *building envelope* shall not exceed 0.40 cfm/ft<sup>2</sup> at a pressure differential of 0.3 inches water gauge (2.0 L/s • m<sup>2</sup> at 75 Pa) in accordance with ASTM E 779 or an equivalent method approved by the code official.

NEW SECTION

**WAC 51-11C-40242 Section C402.4.2—Air barrier penetrations.**

**C402.4.2 Air barrier penetrations.** Penetrations of the air barrier and paths of air leakage shall be caulked, gasketed or otherwise sealed in a manner compatible with the construction materials and location. Joints and seals shall be sealed in the same manner or taped or covered with a moisture vapor-permeable wrapping material. Sealing materials shall be appropriate to the construction materials being sealed. The joints and seals shall be securely installed in or on the joint for its entire length so as not to dislodge, loosen or otherwise impair its ability to resist positive and negative pressure from wind, stack effect and mechanical ventilation.

NEW SECTION

**WAC 51-11C-40243 Section C402.4.3—Air leakage of fenestration.**

**C402.4.3 Air leakage of fenestration.** The air leakage of fenestration assemblies shall meet the provisions of Table C402.4.3. Testing shall be in accordance with the applicable reference test standard in Table C402.4.3 by an accredited, independent testing laboratory and *labeled* by the manufacturer.

EXCEPTIONS:

1. Field-fabricated fenestration assemblies that are sealed in accordance with Section C402.4.1.
2. Fenestration in buildings that comply with Section C402.4.1.2.3 are not required to meet the air leakage requirements in Table C402.4.3.
3. Custom exterior windows and doors manufactured by a small business provided they meet the applicable provisions of Chapter 24 of the *International Building Code*. Once visual inspection has confirmed the presence of a gasket, operable windows and doors manufactured by *small business* shall be permitted to be sealed off at the frame prior to the test.

**Table C402.4.3  
Maximum Air Infiltration Rate  
for Fenestration Assemblies**

FENESTRATION ASSEMBLY	MAXIMUM RATE (CFM/FT <sup>2</sup> )	TEST PROCEDURE
Windows	0.20 <sup>a</sup>	AAMA/ WDMA/ CSA101/I.S.2 /A440 or NFRC 400
Sliding doors	0.20 <sup>a</sup>	
Swinging doors	0.20 <sup>a</sup>	
Skylights - With condensation weepage openings	0.30	NFRC 400 or ASTM E 283 at 1.57 psf (75 Pa)
Skylights - All other	0.20 <sup>a</sup>	
Curtain walls	0.06	
Storefront glazing	0.06	
Commercial glazed swinging entrance doors	1.00	
Revolving doors	1.00	
Garage doors	0.40	
Rolling doors	1.00	ANSI/DASMA 105, NFRC 400, or ASTM E 283 at 1.57 psf (75 Pa)

For SI: 1 cubic foot per minute = 0.47 L/s, 1 square foot = 0.093 m<sup>2</sup>.

<sup>a</sup> The maximum rate for windows, sliding and swinging doors, and skylights is permitted to be 0.3 cfm per square foot of fenestration or door area when tested in accordance with AAMA/WDMA/CSA101/I.S.2/A440 at 6.24 psf (300 Pa).

NEW SECTION

**WAC 51-11C-40244 Section C402.4.4—Doors and access openings.**

**C402.4.4 Doors and access openings to shafts, chutes, stairways, and elevator lobbies.** Doors and access openings from conditioned space to shafts, chutes, stairways and elevator lobbies shall either meet the requirements of Section C402.4.3 or shall be gasketed, weatherstripped or sealed.

EXCEPTION: Door openings required to comply with Section 715 or 715.4 of the *International Building Code*; or doors and door openings required by the *International Building*

Code to comply with UL 1784 shall not be required to comply with Section C402.4.4.

NEW SECTION

**WAC 51-11C-40245 Section C402.4.5—Air intakes, exhaust openings, stairways and shafts.**

**C402.4.5 Air intakes, exhaust openings, stairways and shafts.** Stairway enclosures and elevator shaft vents and other outdoor air intakes and exhaust openings integral to the building envelope shall be provided with dampers in accordance with Sections C402.4.5.1 and C402.4.5.2.

**C402.4.5.1 Stairway and shaft vents.** Stairway and shaft vents shall be provided with Class I motorized dampers with a maximum leakage rate of 4 cfm/ft<sup>2</sup> (20.3 L/s • m<sup>2</sup>) at 1.0 inch water gauge (w.g.) (249 Pa) when tested in accordance with AMCA 500D.

Stairway and shaft vent dampers shall be installed with controls so that they are capable of automatically opening upon:

1. The activation of any fire alarm initiating device of the building's fire alarm system; or
2. The interruption of power to the damper.

**C402.4.5.2 Outdoor air intakes and exhausts.** *Outdoor air* supply, exhaust openings and relief outlets shall be provided with Class IA motorized dampers which close automatically when the system is off. Return air dampers shall be equipped with motorized dampers. Dampers shall have a maximum leakage rate of 4 cfm/ft<sup>2</sup> (20.3 L/s • m<sup>2</sup>) at 1.0 inch water gauge (w.g.) (249 Pa) when tested in accordance with AMCA 500D.

- EXCEPTIONS:
1. Gravity (nonmotorized) dampers having a maximum leakage rate of 20 cfm/ft<sup>2</sup> (101.6 L/s • m<sup>2</sup>) at 1.0 inch water gauge (w.g.) (249 Pa) when tested in accordance with AMCA 500D are permitted to be used for relief openings in buildings less than three stories in height above grade if equipment has less than 5,000 cfm total supply flow.
  2. Gravity (nonmotorized) dampers for ventilation air intakes shall be protected from direct exposure to wind.
  3. Gravity dampers smaller than 24 inches (610 mm) in either dimension shall be permitted to have a leakage of 40 cfm/ft<sup>2</sup> (203.2 L/s • m<sup>2</sup>) at 1.0 inch water gauge (w.g.) (249 Pa) when tested in accordance with AMCA 500D.
  4. Gravity (nonmotorized) dampers in Group R occupancies where the design outdoor air intake or exhaust capacity does not exceed 400 cfm (189 L/s).

#### NEW SECTION

**WAC 51-11C-40246 Section C402.4.6—Loading dock weatherseals.**

**C402.4.6 Loading dock weatherseals.** Cargo doors and loading dock doors shall be equipped with weatherseals to restrict infiltration when vehicles are parked in the doorway.

#### NEW SECTION

**WAC 51-11C-40247 Section C402.4.7—Vestibules.**

**C402.4.7 Vestibules.** All building entrances shall be protected with an enclosed vestibule, with all doors opening into and out of the vestibule equipped with self-closing devices. Vestibules shall be designed so that in passing through the vestibule it is not necessary for the interior and exterior doors to open at the same time. The installation of one or more revolving doors in the building entrance shall not eliminate the requirement that a vestibule be provided on any doors adjacent to revolving doors.

Interior and exterior doors shall have a minimum distance between them of not less than 7 feet. The exterior envelope of conditioned vestibules shall comply with the requirements for a conditioned space. Either the interior or exterior

envelope of unconditioned vestibules shall comply with the requirements for a conditioned space. The building lobby is not considered a vestibule.

- EXCEPTIONS:
1. Buildings in Climate Zones 1 and 2.
  2. Doors not intended to be used by the public, such as doors to mechanical or electrical equipment rooms, or intended solely for employee use.
  3. Doors opening directly from a *sleeping unit* or dwelling unit.
  4. Doors that open directly from a space less than 3,000 square feet (298 m<sup>2</sup>) in area and are separate from the building entrance.
  5. Revolving doors.
  6. Doors used primarily to facilitate vehicular movement or material handling and adjacent personnel doors.
  7. Building entrances in buildings that are less than four stories above grade and less than 10,000 ft<sup>2</sup> in area.
  8. Elevator doors in parking garages provided that the elevators have an enclosed lobby at each level of the garage.

#### NEW SECTION

**WAC 51-11C-40248 Section C402.4.8—Recessed lighting.**

**C402.4.8 Recessed lighting.** Recessed luminaires installed in the *building thermal envelope* shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and *labeled* as having an air leakage rate or not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E 283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and interior wall or ceiling covering.

#### NEW SECTION

**WAC 51-11C-40250 Section C402.5—Walk-in coolers and walk-in freezers.**

**C402.5 Walk-in coolers and walk-in freezers.** Walk-in coolers and walk-in freezers shall comply with all of the following:

1. Shall be equipped with automatic door closers that firmly close walk-in doors that have been closed to within 1 inch of full closure.

EXCEPTION: Doors wider than 3 feet 9 inches or taller than 7 feet.

2. Doorways shall have strip doors (curtains), spring-hinged doors, or other method of minimizing infiltration when doors are open.

3. *Walk-in coolers* shall contain wall, ceiling, and door insulation of at least R-25 and *walk-in freezers* at least R-32.

EXCEPTION: Glazed portions of doors or structural members.

4. *Walk-in freezers* shall contain floor insulation of at least R-28.

5. Transparent reach-in doors for *walk-in freezers* and windows in *walk-in freezer* doors shall be of triple-pane glass, either filled with inert gas or with heat-reflective treated glass.

6. Transparent reach-in doors for *walk-in coolers* and windows in *walk-in cooler* doors shall be double-pane glass with heat-reflective treated glass and gas filled; or triple-pane glass, either filled with inert gas or with heat-reflective treated glass.

#### NEW SECTION

**WAC 51-11C-40260 Section C402.6—Refrigerated warehouse coolers and freezers.**

**C402.6 Refrigerated warehouse coolers and refrigerated warehouse freezers.** Refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with all of the following:

1. Shall be equipped with automatic door closers that firmly close walk-in doors that have been closed to within 1 inch of full closure.

EXCEPTION: Doors wider than 3 feet 9 inches or taller than 7 feet.

2. Doorways shall have strip doors (curtains), spring-hinged doors, or other method of minimizing infiltration when doors are open.

3. *Refrigerated warehouse coolers* shall contain wall, ceiling, and door insulation of at least R-25 and *refrigerated warehouse freezers* at least R-32.

EXCEPTION: Glazed portions of doors or structural members.

4. *Refrigerated warehouse freezers* shall contain floor insulation of at least R-28.

5. Transparent reach-in doors for *refrigerated warehouse freezers* and windows in *refrigerated warehouse freezer* doors shall be of triple-pane glass, either filled with inert gas or with heat-reflective treated glass.

6. Transparent reach-in doors for *refrigerated warehouse coolers* and windows in *refrigerated warehouse cooler* doors shall be double-pane glass with heat-reflective treated glass and gas filled; or triple-pane glass, either filled with inert gas or with heat-reflective treated glass.

#### NEW SECTION

**WAC 51-11C-40300 Section C403—Mechanical systems.**

#### NEW SECTION

**WAC 51-11C-40310 Section C403.1—General.**

**C403.1 General.** Mechanical systems and equipment serving heating, cooling, ventilating, and other needs shall comply with Section C403.2 (referred to as the mandatory provisions) and either:

1. Section C403.3 (Simple systems); or
2. Section C403.4 (Complex systems).

EXCEPTION: Energy using equipment used by a manufacturing, industrial or commercial process other than for conditioning spaces or maintaining comfort and amenities for the occupants and not otherwise regulated by C403.2.3, Tables C403.2.1 (1) through (9) inclusive, C403.2.4.5, C403.2.5.4, C403.2.8, C403.2.13, C403.4.6, C403.5, C403.6, C404.2, or Table C404.2. Data center HVAC equipment is not covered by this exception.

Walk-in coolers and walk-in freezers shall comply with C403.5. Refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with C403.6.

#### NEW SECTION

**WAC 51-11C-40320 Section C403.2—Provisions applicable to all mechanical systems.**

**C403.2 Provisions applicable to all mechanical systems (Mandatory).** Mechanical systems and equipment serving the building heating, cooling or ventilating needs shall comply with Sections C403.2.1 through C403.2.11.

#### NEW SECTION

**WAC 51-11C-40321 Section C403.2.1—Calculation of heating and cooling loads.**

**C403.2.1 Calculation of heating and cooling loads.** Design loads shall be determined in accordance with the procedures described in ANSI/ASHRAE/ACCA Standard 183. The design loads shall account for the building envelope, lighting, ventilation and occupancy loads based on the project design. Heating and cooling loads shall be adjusted to account for load reductions that are achieved where energy recovery systems are utilized in the HVAC system in accordance with the *ASHRAE HVAC Systems and Equipment Handbook*. Alternatively, design loads shall be determined by an *approved* equivalent computation procedure, using the design parameters specified in Chapter 3.

#### NEW SECTION

**WAC 51-11C-40322 Section C403.2.2—Equipment and systems sizing.**

**C403.2.2 Equipment and system sizing.** The output capacity of heating and cooling equipment and systems shall not exceed the loads calculated in accordance with Section C403.2.1. A single piece of equipment providing both heating and cooling shall satisfy this provision for one function with the capacity for the other function as small as possible, within available equipment options.

EXCEPTIONS:

1. Required standby equipment and systems provided with controls and devices that allow such systems or equipment to operate automatically only when the primary equipment is not operating.
2. Multiple units of the same equipment type with combined capacities exceeding the design load and provided with controls that have the capability to sequence the operation of each unit based on load.

#### NEW SECTION

**WAC 51-11C-40323 Section C403.2.3—HVAC equipment performance requirements.**

**C403.2.3 HVAC equipment performance requirements.** Equipment shall meet the minimum efficiency requirements of Tables C403.2.3(1), C403.2.3(2), C403.2.3(3), C403.2.3(4), C403.2.3(5), C403.2.3(6), C403.2.3(7) and C403.2.3(8) when tested and rated in accordance with the applicable test procedure. Plate-type liquid-to-liquid heat

exchangers shall meet the minimum requirements of Table C403.2.3(9). The efficiency shall be verified through certification and listed under an *approved* certification program or, if no certification program exists, the equipment efficiency ratings shall be supported by data furnished by the manufacturer. Where multiple rating conditions or performance requirements are provided, the equipment shall satisfy all stated requirements. Where components, such as indoor or outdoor coils, from different manufacturers are used, calculations and supporting data shall be furnished by the designer that demonstrates that the combined efficiency of the specified components meets the requirements herein.

Gas-fired and oil-fired forced air furnaces with input ratings  $\geq 225,000$  Btu/h (65 kW) and all unit heaters shall also have an intermittent ignition or interrupted device (IID), and have either mechanical draft (including power venting) or a flue damper. A vent damper is an acceptable alternative to a flue damper for furnaces where combustion air is drawn from the conditioned space. All furnaces with input ratings  $\geq 225,000$  Btu/h (65 kW), including electric furnaces, that are

$$\text{Adjusted minimum full-load COP ratings} = (\text{Full-load COP from Table 6.8.1C of AHRI Standard 550/590}) \times K_{adj}$$

**(Equation C4-3)**

$$\text{Adjusted minimum NPLV rating} = (\text{IPLV from Table 6.8.1C of AHRI Standard 550/590}) \times K_{adj}$$

**(Equation C4-4)**

Where:

$$K_{adj} = A \times B$$

$$A = 0.000015318 \times (\text{LIFT})^4 - 0.000202076 \times (\text{LIFT})^3 + 0.0101800 \times (\text{LIFT})^2 - 0.264958 \times \text{LIFT} + 3.930196$$

$$B = 0.0027 \times Lvg^{Evap} (\text{°C}) + 0.982$$

$$\text{LIFT} = Lvg^{Cond} - Lvg^{Evap}$$

$$Lvg^{Cond} = \text{Full-load condenser leaving water temperature (°C)}$$

$$Lvg^{Evap} = \text{Full-load leaving evaporator temperature (°C)}$$

SI units shall be used in the *Kadj* equation.

The adjusted full-load and *NPLV* values shall only be applicable for centrifugal chillers meeting all of the following full-load design ranges:

1. The leaving evaporator fluid temperature is not less than 36°F (2.2°C).
2. The leaving condenser fluid temperature is not greater than 115°F (46.1°C).
3. LIFT is not less than 20°F (11.1°C) and not greater than 80°F (44.4°C).

EXCEPTION: Centrifugal chillers designed to operate outside of these ranges need not comply with this code.

**C403.2.3.2 Positive displacement (air- and water-cooled) chilling packages.** Equipment with a leaving fluid temperature higher than 32°F (0°C), shall meet the requirements of Table C403.2.3(7) when tested or certified with water at standard rating conditions, in accordance with the referenced test procedure.

**C403.2.3.3 Packaged electric heating and cooling equipment.** Packaged electric equipment providing both heating

and cooling with a total cooling capacity greater than 20,000 Btu/h shall be a heat pump.

Chilled water plants and buildings with more than 500 tons total capacity shall not have more than 100 tons provided by air-cooled chillers.

- EXCEPTIONS:
1. Where the designer demonstrates that the water quality at the building site fails to meet manufacturer's specifications for the use of water-cooled equipment.
  2. Air-cooled chillers with minimum efficiencies at least 10 percent higher than those listed in Table C403.2.3(7).
  3. Replacement of existing equipment.

**C403.2.3.1 Water-cooled centrifugal chilling packages.**

Equipment not designed for operation at AHRI Standard 550/590 test conditions of 44°F (7°C) leaving chilled-water temperature and 85°F (29°C) entering condenser water temperature with 3 gpm/ton (0.054 l/s • kW) condenser water flow shall have maximum full-load kW/ton and *NPLV* ratings adjusted using Equations C4-3 and C4-4.

and cooling with a total cooling capacity greater than 20,000 Btu/h shall be a heat pump.

EXCEPTION: Unstaffed equipment shelters or cabinets used solely for personal wireless service facilities.

**C403.2.3.4 Humidification.** If an air economizer is required on a cooling system for which humidification equipment is to be provided to maintain minimum indoor humidity levels, then the humidifier shall be of the adiabatic type (direct evaporative media or fog atomization type).

- EXCEPTIONS:
1. Health care facilities where WAC 246-320-525 allows only steam injection humidifiers in duct work downstream of final filters.
  2. Systems with water economizer.
  3. 100% outside air systems with no provisions for air recirculation to the central supply fan.
  4. Nonadiabatic humidifiers cumulatively serving no more than 10% of a building's air economizer capacity as measured in cfm. This refers to the system cfm serving rooms with stand alone or duct mounted humidifiers.



**NEW SECTION**

**WAC 51-11C-403231 Table C403.2.3(1)—Minimum efficiency requirements—Electrically operated unitary air conditioners and condensing units.**

**Table C403.2.3(1)<sup>a</sup>  
Minimum Efficiency Requirements—Electrically Operated Unitary Air Conditioners and Condensing Units**

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency		Test Procedure <sup>a</sup>		
				Before 6/1/2011	As of 6/1/2011			
Air conditioners, air cooled	< 65,000 Btu/h <sup>b</sup>	All	Split System	13.0 SEER	13.0 SEER	AHRI 210/240		
			Single Package	13.0 SEER	13.0 SEER			
Through-the-wall (air cooled)	≤ 30,000 Btu/h <sup>b</sup>	All	Split System	12.0 SEER	12.0 SEER			
			Single Package	12.0 SEER	12.0 SEER			
Small-duct high-velocity (air cooled)	< 65,000 Btu/h <sup>b</sup>	All	Split System	10.0 SEER	10.0 SEER			
Air conditioners, air cooled	≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.2 EER 11.4 IEER	11.2 EER 11.4 IEER		AHRI 340/360	
			All other	11.0 EER 11.2 IEER	11.0 EER 11.2 IEER			
	≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.2 IEER	11.0 EER 11.2 IEER			
			All other	10.8 EER 11.0 IEER	10.8 EER 11.0 IEER			
	≥ 240,000 Btu/h and < 760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	10.0 EER 10.1 IEER	10.0 EER 10.1 IEER			
			All other	9.8 EER 9.9 IEER	9.8 EER 9.9 IEER			
	≥ 760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	9.7 EER 9.8 IEER	9.7 EER 9.8 IEER			
			All other	9.5 EER 9.6 IEER	9.5 EER 9.6 IEER			
	Air conditioners, water cooled	< 65,000 Btu/h <sup>b</sup>	All	Split System and Single Package	12.1 EER 12.3 IEER	12.1 EER 12.3 IEER		AHRI 210/240
		≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.5 EER 11.7 IEER	12.1 EER 12.3 IEER		AHRI 340/360
				All other	11.3 EER 11.5 IEER	11.9 EER 12.1 IEER		
		≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.2 IEER	12.5 EER 12.7 IEER		
All other				10.8 EER 11.0 IEER	12.3 EER 12.5 IEER			
≥ 240,000 Btu/h and < 760,000 Btu/h		Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.1 IEER	12.4 EER 12.6 IEER			
			All other	10.8 EER 10.9 IEER	12.2 EER 12.4 IEER			
≥ 760,000 Btu/h		Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.1 IEER	12.0 EER 12.4 IEER			
			All other	10.8 EER 10.9 IEER	12.0 EER 12.2 IEER			
Air conditioners, evaporatively cooled		< 65,000 Btu/h <sup>b</sup>	All	Split System and Single Package	12.1 EER 12.3 IEER	12.1 EER 12.3 IEER	AHRI 210/240	
		≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.5 EER 11.7 IEER	12.1 EER 12.3 IEER	AHRI 340/360	
				All other	11.3 EER 11.5 IEER	11.9 EER 12.1 IEER		
		≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.2 IEER	12.0 EER 12.2 IEER		
				All other	10.8 EER 11.0 IEER	11.8 EER 12.0 IEER		

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency		Test Procedure <sup>a</sup>
				Before 6/1/2011	As of 6/1/2011	
	≥ 240,000 Btu/h and < 760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.1 IEER	11.9 EER 12.1 IEER	
		All other	Split System and Single Package	10.8 EER 10.9 IEER	12.2 EER 11.9 IEER	
	≥ 760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.1 EER	11.7 EER 11.9 EER	
		All other	Split System and Single Package	10.8 EER 10.9 EER	11.5 EER 11.7 EER	
Condensing units, air cooled	≥ 135,000 Btu/h			10.1 EER 11.4 IEER	10.5 EER 14.0 IEER	AHRI 365
Condensing units, water cooled	≥ 135,000 Btu/h			13.1 EER 13.6 IEER	13.5 EER 14.0 IEER	
Condensing units, evaporatively cooled	≥ 135,000 Btu/h			13.1 EER 13.6 IEER	13.5 EER 14.0 IEER	

For SI: 1 British thermal unit per hour = 0.2931 W.

<sup>a</sup>Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the reference year version of the test procedure.

<sup>b</sup>Single-phase, air-cooled air conditioners less than 65,000 Btu/h are regulated by NAECA. SEER values are those set by NAECA.

**Table C403.2.3(1)<sup>b</sup>**  
**Minimum Efficiency Requirements—Air Conditioners and Condensing Units Serving Computer Rooms**

Equipment Type	Net Sensible Cooling Capacity <sup>a</sup>	Minimum Scop-127 <sup>b</sup> Efficiency Downflow Units/upflow Units	Test Procedure
Air conditioners, air cooled	< 65,000 Btu/h (< 19 kW)	2.20/2.09	ANSI/ASHRAE 127
	> = 65,000 Btu/h and < 240,000 Btu/h (> = 19 kW and < 70 kW)	2.10/1.99	
	> = 240,000 Btu/h (> = 70 kW)	1.90/1.79	
Air conditioners, water cooled	< 65,000 Btu/h (< 19 kW)	2.60/2.49	ANSI/ASHRAE 127
	> = 65,000 Btu/h and < 240,000 Btu/h (> = 19 kW and < 70 kW)	2.50/2.39	
	> = 240,000 Btu/h (> = 70 kW)	2.40/2.29	
Air conditioners, water cooled with fluid economizer	< 65,000 Btu/h (< 19 kW)	2.55/2.44	ANSI/ASHRAE 127
	> = 65,000 Btu/h and < 240,000 Btu/h (> = 19 kW and < 70 kW)	2.45/2.34	
	> = 240,000 Btu/h (> = 70 kW)	2.35/2.24	
Air conditioners, glycol cooled (rated at 40% propylene glycol)	< 65,000 Btu/h (< 19 kW)	2.50/2.39	ANSI/ASHRAE 127
	> = 65,000 Btu/h and < 240,000 Btu/h (> = 19 kW and < 70 kW)	2.15/2.04	
	> = 240,000 Btu/h (> = 70 kW)	2.10/1.99	
Air conditioners, glycol cooled (rated at 40% propylene glycol) with fluid economizer	< 65,000 Btu/h (< 19 kW)	2.45/2.34	ANSI/ASHRAE 127
	> = 65,000 Btu/h and < 240,000 Btu/h (> = 19 kW and < 70 kW)	2.10/1.99	

Equipment Type	Net Sensible Cooling Capacity <sup>a</sup>	Minimum Scop-127 <sup>b</sup> Efficiency Downflow Units/upflow Units	Test Procedure
	> = 240,000 Btu/h (> = 70 kW)	2.05/1.94	

<sup>a</sup>Net sensible cooling capacity: The total gross cooling capacity less the latent cooling less the energy to the air movement system (Total Gross - Latent - Fan Power).

<sup>b</sup>Sensible coefficient of performance (SCOP-127): A ratio calculated by dividing the net sensible cooling capacity in watts by the total power input in watts (excluding reheaters and humidifiers) at conditions defined in ASHRAE Standard 127. The net sensible cooling capacity is the gross sensible capacity minus the energy dissipated into the cooled space by the fan system.

**Table C403.2.3(1)<sup>c</sup>**

**Minimum Efficiency Requirements—Electrically Operated Variable Refrigerant Flow Air Conditioners**

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure
VRF Air Conditioners, Air Cooled	< 65,000 Btu/h	All	VRF Multi-Split System	13.0 SEER	AHRI 1230
	≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or none)	VRF Multi-Split System	11.2 EER 13.1 IEER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or none)	VRF Multi-Split System	11.0 EER 12.9 IEER	
	≥ 240,000 Btu/h	Electric Resistance (or none)	VRF Multi-split System	10.0 EER 11.6 IEER	

**Table C403.2.3(1)<sup>d</sup>**

**Minimum Efficiency Requirements—Electrically Operated Variable Refrigerant Flow Air-to-Air and Applied Heat Pumps**

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure
VRF Air Cooled, (cooling mode)	< 65,000 Btu/h	All	VRF Multi-Split System	13.0 SEER	AHRI 1230
	≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or none)	VRF Multi-Split System	11.2 EER 12.9 IEER	
	≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or none)	VRF Multi-Split System with Heat Recovery	10.8 EER 12.7 IEER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or none)	VRF Multi-Split System	10.6 EER 12.3 IEER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or none)	VRF Multi-Split System with Heat Recovery	10.4 EER 12.1 IEER	
	≥ 240,000 Btu/h	Electric Resistance (or none)	VRF Multi-Split System	9.5 EER 11.0 IEER	
	≥ 240,000 Btu/h	Electric Resistance (or none)	VRF Multi-Split System with Heat Recovery	9.3 EER 10.8 IEER	

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure
VRF Water Source (cooling mode)	< 65,000 Btu/h	All	VRF Multi-Split System <i>86°F entering water</i>	12.0 EER	AHRI 1230
	< 65,000 Btu/h	All	VRF Multi-Split System with Heat Recovery <i>86°F entering water</i>	11.8 EER	
	≥ 65,000 Btu/h and < 135,000 Btu/h	All	VRF Multi-Split System <i>86°F entering water</i>	12.0 EER	
	≥ 65,000 Btu/h and < 135,000 Btu/h	All	VRF Multi-Split System with Heat Recovery <i>86°F entering water</i>	11.8 EER	
	≥ 135,000 Btu/h	All	VRF Multi-Split System <i>86°F entering water</i>	10.0 EER	
	≥ 135,000 Btu/h	All	VRF Multi-Split System with Heat Recovery <i>86°F entering water</i>	9.8 EER	
VRF Groundwater Source (cooling mode)	< 135,000 Btu/h	All	VRF Multi-Split System <i>59°F entering water</i>	16.2 EER	AHRI 1230
	< 135,000 Btu/h	All	VRF Multi-Split System with Heat Recovery <i>59°F entering water</i>	16.0 EER	
	≥ 135,000 Btu/h	All	VRF Multi-Split System <i>59°F entering water</i>	13.8 EER	
	≥ 135,000 Btu/h	All	VRF Multi-Split System with Heat Recovery <i>59°F entering water</i>	13.6 EER	
VRF Ground Source (cooling mode)	< 135,000 Btu/h	All	VRF Multi-Split System <i>77°F entering water</i>	13.4 EER	AHRI 1230
	< 135,000 Btu/h	All	VRF Multi-Split System with Heat Recovery <i>77°F entering water</i>	13.2 EER	
	≥ 135,000 Btu/h	All	VRF Multi-Split System <i>77°F entering water</i>	11.0 EER	
	≥ 135,000 Btu/h	All	VRF Multi-Split System with Heat Recovery <i>77°F entering water</i>	10.8 EER	
VRF Air Cooled (heating mode)	< 65,000 Btu/h (cooling capacity)	—	VRF Multi-Split System	7.7 HSPF	AHRI 1230

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure
	≥ 65,000 Btu/h and < 135,000 Btu/h (cooling capacity)	—	VRF Multi-Split System <i>47°F db/43°F wb outdoor air</i> <i>17°F db/15°F wb outdoor air</i>	3.3 COP 2.25 COP	
	≥ 135,000 Btu/h (cooling capacity)	—	VRF Multi-Split System <i>47°F db/43°F wb outdoor air</i> <i>17°F db/15°F wb outdoor air</i>	3.2 COP 2.05 COP	
VRF Water Source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	VRF Multi-Split System <i>68°F entering water</i>	4.2 COP	AHRI 1230
	≥ 135,000 Btu/h (cooling capacity)	—	VRF Multi-Split System <i>68°F entering water</i>	3.9 COP	
VRF Groundwater Source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	VRF Multi-Split System <i>50°F entering water</i>	3.6 COP	AHRI 1230
	≥ 135,000 Btu/h (cooling capacity)	—	VRF Multi-Split System <i>50°F entering water</i>	3.3 COP	
VRF Ground Source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	VRF Multi-Split System <i>32°F entering water</i>	3.1 COP	AHRI 1230
	≥ 135,000 Btu/h (cooling capacity)	—	VRF Multi-Split System <i>32°F entering water</i>	2.8 COP	

NEW SECTION

**WAC 51-11-403232 Table C403.2.3(2)—Minimum efficiency requirements—Electrically operated unitary and applied heat pumps.**

**Table C403.2.3(2)  
Minimum Efficiency Requirements—Electrically Operated Unitary and Applied Heat Pumps**

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure <sup>a</sup>
Air cooled (cooling mode)	< 65,000 Btu/h <sup>b</sup>	All	Split System	13.0 SEER	AHRI 210/240
			Single Packaged	13.0 SEER	
Through-the-wall, air cooled	≤ 30,000 Btu/h <sup>b</sup>	All	Split System	13.0 SEER	
			Single Packaged	13.0 SEER	
Single-duct high-velocity air cooled	< 65,000 Btu/h <sup>b</sup>	All	Split System	10.0 SEER	
Air cooled (cooling mode)	≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.2 IEER	AHRI 340/360
		All Other	Split System and Single Package	10.8 EER 11.0 IEER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	10.6 EER 10.7 IEER	
		All Other	Split System and Single Package	10.4 EER 10.5 IEER	

Equipment Type	Size Category	Heating Section Type	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure <sup>a</sup>
	≥ 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	9.5 EER 9.6 IEER	
		All Other	Split System and Single Package	9.3 EER 9.4 IEER	
Water source (cooling mode)	< 17,000 Btu/h	All	86°F entering water	11.2 EER	ISO 13256-1
	≥ 17,000 Btu/h and < 65,000 Btu/h	All	86°F entering water	12.0 EER	
	≥ 65,000 Btu/h and < 135,000 Btu/h	All	86°F entering water	12.0 EER	
Ground water source (cooling mode)	< 135,000 Btu/h	All	59°F entering water	16.2 EER	
		All	77°F entering water	13.4 EER	
Water-source water to water (cooling mode)	< 135,000 Btu/h	All	86°F entering water	10.6 EER	ISO 13256-2
			59°F entering water	16.3 EER	
Ground water source brine to water (cooling mode)	< 135,000 Btu/h	All	77°F entering fluid	12.1 EER	
Air cooled (heating mode)	< 65,000 Btu/h <sup>b</sup>	—	Split System	7.7 HSPF	AHRI 210/240
		—	Single Package	7.7 HSPF	
Through-the-wall, (air cooled, heating mode)	≤ 30,000 Btu/hb (cooling capacity)	—	Split System	7.4 HSPF	
		—	Single Package	7.4 HSPF	
Small-duct high velocity (air cooled, heating mode)	< 65,000 Btu/h <sup>b</sup>	—	Split System	6.8 HSPF	
Air cooled (heating mode)	≥ 65,000 Btu/h and < 135,000 Btu/h (cooling capacity)	—	47°F db/43°F wb Outdoor Air	3.3 COP	AHRI 340/360
			17°F db/15°F wb Outdoor Air	2.25 COP	
	≥ 135,000 Btu/h (cooling capacity)	—	47°F db/43°F wb Outdoor Air	3.2 COP	
			17°F db/15°F wb Outdoor Air	2.05 COP	
Water source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	68°F entering water	4.2 COP	ISO 13256-1
Ground water source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	50°F entering water	3.6 COP	
Ground source (heating mode)	< 135,000 Btu/h (cooling capacity)	—	32°F entering fluid	3.1 COP	
Water-source water to water (heating mode)	< 135,000 Btu/h (cooling capacity)	—	68°F entering water	3.7 COP	ISO 13256-2
		—	50°F entering water	3.1 COP	
Ground source brine to water (heating mode)	< 135,000 Btu/h (cooling capacity)	—	32°F entering fluid	2.5 COP	

For SI: 1 British thermal unit per hour = 0.2931 W, °C = [(°F) - 32]/1.8.

<sup>a</sup>Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the reference year version of the test procedure.

<sup>b</sup>Single-phase, air-cooled air conditioners less than 65,000 Btu/h are regulated by NAECA. SEER values are those set by NAECA.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

WAC 51-11C-403233 Table C403.2.3(3)—Minimum efficiency requirements—Electrically operated PTAC, PTHP, SPVAC, SVHP, room air conditioners.

**Table C403.2.3(3)**  
**Minimum Efficiency Requirements—Electrically Operated Packaged Terminal Air Conditioners, Packaged Terminal Heat Pumps, Single-Package Vertical Air Conditioners, Single Vertical Heat Pumps, Room Air Conditioners and Room Air-Conditioner Heat Pumps**

Equipment Type	Size Category (Input)	Subcategory or Rating Condition	Minimum Efficiency		Test Procedure <sup>a</sup>
			Before 10/08/2012	As of 10/08/2012	
PTAC (cooling mode) new construction	All Capacities	95°F db outdoor air	12.5 - (0.213 × Cap/1000) EER	13.8 - (0.300 × Cap/1000) EER	AHRI 310/380
PTAC (cooling mode) replacements <sup>b</sup>	All Capacities	95°F db outdoor air	10.9 - (0.213 × Cap/1000) EER	10.9 - (0.213 × Cap/1000) EER	
PTHP (cooling mode) new construction	All Capacities	95°F db outdoor air	12.3 - (0.213 × Cap/1000) EER	14.0 - (0.300 × Cap/1000) EER	
PTHP (cooling mode) replacements <sup>b</sup>	All Capacities	95°F db outdoor air	10.8 - (0.213 × Cap/1000) EER	10.8 - (0.213 × Cap/1000) EER	
PTHP (heating mode) new construction	All Capacities	—	3.2 - (0.026 × Cap/1000) COP	3.7 - (0.052 × Cap/1000) COP	
PTHP (heating mode) replacements <sup>b</sup>	All Capacities	—	2.9 - (0.026 × Cap/1000) COP	2.9 - (0.026 × Cap/1000) COP	
SPVAC (cooling mode)	< 65,000 Btu/h	95°F db/75°F wb outdoor air	9.0 EER	9.0 EER	AHRI 390
	≥ 65,000 Btu/h and < 135,000 Btu/h	95°F db/75°F wb outdoor air	8.9 EER	8.9 EER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	95°F db/75°F wb outdoor air	8.6 EER	8.6 EER	
SPVHP (cooling mode)	< 65,000 Btu/h	95°F db/75°F wb outdoor air	9.0 EER	9.0 EER	
	≥ 65,000 Btu/h and < 135,000 Btu/h	95°F db/75°F wb outdoor air	8.9 EER	8.9 EER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	95°F db/75°F wb outdoor air	8.6 EER	8.6 EER	
SPVHP (heating mode)	<65,000 Btu/h	47°F db/43°F wb outdoor air	3.0 COP	3.0 COP	AHRI 390
	≥ 65,000 Btu/h and < 135,000 Btu/h	47°F db/43°F wb outdoor air	3.0 COP	3.0 COP	
	≥ 135,000 Btu/h and < 240,000 Btu/h	47°F db/75°F wb outdoor air	2.9 COP	2.9 COP	
Room air conditioners, with louvered slides	< 6,000 Btu/h	—	9.7 SEER	9.7 SEER	ANSI/AHA-MRAC-1
	≥ 6,000 Btu/h and < 8,000 Btu/h	—	9.7 EER	9.7 EER	
	≥ 8,000 Btu/h and < 14,000 Btu/h	—	9.8 EER	9.8 EER	
	≥ 14,000 Btu/h and < 20,000 Btu/h	—	9.7 SEER	9.7 SEER	
	≥ 20,000 Btu/h	—	8.5 EER	8.5 EER	
Room air conditioners, with louvered slides	< 8,000 Btu/h	—	9.0 EER	9.0 EER	
	≥ 8,000 Btu/h and < 20,000 Btu/h	—	8.5 EER	8.5 EER	
	≥ 20,000 Btu/h	—	8.5 EER	8.5 EER	
Room air-conditioner heat pumps with louvered sides	< 20,000 Btu/h	—	9.0 EER	9.0 EER	
	≥ 20,000 Btu/h	—	8.5 EER	8.5 EER	
Room air-conditioner heat pumps without louvered sides	< 14,000 Btu/h	—	8.5 EER	8.5 EER	
	≥ 14,000 Btu/h	—	8.0 EER	8.0 EER	

Equipment Type	Size Category (Input)	Subcategory or Rating Condition	Minimum Efficiency		Test Procedure <sup>a</sup>
			Before 10/08/2012	As of 10/08/2012	
Room air conditioner case-ment only	All capacities	—	8.7 EER	8.7 EER	
Room air conditioner case-ment-slider	All capacities	—	9.5 EER	9.5 EER	

For SI: 1 British thermal unit per hour = 0.2931 W, °C = [(°F) - 32]/1.8.

"Cap" = The rated cooling capacity of the product in Btu/h. If the unit's capacity is less than 7000 Btu/h, use 7000 Btu/h in the calculation. If the unit's capacity is greater than 15,000 Btu/h, use 15,000 Btu/h in the calculations.

<sup>a</sup>Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.

<sup>b</sup>Replacement unit shall be factory labeled as follows: "MANUFACTURED FOR REPLACEMENT APPLICATIONS ONLY: NOT TO BE INSTALLED IN NEW CONSTRUCTION PROJECTS." Replacement efficiencies apply only to units with existing sleeves less than 16 inches (406 mm) in height and less than 42 inches (1067 mm) in width.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11C-403234 Table C403.2.3(4)—Minimum efficiency requirements—Warm air furnaces and unit heaters.**

**Table 403.2.3(4)**

**Warm Air Furnaces and Combination Warm Air Furnaces/Air-Conditioning Units, Warm Air Duct Furnaces and Unit Heaters, Minimum Efficiency Requirements**

Equipment Type	Size Category (Input)	Subcategory or Rating Condition	Minimum Efficiency <sup>d, e</sup>	Test Procedure <sup>a</sup>
Warm air furnaces, gas fired	< 225,000 Btu/h	—	78% AFUE or 80% <i>Et</i> <sup>f</sup>	DOE 10 C.F.R. Part 430 or ANSI Z21.47
	≥ 225,000 Btu/h	Maximum capacity <sup>c</sup>	80% <i>Et</i> <sup>f</sup>	ANSI Z21.47
Warm air furnaces, oil fired	< 225,000 Btu/h	—	78% AFUE or 80% <i>Et</i> <sup>f</sup>	DOE 10 C.F.R. Part 430 or UL 727
	≥ 225,000 Btu/h	Maximum capacity <sup>b</sup>	81% <i>Et</i> <sup>g</sup>	UL 727
Warm air duct furnaces, gas fired	All capacities	Maximum capacity <sup>b</sup>	80% <i>Ec</i>	ANSI Z83.8
Warm air unit heaters, gas fired	All capacities	Maximum capacity <sup>b</sup>	80% <i>Ec</i>	ANSI Z83.8
Warm air unit heaters, oil fired	All capacities	Maximum capacity <sup>b</sup>	80% <i>Ec</i>	UL 731

For SI: 1 British thermal unit per hour = 0.2931 W.

<sup>a</sup>Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.

<sup>b</sup>Minimum and maximum ratings as provided for and allowed by the unit's controls.

<sup>c</sup>Combination units not covered by the National Appliance Energy Conservation Act of 1987 (NAECA) (3-phase power or cooling capacity greater than or equal to 65,000 Btu/h [19 kW]) shall comply with either rating.

<sup>d</sup> *Et* = Thermal efficiency. See test procedure for detailed discussion.

<sup>e</sup> *Ec* = Combustion efficiency (100% less flue losses). See test procedure for detailed discussion.

<sup>f</sup> *Ec* = Combustion efficiency. Units must also include an IID, have jackets not exceeding 0.75 percent of the input rating, and have either power venting or a flue damper. A vent damper is an acceptable alternative to a flue damper for those furnaces where combustion air is drawn from the conditioned space.

<sup>g</sup> *Et* = Thermal efficiency. Units must also include an IID, have jacket losses not exceeding 0.75 percent of the input rating, and have either power venting or a flue damper. A vent damper is an acceptable alternative to a flue damper for those furnaces where combustion air is drawn from the conditioned space.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.



NEW SECTION

**WAC 51-11C-403235 Table C403.2.3(5)—Minimum efficiency requirements—Gas- and oil-fired boilers.**

**Table C403.2.3(5)  
Minimum Efficiency Requirements—Gas- and Oil-Fired Boilers**

Equipment Type <sup>a</sup>	Subcategory or Rating Condition	Size Category (Input)	Minimum Efficiency	Test Procedure
Boilers, hot water	Gas-fired	< 300,000 Btu/h	80% AFUE	10 C.F.R. Part 430
		≥ 300,000 Btu/h and ≤ 2,500,000 Btu/h <sup>b</sup>	80% <i>Et</i>	10 C.F.R. Part 431
		> 2,500,000 Btu/h <sup>a</sup>	82% <i>Ec</i>	
	Oil-fired <sup>c</sup>	< 300,000 Btu/h	80% AFUE	10 C.F.R. Part 430
		≥ 300,000 Btu/h and ≥ 2,500,000 Btu/h <sup>b</sup>	82% <i>Et</i>	10 C.F.R. Part 431
		> 2,500,000 Btu/h <sup>a</sup>	84% <i>Ec</i>	
Boilers, steam	Gas-fired	< 300,000 Btu/h	75% AFUE	10 C.F.R. Part 430
	Gas-fired - All, except natural draft	≥ 300,000 Btu/h and ≤ 2,500,000 Btu/h <sup>b</sup>	79% <i>Et</i>	10 C.F.R. Part 431
		> 2,500,000 Btu/h <sup>a</sup>	79% <i>Et</i>	
	Gas-fired-natural draft	≥ 300,000 Btu/h and ≤ 2,500,000 Btu/h <sup>b</sup>	77% <i>Et</i>	
		> 2,500,000 Btu/h <sup>a</sup>	77% <i>Et</i>	
	Oil-fired <sup>c</sup>	< 300,000 Btu/h	80% AFUE	10 C.F.R. Part 430
		≥ 300,000 Btu/h and ≤ 2,500,000 Btu/h <sup>b</sup>	81% <i>Et</i>	10 C.F.R. Part 431
		> 2,500,000 Btu/h <sup>a</sup>	81% <i>Et</i>	

For SI: 1 British thermal unit per hour = 0.2931 W.

*Ec* = Combustion efficiency (100 percent less flue losses).

*Et* = Thermal efficiency. See referenced standard document for detailed information.

<sup>a</sup>These requirements apply to boilers with rated input of 8,000,000 Btu/h or less that are not packaged boilers and to all packaged boilers. Minimum efficiency requirements for boilers cover all capacities of packaged boilers.

<sup>b</sup>Maximum capacity minimum and maximum ratings as provided for and allowed by the unit's controls.

<sup>c</sup>Includes oil-fired (residual).

NEW SECTION

**WAC 51-11C-403236 Table C403.2.3(6)—Reserved.**

**Table C403.2.3(6)  
Reserved**

NEW SECTION

**WAC 51-11C-403237 Table C403.2.3(7)—Minimum efficiency requirements—Water chilling packages.**

**Table C403.2.3(7)  
Minimum Efficiency Requirements—Water Chilling Packages<sup>a</sup>**

Equipment Type	Size Category	Units	Before 1/1/2010		As of 1/1/2010 <sup>b</sup>				Test Procedure <sup>c</sup>
			Full Load	IPLV	Path A		Path B		
					Full Load	IPLV	Full Load	IPLV	
Air cooled chillers	< 150 tons	EER	≥ 9.562	≥ 10.416	≥ 9.562	≥ 12.500	NA	NA	AHRI 550/590
	≥ 150 tons	EER			≥ 9.562	≥ 12.750	NA	NA	
Air cooled without condenser, electrical operated	All capacities	EER	≥ 10.586	≥ 11.782	Air cooled chillers without condensers shall be rated with matching condensers and comply with the air cooled chiller efficiency requirements				
Water cooled, electrically operated, reciprocating	All capacities	kW/ton	≤ 0.837	≤ 0.696	Reciprocating units shall comply with water cooled positive displacement efficiency requirements				

Equipment Type	Size Category	Units	Before 1/1/2010		As of 1/1/2010 <sup>b</sup>				Test Procedure <sup>c</sup>
			Full Load	IPLV	Path A		Path B		
					Full Load	IPLV	Full Load	IPLV	
Water cooled, electrically operated, positive displacement	< 75 tons	kW/ton	≤ 0.790	≤ 0.676	≤ 0.780	≤ 0.630	≤ 0.800	≤ 0.600	
	≥75 tons and < 150 tons	kW/ton			≤ 0.775	≤ 0.615	≤ 0.790	≤ 0.586	
	≥ 150 tons and < 300 tons	kW/ton	≤ 0.717	≤ 0.627	≤ 0.680	≤ 0.580	≤ 0.718	≤ 0.540	
	≥ 300 tons	kW/ton	≤ 0.639	≤ 0.571	≤ 0.620	≤ 0.540	≤ 0.639	≤ 0.490	
Water cooled, electrically operated, centrifugal	< 150 tons	kW/ton	≤ 0.703	≤ 0.669	≤ 0.634	≤ 0.596	≤ 0.639	≤ 0.450	
	≥ 150 tons and < 300 tons	kW/ton	≤ 0.634	≤ 0.596					
	≥ 300 tons and < 600 tons	kW/ton	≤ 0.576	≤ 0.549	≤ 0.576	≤ 0.549	≤ 0.600	≤ 0.400	
	≥600 tons	kW/ton	≤ 0.576	≤ 0.549	≤ 0.570	≤ 0.539	≤ 0.590	≤ 0.400	
Air cooled, absorption single effect	All capacities	COP	≥ 0.600	NR	≥ 0.600	NR	NA	NA	AHRI 560
Water cooled, absorption single effect	All capacities	COP	≥ 0.700	NR	≥ 0.700	NR	NA	NA	
Absorption double effect, indirect fired	All capacities	COP	≥ 1.000	≥ 1.050	≥ 1.000	≥ 1.050	NA	NA	
Absorption double effect, direct fired	All capacities	COP	≥ 1.000	≥ 1.000	≥ 1.000	≥ 1.000	NA	NA	

For SI: 1 ton = 3517 W, 1 British thermal unit per hour = 0.2931 W, °C = [(°F) - 32]/1.8.

NA = Not applicable, not to be used for compliance;  
 NR = No requirement.

<sup>a</sup> The centrifugal chiller equipment requirements, after adjustment in accordance with Section C403.2.3.1 or Section C403.2.3.2, do not apply to chillers used in low-temperature applications where the design leaving fluid temperature is less than 36°F. The requirements do not apply to positive displacement chillers with leaving fluid temperatures less than or equal to 32°F. The requirements do not apply to absorption chillers with design leaving fluid temperatures less than 40°F.

<sup>b</sup> Compliance with this standard can be obtained by meeting the minimum requirements of Path A or B. However, both the full load and IPLV shall be met to fulfill the requirements of Path A or B.

<sup>c</sup> Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

**NEW SECTION**

**WAC 51-11C-403238 Table C403.2.3(8)—Minimum efficiency requirements—Heat rejection equipment.**

**Table C403.2.3(8)  
 Minimum Efficiency Requirements—Heat Rejection Equipment**

Equipment Type <sup>a</sup>	Total System Heat Rejection Capacity at Rated Conditions	Subcategory or Rating Condition	Performance Required <sup>b, c, d</sup>	Test Procedure <sup>e, f</sup>
Propeller or axial fan open circuit cooling towers	All	95°F Entering Water 85°F Leaving Water 75°F Entering wb	≥ 38.2 gpm/hp	CTI ATC-105 and CTI STD-201
Centrifugal fan open circuit cooling towers	All	95°F Entering Water 85°F Leaving Water 75°F Entering wb	≥ 20.0 gpm/hp	CTI ATC-105 and CTI STD-201
Propeller or axial fan closed circuit cooling towers	All	102°F Entering Water 90°F Leaving Water 75°F Entering wb	≥ 14.0 gpm/hp	CTI ATC-105S and CTI STD-201
Centrifugal closed circuit cooling towers	All	102°F Entering Water 90°F Leaving Water 75°F Entering wb	≥ 7.0 gpm/hp	CTI ATC-105S and CTI STD-201

Equipment Type <sup>a</sup>	Total System Heat Rejection Capacity at Rated Conditions	Subcategory or Rating Condition	Performance Required <sup>b, c, d</sup>	Test Procedure <sup>e, f</sup>
Air cooled condensers	All	125°F Condensing Temperature R-22 Test Fluid 190°F Entering Gas Temperature 15°F Subcooling 95°F Entering db	≥ 176,000 Btu/h • hp	ARI 460

For SI: °C = [(°F) - 32]/1.8, L/s • kW = (gpm/hp)/(11.83), COP = (Btu/h • hp)/(2550.7).

db = dry bulb temperature, °F;

wb = wet bulb temperature, °F.

<sup>a</sup> The efficiencies and test procedures for both open and closed circuit cooling towers are not applicable to hybrid cooling towers that contain a combination of wet and dry heat exchange sections.

<sup>b</sup> For purposes of this table, open circuit cooling tower performance is defined as the water flow rating of the tower at the thermal rating condition listed in Table 403.2.3(8) divided by the fan nameplate rated motor power.

<sup>c</sup> For purposes of this table, closed circuit cooling tower performance is defined as the water flow rating of the tower at the thermal rating condition listed in Table 403.2.3(8) divided by the sum of the fan nameplate rated motor power and the spray pump nameplate rated motor power.

<sup>d</sup> For purposes of this table, air cooled condenser performance is defined as the heat rejected from the refrigerant divided by the fan nameplate rated motor power.

<sup>e</sup> Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.

<sup>f</sup> If a certification program exists for a covered product, and it includes provisions for verification and challenge of equipment efficiency ratings, then the product shall be listed in the certification program, or, if a certification program exists for a covered product, and it includes provisions for verification and challenge of equipment efficiency ratings, but the product is not listed in the existing certification program, the ratings shall be verified by an independent laboratory test report.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11C-403239 Table C403.2.3(9)—Minimum efficiency requirements—Heat transfer equipment.**

**Table C403.2.3(9)  
Heat Transfer Equipment**

Equipment Type	Subcategory	Minimum Efficiency	Test Procedure <sup>a</sup>
Liquid-to-liquid heat exchangers	Plate type	NR	AHRI 400

NR = No requirement.

<sup>a</sup> Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.

NEW SECTION

**WAC 51-11C-40324 Section C403.2.4—HVAC system controls.**

**C403.2.4 HVAC system controls.** Each heating and cooling system shall be provided with thermostatic controls as specified in Section C403.2.4.1, C403.2.4.2, C403.2.4.3, C403.2.4.4, C403.4.1, C403.4.2, C403.4.3 or C403.4.4.

NEW SECTION

**WAC 51-11C-403241 Section C403.2.4.1—Thermostatic controls.**

**C403.2.4.1 Thermostatic controls.** The supply of heating and cooling energy to each *zone* shall be controlled by individual thermostatic controls capable of responding to temperature within the *zone*. At a minimum, each floor of a building

shall be considered as a separate zone. Controls on systems required to have economizers and serving single zones shall have multiple cooling stage capability and that activate the economizer when appropriate as the first stage of cooling. See Section C403.3.1 or C403.4.1 for further economizer control requirements. Where humidification or dehumidification or both is provided, at least one humidity control device shall be provided for each humidity control system.

**EXCEPTION:** Independent perimeter systems that are designed to offset only building envelope heat losses or gains or both serving one or more perimeter *zones* also served by an interior system provided:

1. The perimeter system includes at least one thermostatic control *zone* for each building exposure having exterior walls facing only one orientation (within +/- 45 degrees) (0.8 rad) for more than 50 contiguous feet (15,240 mm); and
2. The perimeter system heating and cooling supply is controlled by a thermostat located within the *zones* served by the system.

**C403.2.4.1.1 Heat pump supplementary heat.** Unitary air cooled heat pumps shall include microprocessor controls that minimize supplemental heat usage during start-up, set-up, and defrost conditions. These controls shall anticipate need for heat and use compression heating as the first stage of heat. Controls shall indicate when supplemental heating is being used through visual means (e.g., LED indicators). Heat pumps equipped with supplementary heaters shall be installed with controls that prevent supplemental heater operation above 40°F.

**EXCEPTION:** Packaged terminal heat pumps (PTHPs) of less than 2 tons (24,000 Btu/hr) cooling capacity provided with controls that prevent supplementary heater operation above 40°F.

NEW SECTION**WAC 51-11C-403242 Section C403.2.4.2—Setpoint overlap restriction.**

**C403.2.4.2 Setpoint overlap restriction.** Where used to control both heating and cooling, *zone* thermostatic controls shall provide a temperature range or deadband of at least 5°F (2.8°C) within which the supply of heating and cooling energy to the *zone* is capable of being shut off or reduced to a minimum.

EXCEPTION: Thermostats requiring manual changeover between heating and cooling modes.

NEW SECTION**WAC 51-11C-403243 Section C403.2.4.3—Off-hour controls.**

**C403.2.4.3 Off-hour controls.** For all occupancies other than Group R, each *zone* shall be provided with thermostatic setback controls that are controlled by either an automatic time clock or programmable control system.

EXCEPTIONS: 1. *Zones* that will be operated continuously.  
2. *Zones* with a full HVAC load demand not exceeding 6,800 Btu/h (2 kW) and having a readily accessible manual shutoff switch.

**C403.2.4.3.1 Thermostatic setback capabilities.** Thermostatic setback controls shall have the capability to set back or temporarily operate the system to maintain *zone* temperatures down to 55°F (13°C) or up to 85°F (29°C).

**C403.2.4.3.2 Automatic setback and shutdown capabilities.** Automatic time clock or programmable controls shall be capable of starting and stopping the system for seven different daily schedules per week and retaining their programming and time setting during a loss of power for at least 10 hours. Additionally, the controls shall have a manual override that allows temporary operation of the system for up to 2 hours; a manually operated timer capable of being adjusted to operate the system for up to 2 hours; or an occupancy sensor.

**C403.2.4.3.3 Automatic start capabilities.** Automatic start controls shall be provided for each HVAC system. The controls shall be capable of automatically adjusting the daily start time of the HVAC system in order to bring each space to the desired occupied temperature immediately prior to scheduled occupancy.

NEW SECTION**WAC 51-11C-403244 Section C403.2.4.4—Shutoff damper controls.**

**C403.2.4.4 Shutoff damper controls.** Both outdoor air supply and exhaust ducts shall be equipped with motorized dampers that will automatically shut when the systems or spaces served are not in use or during building warm-up, cooldown, and setback.

EXCEPTIONS: 1. Gravity relief dampers serving systems less than 5,000 cfm total supply shall be permitted in buildings less than three stories in height.  
2. Gravity dampers shall be permitted for buildings of any height located in Climate Zones 1, 2 and 3.

3. Gravity (nonmotorized) dampers in Group R occupancies where the design outdoor air intake or exhaust capacity does not exceed 400 cfm (189 L/s).
4. Systems serving areas which require continuous operation.
5. Combustion air intakes.
6. Operation of dampers shall be allowed during ventilation pre-purge one hour before expected occupancy and for unoccupied period precooling during the cooling season.

NEW SECTION**WAC 51-11C-403245 Section C403.2.4.5—Snowmelt system controls.**

**C403.2.4.5 Snow melt system controls.** Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F (10°C) and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F (4°C) so that the potential for snow or ice accumulation is negligible.

NEW SECTION**WAC 51-11C-403246 Section C403.2.4.6—Combustion heating equipment controls.**

**C403.2.4.6 Combustion heating equipment controls.** Combustion heating equipment with a capacity over 225,000 Btu/h shall have modulating or staged combustion control.

EXCEPTIONS: 1. Boilers.  
2. Radiant heaters.

NEW SECTION**WAC 51-11C-403247 Section C403.2.4.7—Hotel/motel controls.**

**C403.2.4.7 Group R-1 hotel/motel guest rooms.** For hotel and motel guest rooms, a minimum of one of the following control technologies shall be required in hotels/motels with over 50 guest rooms such that the space temperature would automatically setback (winter) or set up (summer) by no less than 3°C (5°F) or hotel and motel guest rooms, a minimum of:

1. Controls that are activated by the room occupant via the primary room access method - Key, card, deadbolt, etc.
2. Occupancy sensor controls that are activated by the occupant's presence in the room.

NEW SECTION**WAC 51-11C-403248 Section C403.2.4.8—Residential occupancy controls.**

**C403.2.4.8 Group R-2 and R-3 dwelling units.** The primary space conditioning system within each dwelling unit shall be provided with at least one programmable thermostat for the regulation of space temperature. The thermostat shall allow for, at a minimum, a 5-2 programmable schedule (weekdays/weekends) and be capable of providing at least two programmable setback periods per day.

Each additional system provided within the dwelling unit shall be provided with at least one adjustable thermostat for the regulation of temperature.

- EXCEPTIONS:
1. Systems controlled by an occupant sensor that is capable of shutting the system off when no occupant is sensed for a period of up to 30 minutes.
  2. Systems controlled solely by a manually operated timer capable of operating the system for no more than two hours.
  3. Ductless heat pumps.

Each thermostat shall be capable of being set by adjustment or selection of sensors as follows for control heating only 55°F to 75°F.

**C403.2.4.9 Group R-2 sleeping units.** The primary space conditioning system within each sleeping unit shall be provided with at least one programmable thermostat for the regulation of space temperature. The thermostat shall allow for, at a minimum, a 5-2 programmable schedule (week-days/weekends) and be capable of providing at least two programmable setback periods per day.

Each additional system provided within the sleeping unit shall be provided with at least one adjustable thermostat for the regulation of temperature.

- EXCEPTIONS:
1. Systems controlled by an occupant sensor that is capable of shutting the system off when no occupant is sensed for a period of up to 30 minutes.
  2. Systems controlled solely by a manually operated timer capable of operating the system for no more than two hours.
  3. *Zones* with a full HVAC load demand not exceeding 3,400 Btu/h (1 kW) and having a readily accessible manual shutoff switch.
  4. Ductless heat pumps.

Each thermostat shall be capable of being set by adjustment or selection of sensors as follows for control heating only 55°F to 75°F.

#### NEW SECTION

**WAC 51-11C-403249 Section C403.2.4.9—Direct digital control system capabilities.**

**C403.2.4.10 Direct digital control system capabilities.** All complex systems equipped with direct digital control (DDC) systems and all buildings with total cooling capacity exceeding 780,000 Btu/h (2,662 kW) shall have the following capability:

1. Trending: All control system input and output points shall be accessible and programmed for trending, and a graphic trending package shall be provided with the control system.
2. Demand Response Setpoint Adjustment: Control logic shall increase the cooling zone set points by at least 2°F (1°C) and reduce the heating zone set points by at least 2°F (1°C) when activated by a demand response signal. The demand response signal shall be a binary input to the control system or other interface approved by the serving electric utility.

#### NEW SECTION

**WAC 51-11C-40325 Section C403.2.5—Ventilation.**

**C403.2.5 Ventilation.** Ventilation, either natural or mechanical, shall be provided in accordance with Chapter 4 of the *International Mechanical Code*. Where mechanical ventilation is provided, the system shall provide the capability to reduce the outdoor air supply to the minimum required by Chapter 4 of the *International Mechanical Code*.

#### NEW SECTION

**WAC 51-11C-403251 Section C403.2.5.1—Demand control ventilation.**

**C403.2.5.1 Demand controlled ventilation.** Demand control ventilation (DCV) shall be provided for spaces larger than 500 square feet (50 m<sup>2</sup>) and with an occupant load greater than 25 people per 1000 square feet (93 m<sup>2</sup>) of floor area (as established in Table 403.3 of the *International Mechanical Code*) and served by systems with one or more of the following:

1. An air-side economizer;
2. Automatic modulating control of the outdoor air damper; or
3. A design outdoor airflow greater than 3,000 cfm (1400 L/s).

EXCEPTION: Demand control ventilation is not required for systems and spaces as follows:

1. Systems with energy recovery complying with Section C403.2.6.
2. Multiple-zone systems without direct digital control of individual *zones* communicating with a central control panel.
3. System with a design outdoor airflow less than 1,000 cfm (472 L/s).
4. Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1,200 cfm (600 L/s).
5. Ventilation provided for process loads only.

#### NEW SECTION

**WAC 51-11C-403252 Section C403.2.5.2—Occupancy sensors.**

**C403.2.5.2 Occupancy sensors.** Classrooms, gyms, auditoriums and conference rooms larger than 500 square feet of floor area shall have occupancy sensor control that will either close outside air dampers or turn off serving equipment when the space is unoccupied except where equipped with another means to automatically reduce outside air intake below design rates when spaces are partially occupied.

#### NEW SECTION

**WAC 51-11C-403253 Section C403.2.5.3—Loading dock and parking garage ventilation system controls.**

**C403.2.5.3 Enclosed loading dock and parking garage exhaust ventilation system control.** Mechanical ventilation systems for enclosed loading docks and parking garages shall be designed to exhaust the airflow rates (maximum and min-

imum) determined in accordance with the *International Mechanical Code*.

Ventilation systems shall be equipped with a control device that operates the system automatically upon detection of vehicle operation or the presence of occupants by approved automatic detection devices. Each of the following types of controllers shall be capable of shutting off fans or modulating fan speed.

1. Gas sensor controllers used to activate the exhaust ventilation system shall stage or modulate fan speed upon detection of specified gas levels. All equipment used in sensor controlled systems shall be designed for the specific use and installed in accordance with the manufacturer's recommendations. The system shall be arranged to operate automatically by means of carbon monoxide detectors applied in conjunction with nitrogen dioxide detectors. Garages and loading docks shall be equipped with a controller and a full array of carbon monoxide (CO) sensors set to maintain levels of carbon monoxide below 35 parts per million (ppm). Additionally, a full array of nitrogen dioxide detectors shall be connected to the controller set to maintain the nitrogen dioxide level below the OSHA standard for eight hour exposure. Spacing and location of the sensors shall be installed in accordance with manufacturer recommendations.

2. Automatic time clocks used to activate the system shall activate the system during occupied periods. The time clock shall be capable of scheduling multiple start and stop times for each day of the week, varying the daily schedule, and retaining programming for a 10-hour period during loss of power.

3. Occupant detection sensors used to activate the system shall detect entry into the parking garage along both the vehicle and pedestrian pathways.

**C403.2.5.3.1 System activation devices for enclosed loading docks.** Ventilation systems for enclosed loading docks shall be activated by one of the following:

- 1. Gas sensors; or
- 2. Time clock and a manual over-ride switch located in the dock area that is accessible to persons in the loading dock area.

**C403.2.5.3.2 System activation devices for enclosed parking garages.** Ventilation systems for enclosed parking garages shall be activated by gas sensors.

EXCEPTION: A parking garage ventilation system having a total design capacity under 8,000 cfm may use a time clock or occupant sensors.

NEW SECTION

**WAC 51-11C-403254 Section C403.2.5.4—Exhaust systems.**

**C403.2.5.4 Exhaust systems.**

**C403.2.5.4.1 Kitchen hoods.** Each kitchen area with total exhaust capacity larger than 2,000 cfm shall be provided with make-up air sized so that at least 50% of exhaust air volume be (a) unheated or heated to no more than 60°F and (b) uncooled or cooled without the use of mechanical cooling.

- EXCEPTIONS:
- 1. Where hoods are used to exhaust ventilation air which would otherwise exfiltrate or be exhausted by other fan systems. A detailed accounting of exhaust airflows shall be provided on the plans that accounts for the impact of any required demand controlled ventilation.
  - 2. Certified grease extractor hoods that require a face velocity no greater than 60 fpm.

**C403.2.5.4.2 Laboratory exhaust systems.** Buildings with laboratory exhaust systems having a total exhaust rate greater than 5,000 cfm (2,360 L/s) shall include heat recovery systems to preconditioned makeup air from laboratory exhaust. The heat recovery system shall be capable of increasing the outside air supply temperature at design heating conditions by 25°F (13.9°C) in Climate Zones 4C/5B and 35°F (19.4°C) in Climate Zone 6B. A provision shall be made to bypass or control the heat recovery system to permit air economizer operation as required by Section C403.4.

- EXCEPTIONS:
- 1. Variable air volume laboratory exhaust and room supply systems capable of reducing exhaust and make-up air volume to 50% or less of design values; or
  - 2. Direct make-up (auxiliary) air supply equal to at least 75% of the exhaust rate, heated no warmer than 2°F (1.1°C) below room set point, cooled to no cooler than 3°F (1.7°C) above room set point, no humidification added, and no simultaneous heating and cooling used for dehumidification control; or
  - 3. Combined Energy Reduction Method: VAV exhaust and room supply system capable of reducing exhaust and makeup air volumes and a heat recovery system to precondition makeup air from laboratory exhaust that when combined will produce the same energy reduction as achieved by a heat recovery system with a 50% sensible recovery effectiveness as required above. For calculation purposes, the heat recovery component can be assumed to include the maximum design supply airflow rate at design conditions. The combined energy reduction (Q<sub>ER</sub>) shall meet the following:

$$Q_{ER} \geq Q_{MIN}$$

$$Q_{MIN} = CFM_S \cdot (T_R - T_O) \cdot 1.1 \cdot 0.6$$

$$Q_{ER} = CFM_S \cdot (T_R - T_O) \cdot 1.1(A + B)/100$$

Where:

- Q<sub>MIN</sub> = Energy recovery at 60% sensible effectiveness (Btu/h)
- Q<sub>ER</sub> = Combined energy reduction (Btu/h)
- CFM<sub>S</sub> = The maximum design supply airflow rate to conditioned spaces served by the system in cubic feet per minute
- T<sub>R</sub> = Space return air dry bulb at winter design conditions
- T<sub>O</sub> = Outdoor air dry bulb at winter design conditions
- A = Percentage that the exhaust and makeup air volumes can be reduced from design conditions
- B = Percentage sensible heat recovery effectiveness

NEW SECTION

**WAC 51-11C-40326 Section C403.2.6—Energy recovery.**

**C403.2.6 Energy recovery.**

**C403.2.6.1 Energy recovery ventilation systems.** Any system with minimum outside air requirements at design conditions greater than 5,000 CFM or any system required by Table C403.2.6 shall include an energy recovery system. The energy recovery system shall have the capability to provide a change in the enthalpy of the outdoor air supply of not less than 50 percent of the difference between the outdoor air and return air enthalpies, at design conditions. Where an air economizer is required, the energy recovery system shall include a bypass or controls which permit operation of the economizer as required by Section C403.4. Where a single room or space is supplied by multiple units, the aggregate ventilation (cfm) of those units shall be used in applying this requirement.

EXCEPTION: An energy recovery ventilation system shall not be required in any of the following conditions:

1. Where energy recovery systems are prohibited by the *International Mechanical Code*.
2. Laboratory fume hood systems that include at least one of the following features:
  - 2.1. Variable-air-volume hood exhaust and room supply systems capable of reducing exhaust and makeup air volume to 50 percent or less of design values.
  - 2.2. Direct makeup (auxiliary) air supply equal to at least 75 percent of the exhaust rate, heated no warmer than 2°F (1.1°C) above room setpoint, cooled to no cooler than 3°F (1.7°C) below room setpoint, no humidification added, and no simultaneous heating and cooling used for dehumidification control.
3. Systems serving spaces that are heated to less than 60°F (15.5°C) and are not cooled.

4. Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.
5. Heating energy recovery in Climate Zones 1 and 2.
6. Cooling energy recovery in Climate Zones 3C, 4C, 5B, 5C, 6B, 7 and 8.
7. Systems requiring dehumidification that employ energy recovery in series with the cooling coil.
8. Multi-zone systems with cold deck supply air and zone reheat where the minimum outdoor air is less than 70 percent of total supply air.
9. Systems serving residential multifamily spaces where the largest source of air exhausted at a single location at the building exterior is less than 25 percent of the design outdoor air flow rate.

**C403.2.6.2 Condensate systems.** On-site steam heating systems shall have condensate water heat recovery. On-site includes a system that is located within or adjacent to one or more buildings within the boundary of a contiguous area or campus under one ownership and which serves one or more of those buildings.

Buildings using steam generated off-site with steam heating systems which do not have condensate water recovery shall have condensate water recovery.

**C403.2.6.3 Condenser heat recovery.** Facilities having food service, meat or deli departments and having 500,000 Btu/h or greater of remote refrigeration condensers shall have condenser waste heat recovery from freezers and coolers and shall use the waste heat for service water heating, space heating or for dehumidification reheat. Facilities having a gross conditioned floor area of 40,000 ft<sup>2</sup> or greater and 1,000,000 Btu/h or greater of remote refrigeration shall have condenser waste heat recovery from freezers and coolers and shall use the waste heat for service water heating, and either for space heating or for dehumidification reheat for maintaining low space humidity.

NEW SECTION

**WAC 51-11C-403261 Table C403.2.6—Energy recovery requirement.**

**Table C403.2.6  
Energy Recovery Requirement**

Climate Zone	Percent (%) Outdoor Air at Full Design Airflow Rate					
	≥ 30% and < 40%	≥ 40% and < 50%	≥ 50% and < 60%	≥ 60% and < 70%	≥ 70% and < 80%	≥ 80%
	Design Supply Fan Airflow Rate (cfm)					
3B, 3C, 4B, 4C, 5B	NR	NR	NR	NR	≥5000	≥ 5000
1B, 2B, 5C	NR	NR	≥ 26000	≥ 12000	≥ 5000	≥ 4000
6B	≥ 11000	≥ 5500	≥ 4500	≥ 3500	≥ 2500	≥ 1500
1A, 2A, 3A, 4A, 5A, 6A	≥ 5500	≥ 4500	≥ 3500	≥ 2000	≥ 1000	> 0
7, 8	≥ 2500	≥ 1000	> 0	> 0	> 0	> 0

NR = Not required.

NEW SECTION

**WAC 51-11C-40327 Section C403.2.7—Duct and plenum insulation and sealing.**

**C403.2.7 Duct and plenum insulation and sealing.**

C403.2.7.1 Ducts, shafts and plenums conveying outside air from the exterior of the building to the mechanical system shall meet all air leakage and building envelope insulation requirements of Section C402, plus building envelope vapor control requirements from the *International Building Code*, extending continuously from the building exterior to an automatic shutoff damper or heating or cooling equipment. For the purposes of building envelope insulation requirements, duct surfaces shall meet the requirements for metal framed walls per Table C402.1.2. Duct surfaces included as part of the building envelope shall not be used in the calculation of maximum glazing area as described in Section 402.3.1.

- EXCEPTIONS:
1. Outside air ducts serving individual supply air units with less than 2,800 cfm of total supply air capacity, provided these are insulated to R-7.
  2. Unheated equipment rooms with combustion air louvers, provided they are isolated from conditioned space at sides, top and bottom of the room with R-11 nominal insulation.

**C403.2.7.2 All other supply and return air ducts and plenums shall be insulated with a minimum of R-6 insulation where located in unconditioned spaces and a minimum of R-8 insulation where located outside the building.** Where located within a building envelope assembly, the duct or plenum shall be separated from the building exterior or unconditioned or exempt spaces by minimum insulation value as required for exterior walls by Section C402.2.3.

- EXCEPTIONS:
1. Where located within equipment.
  2. Where the design temperature difference between the interior and exterior of the duct or plenum does not exceed 15°F (8°C).

Supply ducts which convey supply air at temperatures less than 55°F or greater than 105°F shall be insulated with a minimum of R-3.3 insulation where located within conditioned space.

All ducts air handlers and filter boxes shall be sealed. Joints and seams shall comply with Section 603.9 of the *International Mechanical Code*.

**C403.2.7.3 Duct construction.** Ductwork shall be constructed and erected in accordance with the *International Mechanical Code*.

**C403.2.7.3.1 Low-pressure duct systems.** All longitudinal and transverse joints, seams and connections of supply and return ducts operating at a static pressure less than or equal to 2 inches water gauge (w.g.) (500 Pa) shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus embedded-fabric systems or tapes installed in accordance with the manufacturer's installation instructions. Pressure classifications specific to the duct system shall be clearly indicated on the construction documents in accordance with the *International Mechanical Code*.

- EXCEPTION:
- Continuously welded and locking-type longitudinal joints and seams on ducts operating at static pressures less than 2 inches water gauge (w.g.) (500 Pa) pressure classification.

**C403.2.7.3.2 Medium-pressure duct systems.** All ducts and plenums designed to operate at a static pressure greater than 2 inches water gauge (w.g.) (500 Pa) but less than 3 inches w.g. (750 Pa) shall be insulated and sealed in accordance with Section C403.2.7. Pressure classifications specific to the duct system shall be clearly indicated on the construction documents in accordance with the *International Mechanical Code*.

**C403.2.7.3.3 High-pressure duct systems.** Ducts designed to operate at static pressures in excess of 3 inches water gauge (w.g.) (750 Pa) shall be insulated and sealed in accordance with Section C403.2.7. In addition, ducts and plenums shall be leak-tested in accordance with the SMACNA *HVAC Air Duct Leakage Test Manual* with the rate of air leakage (*CL*) less than or equal to 6.0 as determined in accordance with Equation C4-5.

**(Equation C4-5)**

$$CL = F/P0.65$$

Where:

- F* = The measured leakage rate in cfm per 100 square feet of duct surface.
- P* = The static pressure of the test.

Documentation shall be furnished by the designer demonstrating that representative sections totaling at least 25 percent of the duct area have been tested and that all tested sections meet the requirements of this section.

NEW SECTION

**WAC 51-11C-40328 Section C403.2.8—Piping insulation.**

**C403.2.8 Piping insulation.** All piping serving as part of a heating or cooling system shall be thermally insulated in accordance with Table C403.2.8.

- EXCEPTIONS:
1. Factory-installed piping within HVAC equipment tested and rated in accordance with a test procedure referenced by this code.
  2. Factory-installed piping within room fan-coils and unit ventilators tested and rated according to AHRI 440 (except that the sampling and variation provisions of Section 6.5 shall not apply) and 840, respectively.
  3. Piping that conveys fluids that have a design operating temperature range between 60°F (15°C) and 105°F (41°C).
  4. Piping that conveys fluids that have not been heated or cooled through the use of fossil fuels or electric power.
  5. Strainers, control valves, and balancing valves associated with piping 1 inch (25 mm) or less in diameter.
  6. Direct buried piping that conveys fluids at or below 60°F (15°C).

**C403.2.8.1 Protection of piping insulation.** Piping insulation exposed to weather shall be protected from damage, including that due to sunlight, moisture, equipment maintenance and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesives tape shall not be permitted.



NEW SECTION

**WAC 51-11C-403281 Table C403.2.8—Minimum pipe insulation thickness.**

**Table C403.2.8  
Minimum Pipe Insulation Thickness (thickness in inches)<sup>a</sup>**

Fluid Operating Temperature Range and Usage (°F)	Insulation Conductivity		Nominal Pipe or Tube Size (inches)				
	Conductivity Btu • in. / (h • ft <sup>2</sup> • °F) <sup>b</sup>	Mean Rating Temperature, °F	< 1	1 to < 1-1/2	1-1/2 to < 4	4 to < 8	≥ 8
> 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0
251 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0
105 - 140	0.21 - 0.28	100	1.0	1.0	1.5	1.5	1.5
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0
< 40	0.20 - 0.26	75	0.5	1.0	1.0	1.0	1.5

<sup>a</sup> For piping smaller than 1-1/2 inch (38 mm) and located in partitions within *conditioned spaces*, reduction of these thicknesses by 1 inch (25 mm) shall be permitted (before thickness adjustment required in footnote b) but not to a thickness less than 1 inch (25 mm).

<sup>b</sup>For insulation outside the stated conductivity range, the minimum thickness (*T*) shall be determined as follows:

$$T = r\{(1 + t/r)K/k - 1\}$$

Where:

- T* = Minimum insulation thickness,
- r* = Actual outside radius of pipe,
- t* = Insulation thickness listed in the table for applicable fluid temperature and pipe size,
- K* = Conductivity of alternate material at mean rating temperature indicated for the applicable fluid temperature (Btu × in/h × ft<sup>2</sup> × °F) and
- k* = The upper value of the conductivity range listed in the table for the applicable fluid temperature.

<sup>c</sup> For direct-buried heating and hot water system piping, reduction of these thicknesses by 1-1/2 inches (38 mm) shall be permitted (before thickness adjustment required in footnote b but not to thicknesses less than 1 inch (25 mm)).

NEW SECTION

**WAC 51-11C-40329 Section C403.2.9—Mechanical system commissioning and completion requirements.**

**C403.2.9 Mechanical systems commissioning and completion requirements.** Mechanical systems shall be commissioned and completed in accordance with Section C408.2.

NEW SECTION

**WAC 51-11C-403291 Section C403.2.10—Air system design and control.**

**C403.2.10 Air system design and control.** Each HVAC system having a total fan system motor nameplate horsepower (hp) exceeding 5 horsepower (hp) (3.7 kW) shall meet the provisions of Sections C403.2.10.1 through C403.2.10.2.

**C403.2.10.1 Allowable fan floor horsepower.** Each HVAC system at fan system design conditions shall not exceed the allowable *fan system motor nameplate hp* (Option 1) or *fan*

*system bhp* (Option 2) as shown in Table C403.2.10.1(1). This includes supply fans, return/relief fans, and fan-powered terminal units associated with systems providing heating or cooling capability. Single *zone* variable-air-volume systems shall comply with the constant volume fan power limitation.

EXCEPTION: The following fan systems are exempt from allowable fan floor horsepower requirement.

1. Hospital, vivarium and laboratory systems that utilize flow control devices on exhaust and/or return to maintain space pressure relationships necessary for occupant health and safety or environmental control shall be permitted to use variable volume fan power limitation.
2. Individual exhaust fans with motor nameplate horsepower of 1 hp or less.

**C403.2.10.2 Motor nameplate horsepower.** For each fan, the selected fan motor shall be no larger than the first available motor size greater than the brake horsepower (bhp). The fan brake horsepower (bhp) shall be indicated on the design documents to allow for compliance verification by the *code official*.

EXCEPTIONS:

1. For fans less than 6 bhp (4413 W), where the first available motor larger than the brake horsepower has a nameplate rating within 50 percent of the bhp, selection of the next larger nameplate motor size is allowed.
2. For fans 6 bhp (4413 W) and larger, where the first available motor larger than the bhp has a nameplate rating within 30 percent of the bhp, selection of the next larger nameplate motor size is allowed.
3. For fans used only in *approved* life safety applications such as smoke evacuation.

**C403.2.10.3 Fractional hp fan motors.** Motors for fans that are 1/12 hp or greater and less than 1 hp shall be electronically commutated motors or shall have a minimum motor efficiency of 70 percent when rated in accordance with DOE 10 C.F.R. 431. These motors shall also have the means to adjust motor speed for either balancing or remote control. Belt-driven fans may use sheave adjustments for airflow balancing in lieu of a varying motor speed.

EXCEPTIONS:

1. Motors in the airstream within fan-coils and terminal units that operate only when providing heating to the space served.
2. Motors installed in space conditioning equipment certified under Section C403.2.3.

NEW SECTION

WAC 51-11C-403292 Table C403.2.10.1—Fan power limitation.

**Table C403.2.10.1(1)  
Fan Power Limitation**

	Limit	Constant Volume	Variable Volume
Option 1: Fan system motor nameplate hp	Allowable nameplate motor hp	hp ≤ CFMS × 0.0011	hp ≤ CFMS × 0.0015
Option 2: Fan system bhp	Allowable fan system bhp	bhp ≤ CFMS × 0.00094 + A	bhp ≤ CFMS × 0.0013 + A

Where:

- CFMS = The maximum design supply airflow rate to conditioned spaces served by the system in cubic feet per minute.
- hp = The maximum combined motor nameplate horsepower.
- bhp = The maximum combined fan brake horsepower.
- A = Sum of [PD × CFMD/4131]
- For SI: 1 cfm = 0.471 L/s.

Where:

- PD = Each applicable pressure drop adjustment from Table C403.2.10.1(2) in. w.c.
- CFMD = The design airflow through each applicable device from Table C403.2.10.1(2) in cubic feet per minute.
- For SI: 1 bhp = 735.5 W, 1 hp = 745.5 W.

**Table C403.2.10.1(2)  
Fan Power Limitation Pressure Drop Adjustment**

Device	Adjustment
<b>Credits</b>	
Fully ducted return and/or exhaust air systems	0.5 inch w.c. (2.15 inches w.c. for laboratory and vivarium systems)
Return and/or exhaust air flow control devices	0.5 inch w.c.
Exhaust filters, scrubbers, or other exhaust treatment	The pressure drop of device calculated at fan system design condition
Particulate filtration credit: MERV 9 - 12	0.5 inch w.c.
Particulate filtration credit: MERV 13 - 15	0.9 inch w.c.
Particulate filtration credit: MERV 16 and greater and electronically enhanced filters	Pressure drop calculated at 2x clean filter pressure drop at fan system design condition
Carbon and other gas-phase air cleaners	Clean filter pressure drop at fan system design condition
Biosafety cabinet	Pressure drop of device at fan system design condition
Energy recovery device, other than coil runaround loop	(2.2 × energy recovery effectiveness) – 0.5 inch w.c. for each airstream
Coil runaround loop	0.6 inch w.c. for each airstream
Evaporative humidifier/cooler in series with another cooling coil	Pressure drop of device at fan system design conditions
Sound attenuation section	0.15 inch w.c.
Exhaust system serving fume hoods	0.35 inch w.c.
Laboratory and vivarium exhaust systems in high-rise buildings	0.25 inch w.c./100 feet of vertical duct exceeding 75 feet

w.c. = water column.  
For SI: 1 inch w.c.= 249 Pa, 1 inch= 25.4 mm.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION**WAC 51-11C-403293 Section C403.2.11—Heating outside a building.**

**C403.2.11 Heating outside a building.** Systems installed to provide heat outside a building shall be radiant systems.

Such heating systems shall be controlled by an occupancy sensing device or a timer switch, so that the system is automatically deenergized when no occupants are present.

NEW SECTION**WAC 51-11C-403294 Section C403.2.12—System criteria.**

**C403.2.12 System criteria.** For fans and pumps 7.5 hp and greater including custom and packaged air handlers serving variable air volume fan systems, constant volume fans, heating and cooling hydronic pumping systems, pool and service water pumping systems, domestic water pressure boosting systems, cooling tower fan, and other pumps or fans where variable flows are required, there shall be:

1. Variable speed drives; or
2. Other controls and devices that will result in fan and pump motor demand of no more than 30 percent of design wattage at 50 percent of design air volume for fans when static pressure set point equals 1/3 the total design static pressure, and 50 percent of design water flow for pumps, based on manufacturer's certified test data. Variable inlet vanes, throttling valves (dampers), scroll dampers or bypass circuits shall not be allowed.

EXCEPTION: Variable speed devices are not required for motors that serve:

1. Fans or pumps in packaged equipment where variable speed drives are not available as a factory option from the equipment manufacturer.
2. Fans or pumps that are required to operate only for emergency fire-life-safety events (e.g., stairwell pressurization fans, elevator pressurization fans, fire pumps, etc.).

**C403.2.12.1 Heat rejection equipment.** The requirements of this section apply to heat rejection equipment used in comfort cooling systems such as air-cooled condensers, open cooling towers, closed-circuit cooling towers, and evaporative condensers.

EXCEPTION: Heat rejection devices included as an integral part of equipment listed in Tables C403.2.3(1) through C403.2.3(3).

Heat rejection equipment shall have a minimum efficiency performance not less than values specified in Table C403.2.3(8). These requirements apply to all propeller, axial fan and centrifugal fan cooling towers. Table C403.2.3(8) specifies requirements for air-cooled condensers that are within rating conditions specified within the table.

**C403.2.12.1.1 Variable flow controls.** Cooling tower fans 7.5 hp and greater shall have control devices that vary flow by controlling the leaving fluid temperature or condenser temperature/pressure of the heat rejection device.

**C403.2.12.1.2 Limitation on centrifugal fan cooling towers.** Open cooling towers with a combined rated capacity of

1,100 gpm and greater at 95°F condenser water return, 85°F condenser water supply and 75°F outdoor wet-bulb temperature shall meet the energy efficiency requirement for axial fan open circuit cooling towers.

EXCEPTION: Open circuit cooling towers that are ducted (inlet or discharge) or have external sound attenuation that requires external static pressure capability.

**C403.2.12.2 Large volume fan systems.** Single or multiple fan systems serving a zone or adjacent zones without separating walls with total air flow over 10,000 cfm (3,540 L/s) are required to reduce airflow based on space thermostat heating and cooling demand. A variable speed drive shall reduce airflow to a maximum 75 percent of peak airflow or minimum ventilation air requirement as required by Section 403 of the *International Mechanical Code*, whichever is greater.

EXCEPTIONS:

1. Systems where the function of the supply air is for purposes other than temperature control, such as maintaining specific humidity levels or supplying an exhaust system.
2. Dedicated outdoor air supply unit(s) with heat recovery where airflow is equal to the minimum ventilation requirements and other fans cycle off unless heating or cooling is required.
3. An area served by multiple units where designated ventilation units have 50 percent or less of total area airflow and nonventilation unit fans cycle off when heating or cooling is not required.

All air-conditioning equipment and air-handling units with direct expansion cooling and a cooling capacity at AHRI conditions greater than or equal to 110,000 Btu/h that serve single zones shall have their supply fans controlled by two-speed motors or variable speed drives. At cooling demands less than or equal to 50 percent, the supply fan controls shall be able to reduce the airflow to no greater than the larger of the following:

1. Two-thirds of the full fan speed; or
2. The volume of outdoor air required to meet the ventilation requirements of Section 403 of the *International Mechanical Code*.

NEW SECTION**WAC 51-11C-403295 Section C403.2.13—Electric motor efficiency.**

**C403.2.13 Electric motor efficiency.** Design A and B squirrel-cage, T-frame induction permanently wired polyphase motors of 1 hp or more having synchronous speeds of 3,600, 1,800 and 1,200 rpm shall have a nominal full-load motor efficiency no less than the corresponding values for energy efficient motors provided in NEMA Standard MG-1.

EXCEPTIONS:

1. Motors used in systems designed to use more than one speed of a multi-speed motor.
2. Motors used as a component of the equipment meeting the minimum equipment efficiency requirements of Section C403.2.3 and Tables C403.2.3(1) through C403.2.3(9) provided that the motor input is included when determining the equipment efficiency.
3. Motors that are an integral part of specialized process equipment.
4. Where the motor is integral to a listed piece of equipment for which no complying motor has been approved.

Fan motors less than 1 hp in series terminal units shall be electronically commutated motors, or shall have a minimum motor efficiency of 65 percent when rated in accordance with NEMA Standard MG-1 at full load rating conditions.

**NEW SECTION**

**WAC 51-11C-40330 Section C403.3—Simple HVAC systems and equipment.**

**C403.3 Simple HVAC systems and equipment (Prescriptive).** This section applies to unitary or packaged HVAC systems listed in Tables C403.2.3(1) through C403.2.3(8), each serving one *zone* and controlled by a single thermostat in the *zone* served. It also applies to two-pipe heating systems serving one or more *zones*, where no cooling system is installed.

To qualify as a simple system, systems shall have no active humidification or simultaneous heating and cooling and shall be one of the following:

1. Air cooled, constant volume packaged equipment, which provide heating, cooling or both, and require only external connection to duct work and energy services with cooling capacity of 135,000 Btu/h or less.
2. Air cooled, constant volume split systems, which provide heating, cooling or both, with cooling capacity of 84,000 Btu/h or less.
3. Heating only systems which have a capacity of less than 1,000 cfm or which have a minimum outside air supply of less than 30 percent of the total air circulation.

The combined airflow rate of all simple systems serving single rooms must be less than 10,000 cfm or they do not qualify as simple systems.

**NEW SECTION**

**WAC 51-11C-40331 Section C403.3.1—Economizers.**

**C403.3.1 Economizers.** Each cooling system that has a fan shall include an air economizer meeting the requirements of Sections C403.3.1.1 through C403.3.1.1.4.

EXCEPTION: Economizers are not required for the systems listed below:

1. Qualifying small equipment: This exception shall not be used for unitary cooling equipment installed outdoors or in a mechanical room adjacent to the outdoors. This exception is allowed to be used for other cooling units and split systems with a total cooling capacity rated in accordance with Section C403.2.3 of less than 33,000 Btu/h (hereafter referred to as qualifying small systems) provided that these are high-efficiency cooling equipment with SEER and EER values more than 15 percent higher than minimum efficiencies listed in Tables C403.2.3 (1) through (3), in the appropriate size category, using the same test procedures. Equipment shall be listed in the appropriate certification program to qualify for this exception. The total capacity of all qualifying small equipment without economizers shall not exceed 72,000 Btu/h per building, or 5 percent of its air economizer capacity, whichever is greater. That portion of the equipment serving residential occupancies is not included in determining the total capacity of all units without economizers in a building. Redundant units are not counted in the capacity limitations. This exception shall not be used for the shell-and-core permit or for

the initial tenant improvement or for Total Building Performance.

2. Systems with dehumidification that affect other systems so as to increase the overall building energy consumption. New humidification equipment shall comply with Section C403.2.3.4.
3. For residential occupancies, cooling units installed outdoors or in a mechanical room adjacent to outdoors with a total cooling capacity less than 20,000 Btu/h and other cooling units with a total cooling capacity less than 54,000 Btu/h provided that these are high-efficiency cooling equipment with IEER, SEER, and EER values more than 15 percent higher than minimum efficiencies listed in Tables C403.2.3 (1) through (10), in the appropriate size category, using the same test procedures. Equipment shall be listed in the appropriate certification program to qualify for this exception. For split systems and VRF systems, compliance is based on the cooling capacity of individual fan coil units.
4. Where the cooling *efficiency* meets or exceeds the *efficiency* requirements in Table C403.3.1(2).

**Table C403.3.1(2)  
Equipment Efficiency Performance  
Exception for Economizers**

Climate Zones	Cooling Equipment Performance Improvement (EER OR IPLV)
2B	10% Efficiency Improvement
3B	15% Efficiency Improvement
4B	20% Efficiency Improvement

**C403.3.1.1 Air economizers.** Air economizers shall comply with Sections C403.3.1.1.1 through C403.3.1.1.4.

**C403.3.1.1.1 Design capacity.** Air economizer systems shall be capable of modulating *outdoor air* and return air dampers to provide up to 100 percent of the design supply air quantity as *outdoor air* for cooling.

**C403.3.1.1.2 Control signal.** Economizer dampers shall be capable of being sequenced with the mechanical cooling equipment and shall not be controlled by only mixed air temperature.

EXCEPTION: The use of mixed air temperature limit control shall be permitted for systems controlled from space temperature (such as single *zone* systems).

**C403.3.1.1.3 High-limit shutoff.** Air economizers shall be capable of automatically reducing *outdoor air* intake to the design minimum *outdoor air* quantity when *outdoor air* intake will no longer reduce cooling energy usage. High-limit shutoff control types for specific climates shall be chosen from Table C403.3.1.1.3(1). High-limit shutoff control settings for these control types shall be those specified in Table C403.3.1.1.3(2).

**C403.3.1.1.4 Relief of excess outdoor air.** Systems shall be capable of relieving excess *outdoor air* during air economizer operation to prevent over-pressurizing the building. The relief air outlet shall be located to avoid recirculation into the building.

**NEW SECTION**

**WAC 51-11C-40332 Section C403.3.2—Hydronic system controls.**

**C403.3.2 Hydronic system controls.** Hydronic systems of at least 300,000 Btu/h (87,930 W) design output capacity supplying heated and chilled water to comfort conditioning systems shall include controls that meet the requirements of Section C403.4.3.

**NEW SECTION**

**WAC 51-11C-40340 Section C403.4—Complex HVAC systems and equipment.**

**C403.4 Complex HVAC systems and equipment (prescriptive).** This section applies to HVAC equipment and systems not covered in Section C403.3.

For buildings with a total equipment cooling capacity of 300 tons and above, the equipment shall comply with one of the following:

1. No one unit shall have a cooling capacity of more than 2/3 of the total installed cooling equipment capacity;
2. The equipment shall have a variable speed drive; or
3. The equipment shall have multiple compressors.

**NEW SECTION**

**WAC 51-11C-40341 Section C403.4.1—Economizers.**

**C403.4.1 Economizers.** Air economizers shall be provided on all new systems including those serving computer server rooms, electronic equipment, radio equipment, and telephone switchgear. Economizers shall comply with Sections C403.4.1.1 through C403.4.1.4.

**EXCEPTIONS:**

1. Water-cooled refrigeration equipment serving chilled beams and chilled ceiling space cooling systems only which are provided with a water economizer meeting the requirements of Section C403.4.1. Water economizer capacity per building shall not exceed 500 tons. This exception shall not be used for Total Building Performance.
2. Systems complying with all of the following criteria:
  - 2.1. Consist of multiple water source heat pumps connected to a common water loop;
  - 2.2. Have a minimum of 60 percent air economizer;
  - 2.3. Have water source heat pumps with an EER at least 15 percent higher for cooling and a COP at least 15 percent higher for heating than that specified in Section C403.2.3;
  - 2.4. Where provided, have a central boiler or furnace efficiency of 90 percent minimum for units up to 199,000 Btu/h; and
  - 2.5. Provide heat recovery with a minimum 50 percent heat recovery effectiveness as defined in Section C403.2.6 to preheat the outside air supply.
3. For Group R occupancies, cooling units installed outdoors or in a mechanical room adjacent to outdoors with a total cooling capacity less than 20,000 Btu/h and other cooling units with a total cooling capacity less than 54,000 Btu/h provided that these are high-efficiency cooling equipment with SEER and EER values more than 15 percent higher than minimum efficiencies listed in Tables C403.2.3 (1) through (3), in the appropriate size category, using the same test procedures. Equipment shall be listed in the appropriate certification program to qualify for this exception. For split systems, compliance is based on the cooling capacity of individual fan coil units.
4. Equipment used to cool any dedicated server room, electronic equipment room or telecom switch room provided that they completely comply with Option a, b, or c in the table below. The total capacity of all systems without economizers shall not exceed 240,000 Btu/h per building or 10 percent of its air economizer capacity, whichever is greater. This exception shall not be used for Total Building Performance.

	<b>Equipment Type</b>	<b>Higher Equipment Efficiency</b>	<b>Part-Load Control</b>	<b>Economizer</b>
Option a	Tables C403.2.3(1) and C403.2.3(2) <sup>a</sup>	+15% <sup>b</sup>	Required over 85,000 Btu/h <sup>c</sup>	None Required
Option b	Tables C403.2.3(1) and C403.2.3(2) <sup>a</sup>	+5% <sup>d</sup>	Required over 85,000 Btu/h <sup>c</sup>	Waterside Economizer
Option c	ASHRAE Standard 127 <sup>f</sup>	+0% <sup>g</sup>	Required over 85,000 Btu/h <sup>c</sup>	Waterside Economizer

Notes for Exception 5:

<sup>a</sup>For a system where all of the cooling equipment is subject to the AHRI standards listed in Tables C403.2.3(1) and C403.2.3(2), the system shall comply with all of the following (note that if the system contains any cooling equipment that exceeds the capacity limits in Table C403.2.3(1) or C403.2.3(2), or if the system contains any cooling equipment that is not included in Table C403.2.3(1) or C403.2.3(2), then the system is not allowed to use this option).

<sup>b</sup>The cooling equipment shall have an EER value and an IPLV value that is a minimum of 15 percent greater than the value listed in Tables C403.2.3(1) and C403.2.3(2) (1.15 x values in Tables C403.2.3(1) and C403.2.3(2)).

<sup>c</sup>For units with a total cooling capacity over 85,000 Btu/h, the system shall utilize part-load capacity control schemes that are able to modulate to a part-load capacity of 50 percent of the load or less that results in the compressor operating at the same or higher EER at part loads than at full load (e.g., minimum of two-stages of compressor unloading such as cylinder unloading, two-stage scrolls, dual tandem scrolls, but hot gas bypass is not credited as a compressor unloading system).

<sup>d</sup>The cooling equipment shall have an EER value and an IPLV value that is a minimum of 5 percent greater than the value listed in Tables C403.2.3(1) and C403.2.3(2) (1.05 x values in Tables C403.2.3(1) and C403.2.3(2)).

<sup>e</sup>The system shall include a water economizer in lieu of air economizer. Water economizers shall be capable of providing the total concurrent cooling load served by the connected terminal equipment lacking airside economizer, at outside air temperatures of 50°F dry-bulb/45°F wet-bulb and below. For this calculation, all factors including solar and internal load shall be the same as those used for peak load calculations, except for the outside temperatures. The equipment shall be served by a dedicated condenser water system unless a nondedicated condenser water system exists that can provide appropriate water temperatures during hours when waterside economizer cooling is available.

<sup>f</sup>For a system where all cooling equipment is subject to ASHRAE Standard 127-2007.

<sup>g</sup>The cooling equipment subject to the ASHRAE Standard 127-2007 shall have an EER value and an IPLV value that is equal or greater than the value listed in Tables C403.2.3(1) and

C403.2.3(2) when determined in accordance with the rating conditions ASHRAE Standard 127-2007 (i.e., not the rating conditions in AHRI Standard 210/240 or 340/360). This information shall be provided by an independent third party.

5. Variable refrigerant flow (VRF) systems, multiple-zone split-system heat pumps, consisting of multiple, individually metered indoor units with multi-speed fan motors, served on a single common refrigeration circuit with an exterior reverse-cycle heat pump with variable speed compressor(s) and variable speed condenser fan(s). These systems shall also be capable of providing simultaneous heating and cooling operation, where recovered energy from the indoor units operating in one mode can be transferred to one or more indoor units operating in the other mode, and shall serve at least 20 percent internal (no perimeter wall within 12') and 20 percent perimeter zones (as determined by conditioned floor area) and the outdoor unit shall be at least 65,000 Btu/h in total capacity. Systems utilizing this exception shall have 50 percent heat recovery effectiveness as defined by Section C403.2.6 on the outside air. For the purposes of this exception, dedicated server rooms, electronic equipment rooms or telecom switch rooms are not considered perimeter zones. This exception shall be limited to buildings of 60,000 square feet and less.

**C403.4.1.1 Design capacity.** Water economizer systems shall be capable of cooling supply air by indirect evaporation and providing up to 100 percent of the expected system cooling load at *outdoor air* temperatures of 50°F dry-bulb (10°C dry-bulb)/45°F wet-bulb (7.2°C wet-bulb) and below.

EXCEPTION: Systems in which a water economizer is used and where dehumidification requirements cannot be met using outdoor air temperatures of 50°F dry-bulb (10°C dry-bulb)/45°F wet-bulb (7.2°C wet-bulb) shall satisfy 100 percent of the expected system cooling load at 45°F dry-bulb (7.2°C dry-bulb)/40°F wet-bulb (4.5°C wet-bulb).

**C403.4.1.2 Maximum pressure drop.** Precooling coils and water-to-water heat exchangers used as part of a water economizer system shall either have a waterside pressure drop of less than 15 feet (4572 mm) of water or a secondary loop shall be created so that the coil or heat exchanger pressure drop is not seen by the circulating pumps when the system is in the normal cooling (noneconomizer) mode.

**C403.4.1.3 Integrated economizer control.** Economizer systems shall be integrated with the mechanical cooling system and be capable of providing partial cooling even where additional mechanical cooling is required to meet the remainder of the cooling load.

EXCEPTIONS:

1. Direct expansion systems that include controls that reduce the quantity of *outdoor air* required to prevent coil frosting at the lowest step of compressor unloading, provided this lowest step is no greater than 25 percent of the total system capacity.
2. Individual direct expansion units that have a rated cooling capacity less than 54,000 Btu/h (15,827 W) and use nonintegrated economizer controls that preclude simultaneous operation of the economizer and mechanical cooling.

**C403.4.1.4 Economizer heating system impact.** HVAC system design and economizer controls shall be such that economizer operation does not increase the building heating energy use during normal operation.

EXCEPTION: Economizers on VAV systems that cause *zone* level heating to increase due to a reduction in supply air temperature.

## NEW SECTION

### WAC 51-11C-40342 Section C403.4.2—VAV fan control.

**C403.4.2 Variable air volume (VAV) fan control.** Individual VAV fans with motors of 7.5 horsepower (5.6 kW) or greater shall be:

1. Driven by a mechanical or electrical variable speed drive;
  2. Driven by a vane-axial fan with variable-pitch blades;
- or

3. The fan shall have controls or devices that will result in fan motor demand of no more than 30 percent of their design wattage at 50 percent of design airflow when static pressure set point equals one-third of the total design static pressure, based on manufacturer's certified fan data.

**C403.4.2.1 Static pressure sensor location.** Static pressure sensors used to control VAV fans shall be placed in a position such that the controller setpoint is no greater than one-third the total design fan static pressure, except for systems with *zone* reset control complying with Section C403.4.2.2. For sensors installed downstream of major duct splits, at least one sensor shall be located on each major branch to ensure that static pressure can be maintained in each branch.

**C403.4.2.2 Set points for direct digital control.** For systems with direct digital control of individual *zone* boxes reporting to the central control panel, the static pressure setpoint shall be reset based on the *zone* requiring the most pressure, i.e., the setpoint is reset lower until one *zone* damper is nearly wide open.

## NEW SECTION

### WAC 51-11C-40343 Section C403.4.3—Hydronic systems controls.

**C403.4.3 Hydronic systems controls.** The heating of fluids that have been previously mechanically cooled and the cooling of fluids that have been previously mechanically heated shall be limited in accordance with Sections C403.4.3.1 through C403.4.3.3. Hydronic heating systems comprised of multiple-packaged boilers and designed to deliver conditioned water or steam into a common distribution system shall include automatic controls capable of sequencing operation of the boilers. Hydronic heating systems comprised of a single boiler and greater than 500,000 Btu/h (146,550 W) input design capacity shall include either a multi-staged or modulating burner.

**C403.4.3.1 Three-pipe system.** Hydronic systems that use a common return system for both hot water and chilled water are prohibited.

**C403.4.3.2 Two-pipe changeover system.** Systems that use a common distribution system to supply both heated and chilled water shall be designed to allow a dead band between changeover from one mode to the other of at least 15°F (8.3°C) outside air temperatures; be designed to and provided with controls that will allow operation in one mode for at least 4 hours before changing over to the other mode; and be provided with controls that allow heating and cooling supply

temperatures at the changeover point to be no more than 30°F (16.7°C) apart.

**C403.4.3.3 Hydronic (water loop) heat pump systems.** Hydronic heat pump systems shall comply with Sections C403.4.3.3.1 through C403.4.3.3.3.

**C403.4.3.3.1 Temperature dead band.** Hydronic heat pumps connected to a common heat pump water loop with central devices for heat rejection and heat addition shall have controls that are capable of providing a heat pump water supply temperature dead band of at least 20°F (11.1°C) between initiation of heat rejection and heat addition by the central devices.

EXCEPTION: Where a system loop temperature optimization controller is installed and can determine the most efficient operating temperature based on real time conditions of demand and capacity, dead bands of less than 20°F (11°C) shall be permitted.

**C403.4.3.3.2 Heat rejection.** Heat rejection equipment shall comply with Sections C403.4.3.3.2.1 and C403.4.3.3.2.2.

EXCEPTION: Where it can be demonstrated that a heat pump system will be required to reject heat throughout the year.

**C403.4.3.3.2.1 Climate Zones 3 and 4.** For Climate Zones 3 and 4:

1. If a closed-circuit cooling tower is used directly in the heat pump loop, either an automatic valve shall be installed to bypass all but a minimal flow of water around the tower, or lower leakage positive closure dampers shall be provided.

2. If an open-circuit tower is used directly in the heat pump loop, an automatic valve shall be installed to bypass all heat pump water flow around the tower.

3. If an open- or closed-circuit cooling tower is used in conjunction with a separate heat exchanger to isolate the cooling tower from the heat pump loop, then heat loss shall be controlled by shutting down the circulation pump on the cooling tower loop.

**C403.4.3.3.2.2 Climate Zones 5 through 8.** For Climate Zones 5 through 8, if an open- or closed-circuit cooling tower is used, then a separate heat exchanger shall be provided to isolate the cooling tower from the heat pump loop, and heat loss shall be controlled by shutting down the circulation pump on the cooling tower loop and providing an automatic valve to stop the flow of fluid.

**C403.4.3.3.3 Isolation valve.** Each hydronic heat pump on the hydronic system having a total pump system power exceeding 10 horsepower (hp) (7.5 kW) shall have a two-way (but not three-way) valve. For the purposes of this section, pump system power is the sum of the nominal power demand (i.e., nameplate horsepower at nominal motor efficiency) of motors of all pumps that are required to operate at design conditions to supply fluid from the heating or cooling source to all heat transfer devices (e.g., coils, heat exchanger) and return it to the source. This converts the system into a variable flow system and, as such, the primary circulation pumps shall comply with the variable flow requirements in Section C403.4.3.7.

**C403.4.3.4 Part load controls.** Hydronic systems greater than or equal to 300,000 Btu/h (87,930 W) in design output

capacity supplying heated or chilled water to comfort conditioning systems shall include controls that have the capability to:

1. Automatically reset the supply-water temperatures using zone-return water temperature, building-return water temperature, or outside air temperature as an indicator of building heating or cooling demand. The temperature shall be capable of being reset by at least 25 percent of the design supply-to-return water temperature difference; and

2. Reduce system pump flow by at least 50 percent of design flow rate utilizing adjustable speed drive(s) on pump(s), or multiple-staged pumps where at least one-half of the total pump horsepower is capable of being automatically turned off or control valves designed to modulate or step down, and close, as a function of load, or other *approved* means.

Heat pump loops with a total pump system power greater than 3 hp (2.2 kw) shall have controls meeting the requirements of item 2, above.

**C403.4.3.5 Pump isolation.** Chilled water plants including more than one chiller shall have the capability to reduce flow automatically through the chiller plant when a chiller is shut down and automatically shut off flow to chillers that are shut down. Chillers piped in series for the purpose of increased temperature differential shall be considered as one chiller.

EXCEPTION: Chillers that are piped in series for the purpose of increased temperature differential.

Boiler plants including more than one boiler shall have the capability to reduce flow automatically through the boiler plant when a boiler is shut down and automatically shut off flow to chillers that are shut down.

**C403.4.3.6 Variable flow controls.** Individual pumps requiring variable speed control per Section C403.4.9 shall be controlled in one of the following manners:

1. For systems having a combined pump motor horsepower less than or equal to 20 hp (15 kW) and without direct digital control of individual coils, pump speed shall be a function of either:

1.1. Required differential pressure; or

1.2. Reset directly based on zone hydronic demand, or other zone load indicators; or

1.3. Reset directly based on pump power and pump differential pressure.

2. For systems having a combined pump motor horsepower that exceeds 20 hp (15 kW) or smaller systems with direct digital control, pump speed shall be a function of either:

2.1. The static pressure set point as reset based on the valve requiring the most pressure; or

2.2. Directly controlled based on zone hydronic demand.

NEW SECTION

**WAC 51-11C-403431 Table C403.4.3.1.1.3—High limit shutoff controls.**

**Table C403.3.1.1.3(1)  
High-limit Shutoff Control Options for Air Economizers**

Climate Zones	Allowed Control Types	Prohibited Control Types
1B, 2B, 3B, 3C, 4B, 4C, 5B, 5C, 6B, 7, 8	Fixed dry-bulb Differential dry-bulb Electronic enthalpy <sup>a</sup> Differential enthalpy Dew-point and dry-bulb temperatures	Fixed enthalpy
1A, 2A, 3A, 4A	Fixed dry-bulb Fixed enthalpy Electronic enthalpy <sup>a</sup> Differential enthalpy Dew-point and dry-bulb temperatures	Differential dry-bulb
All other climates	Fixed dry-bulb Differential dry-bulb Fixed enthalpy Electronic enthalpy <sup>a</sup> Differential enthalpy Dew-point and dry-bulb temperatures	—

<sup>a</sup>Electronic enthalpy controllers are devices that use a combination of humidity and dry-bulb temperature in their switching algorithm.

**Table C403.3.1.1.3(2)  
High-limit Shutoff Control Setting for Air Economizers**

Device Type	Climate Zone	Required High Limit (Economizer off When):	
		Equation	Description
Fixed dry-bulb	1B, 2B, 3B, 3C, 4B, 4C, 5B, 5C, 6B, 7, 8	$TOA > 75^{\circ}F$	Outdoor air temperature exceeds 75°F
	5A, 6A, 7A	$TOA > 70^{\circ}F$	Outdoor air temperature exceeds 70°F
	All other zones	$TOA > 65^{\circ}F$	Outdoor air temperature exceeds 65°F
Differential dry-bulb	1B, 2B, 3B, 3C, 4B, 4C, 5A, 5B, 5C, 6A, 6B, 7, 8	$TOA > TRA$	Outdoor air temperature exceeds return air temperature
Fixed enthalpy	All	$hOA > 28 \text{ Btu/lb}^a$	Outdoor air enthalpy exceeds 28 Btu/lb of dry air <sup>a</sup>
Electronic enthalpy	All	$(TOA, RHOA) > A$	Outdoor air temperature/RH exceeds the "A" setpoint curve <sup>b</sup>
Differential enthalpy	All	$hOA > Hra$	Outdoor air enthalpy exceeds return air enthalpy
Dew-point and dry-bulb temperatures	All	$DPOA > 55^{\circ}F$ or $TOA > 75^{\circ}F$	Outdoor air dry-bulb exceeds 75°F or outside dew-point exceeds 55°F (65 gr/lb)

For SI:  $^{\circ}C = (^{\circ}F - 32) \times 5/9$ , 1 Btu/lb = 2.33 kJ/kg.

<sup>a</sup> At altitudes substantially different than sea level, the fixed enthalpy limit shall be set to the enthalpy value at 75°F and 50 percent relative humidity. As an example, at approximately 6,000 feet elevation the fixed enthalpy limit is approximately 30.7 Btu/lb.

<sup>b</sup> Setpoint "A" corresponds to a curve on the psychometric chart that goes through a point at approximately 75°F and 40 percent relative humidity and is nearly parallel to dry-bulb lines at low humidity levels and nearly parallel to enthalpy lines at high humidity levels.

NEW SECTION

**WAC 51-11C-40344 Section C403.4.4—Heat rejection equipment fan speed control.**

**C403.4.4 Heat rejection equipment fan speed control.** Each fan powered by a motor of 7.5 hp (5.6 kW) or larger shall have controls that automatically change the fan speed to control the leaving fluid temperature or condensing temperature/pressure of the heat rejection device.

NEW SECTION

**WAC 51-11C-40345 Section C403.4.5—Requirements for complex mechanical systems serving multiple zones.**

**C403.4.5 Requirements for complex mechanical systems serving multiple zones.** Sections C403.4.5.1 through C403.4.5.4 shall apply to complex mechanical systems serving multiple zones. Supply air systems serving multiple zones shall be VAV systems which, during periods of occupancy, are designed and capable of being controlled to reduce



primary air supply to each *zone* to one of the following before reheating, recooling or mixing takes place:

1. Thirty percent of the maximum supply air to each *zone*.
2. Three hundred cfm (142 L/s) or less where the maximum flow rate is less than 10 percent of the total fan system supply airflow rate.
3. The minimum ventilation requirements of Chapter 4 of the *International Mechanical Code*.

EXCEPTION: The following define where individual *zones* or where entire air distribution systems are exempted from the requirement for VAV control:

1. Reserved.
2. *Zones* or supply air systems where at least 75 percent of the energy for reheating or for providing warm air in mixing systems is provided from a site-recovered or site-solar energy source.
3. *Zones* where special humidity levels are required to satisfy process needs.
4. *Zones* with a peak supply air quantity of 300 cfm (142 L/s) or less and where the flow rate is less than 10 percent of the total fan system supply airflow rate.
5. *Zones* where the volume of air to be reheated, recooled or mixed is no greater than the volume of outside air required to meet the minimum ventilation requirements of Chapter 4 of the *International Mechanical Code*.
6. *Zones* or supply air systems with thermostatic and humidistatic controls capable of operating in sequence the supply of heating and cooling energy to the *zones* and which are capable of preventing reheating, recooling, mixing or simultaneous supply of air that has been previously cooled, either mechanically or through the use of economizer systems, and air that has been previously mechanically heated.

**C403.4.5.1 Single duct variable air volume (VAV) systems, terminal devices.** Single duct VAV systems shall use terminal devices capable of reducing the supply of primary supply air before reheating or recooling takes place.

**C403.4.5.2 Dual duct and mixing VAV systems, terminal devices.** Systems that have one warm air duct and one cool air duct shall use terminal devices which are capable of reducing the flow from one duct to a minimum before mixing of air from the other duct takes place.

**C403.4.5.3 Reserved.**

**C403.4.5.4 Supply-air temperature reset controls.** Multiple *zone* HVAC systems shall include controls that automatically reset the supply-air temperature in response to representative building loads, or to outdoor air temperature. The controls shall be capable of resetting the supply air temperature at least 25 percent of the difference between the design supply-air temperature and the design room air temperature.

EXCEPTIONS:

1. Systems that prevent reheating, recooling or mixing of heated and cooled supply air.
2. Seventy-five percent of the energy for reheating is from site-recovered or site solar energy sources.
3. *Zones* with peak supply air quantities of 300 cfm (142 L/s) or less.

NEW SECTION

**WAC 51-11C-40346 Section C403.4.6—Heat recovery for service water heating.**

**C403.4.6 Heat recovery for service water heating.** Condenser heat recovery shall be installed for heating or reheating of service hot water provided the facility operates 24 hours a day, the total installed heat capacity of water cooled systems exceeds 1,500,000 Btu/hr of heat rejection, and the design service water heating load exceeds 250,000 Btu/hr.

The required heat recovery system shall have the capacity to provide the smaller of:

1. Sixty percent of the peak heat rejection load at design conditions; or
2. The preheating required to raise the peak service hot water draw to 85°F (29°C).

EXCEPTIONS:

1. Facilities that employ condenser heat recovery for space heating or reheat purposes with a heat recovery design exceeding 30 percent of the peak water-cooled condenser load at design conditions.
2. Facilities that provide 60 percent of their service water heating from site solar or site recovered energy or from other sources.

NEW SECTION

**WAC 51-11C-40347 Section C403.4.7—Hot gas bypass limitation.**

**C403.4.7 Hot gas bypass limitation.** Cooling systems shall not use hot gas bypass or other evaporator pressure control systems unless the system is designed with multiple steps of unloading or continuous capacity modulation. The capacity of the hot gas bypass shall be limited as indicated in Table C403.4.7.

EXCEPTION: Unitary packaged systems with cooling capacities not greater than 90,000 Btu/h (26,379 W).

**Table C403.4.7  
Maximum Hot Gas Bypass Capacity**

Rated Capacity	Maximum Hot Gas Bypass Capacity (% of total capacity)
≤ 240,000 Btu/h	50
> 240,000 Btu/h	25

For SI: 1 British thermal unit per hour = 0.2931 W.

NEW SECTION

**WAC 51-11C-40350 Section C403.5—Walk-in coolers and freezers.**

**C403.5 Walk-in coolers and walk-in freezers.** Walk-in coolers and walk-in freezers shall comply with all of the following:

1. Anti-sweat heaters without anti-sweat heater controls shall have a total door rail, glass, and frame heater power draw of less than or equal to 7.1 watts per square foot of door opening for *walk-in freezers*, and 3.0 watts per square foot of door opening for *walk-in coolers*.
2. Anti-sweat heater controls shall reduce the energy use of the anti-sweat heater as a function of the relative humidity

in the air outside the door or to the condensation on the inner glass pane.

3. Evaporator fan motors that are less than 1 horsepower and less than 460 volts shall use electronically commutated motors (brushless direct current motors) or 3-phase motors.

4. Condenser fan motors that are less than 1 horsepower shall use electronically commutated motors, permanent split capacitor-type motors or 3-phase motors.

NEW SECTION

**WAC 51-11C-40360 Section C403.6—Refrigerated warehouse coolers and freezers.**

**C403.6 Refrigerated warehouse coolers and refrigerated warehouse freezers.** Refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with all of the following:

1. Evaporator fan motors that are less than 1 horsepower and less than 460 volts shall use electronically commutated motors (brushless direct current motors) or 3-phase motors.

2. Condenser fan motors that are less than 1 horsepower shall use electronically commutated motors, permanent split capacitor-type motors or 3-phase motors.

NEW SECTION

**WAC 51-11C-404021 Table C404.2—Minimum performance of water-heating equipment.**

**Table C404.2  
Minimum Performance of Water-Heating Equipment**

Equipment Type	Size Category (input)	Subcategory or Rating Condition	Performance Required <sup>a, b</sup>	Test Procedure
Water heaters, electric	≤ 12 kW	Resistance	0.97 - 0.00 132V, EF	DOE 10 C.F.R. Part 430
	> 12 k	W Resistance	1.73V + 155 SL, Btu/h	ANSI Z21.10.3
	≤ 24 amps and ≤ 250 volts	Heat pump	0.93 - 0.00 132V, EF	DOE 10 C.F.R. Part 430
Storage water heaters, gas	≤ 75,000 Btu/h	≥ 20 gal	0.67 - 0.0019V, EF	DOE 10 C.F.R. Part 430
	> 75,000 Btu/h and ≤ 155,000 Btu/h	< 4,000 Btu/h/gal	80% Et (Q/800 + 110√V) SL, Btu/h	ANSI Z21.10.3
	> 155,000 Btu/h	< 4,000 Btu/h/gal	80% Et (Q/800 + 110√V) SL, Btu/h	
Instantaneous water heaters, gas	> 50,000 Btu/h and < 200,000 Btu/h <sup>c</sup>	≥ 4,000 (Btu/h)/gal and < 2 gal	0.62 - 0.00 19V, EF	DOE 10 C.F.R. Part 430
	≥ 200,000 Btu/h	≥ 4,000 Btu/h/gal and < 10 gal	80% Et	ANSI Z21.10.3
	≥ 200,000 Btu/h	≥ 4,000 Btu/h/gal and ≤ 10 gal	80% Et (Q/800 + 110√V) SL, Btu/h	
Storage water heaters, oil	≤ 105,000 Btu/h	≥ 20 gal	0.59 - 0.0019V, EF	DOE 10 C.F.R. Part 430
	≥ 105,000 Btu/h	< 4,000 Btu/h/gal	78% Et (Q/800 + 110√V) SL, Btu/h	ANSI Z21.10.3
Instantaneous water heaters, oil	≤ 210,000 Btu/h	≥ 4,000 Btu/h/gal and < 2 gal	0.59 - 0.0019V, EF	DOE 10 C.F.R. Part 430
	> 210,000 Btu/h	≥ 4,000 Btu/h/gal and < 10 gal	80% Et	ANSI Z21.10.3
	> 210,000 Btu/h	≥ 4,000 Btu/h/gal and ≤ 10 gal	78% Et (Q/800 + 110√V) SL, Btu/h	
Hot water supply boilers, gas and oil	≥ 300,000 Btu/h and < 12,500,000 Btu/h	≥ 4,000 Btu/h/gal and < 10 gal	80% Et	ANSI Z21.10.3
Hot water supply boilers, gas	≥ 300,000 Btu/h and < 12,500,000 Btu/h	≥ 4,000 Btu/h/gal and ≥ 10 gal	80% Et (Q/800 + 110√V) SL, Btu/h	

NEW SECTION

**WAC 51-11C-40400 Section C404—Service water heating (Mandatory).**

NEW SECTION

**WAC 51-11C-40401 Section C404.1—General.**

**C404.1 General.** This section covers the minimum efficiency of, and controls for, service water-heating equipment and insulation of service hot water piping.

NEW SECTION

**WAC 51-11C-40402 Section C404.2—Service water-heating equipment performance efficiency.**

**C404.2 Service water-heating equipment performance efficiency.** Water-heating equipment and hot water storage tanks shall meet the requirements of Table C404.2. The efficiency shall be verified through certification and *listed* under an *approved* certification program, or if no certification program exists, the equipment efficiency ratings shall be supported by data furnished by the manufacturer.

Equipment Type	Size Category (input)	Subcategory or Rating Condition	Performance Required <sup>a, b</sup>	Test Procedure
Hot water supply boilers, oil	> 300,000 Btu/h and < 12,500,000 Btu/h	> 4,000 Btu/h/gal and > 10 gal	78% <i>Et</i> ( $Q/800 + 110/V$ ) SL, Btu/h	
Pool heaters, gas and oil	All	—	78% <i>Et</i>	ASHRAE 146
Heat pump pool heaters	All	—	4.0 COP	AHRI 1160
Unfired storage tanks	All	—	Minimum insulation requirement R-12.5 ( $h \cdot \text{ft}^2 \cdot ^\circ\text{F}/\text{Btu}$ )	(none)

For SI:  $^\circ\text{C} = [(^\circ\text{F}) - 32]/1.8$ , 1 British thermal unit per hour = 0.2931 W, 1 gallon = 3.785 L, 1 British thermal unit per hour per gallon = 0.078 W/L.

<sup>a</sup>Energy factor (EF) and thermal efficiency (*Et*) are minimum requirements. In the EF equation, *V* is the rated volume in gallons.

<sup>b</sup>Standby loss (SL) is the maximum Btu/h based on a nominal 70°F temperature difference between stored water and ambient requirements. In the SL equation, *Q* is the nameplate input rate in Btu/h. In the SL equation for electric water heaters, *V* is the rated volume in gallons. In the SL equation for oil and gas water heaters and boilers, *V* is the rated volume in gallons.

<sup>c</sup>Instantaneous water heaters with input rates below 200,000 Btu/h must comply with these requirements if the water heater is designed to heat water to temperatures 180°F or higher.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11C-40403 Section C404.3—Temperature controls.**

**C404.3 Temperature controls.** Service water-heating equipment shall be provided with controls to allow a setpoint of 110°F (43°C) for equipment serving dwelling units and 90°F (32°C) for equipment serving other occupancies. The outlet temperature of lavatories in public facility rest rooms shall be limited to 110°F (43°C).

NEW SECTION

**WAC 51-11C-40404 Section C404.4—Heat traps.**

**C404.4 Heat traps.** Water-heating equipment not supplied with integral heat traps and serving noncirculating systems shall be provided with heat traps on the supply and discharge piping associated with the equipment.

NEW SECTION

**WAC 51-11C-40405 Section C404.5—Water heater installation.**

**C404.5 Water heater installation.** Electric water heaters in unconditioned spaces or on concrete floors shall be placed on an incompressible, insulated surface with a minimum thermal resistance of R-10.

NEW SECTION

**WAC 51-11C-40406 Section C404.6—Pipe insulation.**

**C404.6 Pipe insulation.** For automatic-circulating hot water and heat-traced systems, piping shall be insulated with not less than 1 inch (25 mm) of insulation having a conductivity not exceeding 0.27 Btu per inch/h  $\times \text{ft}^2 \times ^\circ\text{F}$  (1.53 W per 25 mm/m<sup>2</sup>  $\times \text{K}$ ). The first 8 feet (2438 mm) of piping in nonhot-water-supply temperature maintenance systems served by equipment without integral heat traps shall be insulated with 0.5 inch (12.7 mm) of material having a conductivity not exceeding 0.27 Btu per inch/h  $\times \text{ft}^2 \times ^\circ\text{F}$  (1.53 W per 25 mm/m<sup>2</sup>  $\times \text{K}$ ).

**EXCEPTION:** Heat-traced piping systems shall meet the insulation thickness requirements per the manufacturer's installation instructions. Untraced piping within a heat traced system shall be insulated with not less than 1 inch (25 mm) of insulation having a conductivity not exceeding 0.27 Btu per inch/h  $\times \text{ft}^2 \times ^\circ\text{F}$  (1.53 W per 25 mm/m<sup>2</sup>  $\times \text{K}$ ).

NEW SECTION

**WAC 51-11C-40407 Section C404.7—Hot water system controls.**

**C404.7 Hot water system controls.** Circulating hot water system pumps or heat trace shall be arranged to be turned off either automatically or manually when there is limited hot water demand. Ready access shall be provided to the operating controls.

NEW SECTION

**WAC 51-11C-40408 Section C404.8—Shut-off controls.**

**C404.8 Shut-off controls.** Systems designed to maintain usage temperatures in hot water pipes, such as circulating hot water systems or heat traced pipes shall be equipped with automatic time switches or other controls to turn off the system during periods of nonuse.

NEW SECTION

**WAC 51-11C-40409 Section C404.9—Domestic hot water meters.**

**C404.9 Domestic hot water meters.** Each individual dwelling unit in a Group R-2 multi-family residential occupancy with central service shall be provided with a domestic hot

water meter to allow for domestic hot water billing based on actual domestic hot water usage.

#### NEW SECTION

#### **WAC 51-11C-40410 Section C404.10—Pools and in-ground spas.**

**C404.10 Pools and in-ground permanently installed spas (mandatory).** Pools and in-ground permanently installed spas shall comply with Sections C404.7.1 through C404.7.3.

**C404.10.1 Heaters.** Heat pump pool heaters shall have a minimum COP of 4.0 determined in accordance with ASHRAE Standard 146, Method of Testing for Rating Pool Heaters. Other pool heating equipment shall comply with the applicable efficiencies in Section C404.2.3.

All heaters shall be equipped with a readily *accessible* on-off switch that is mounted outside of the heater to allow shutting off the heater without adjusting the thermostat setting. Gas-fired heaters shall not be equipped with constant burning pilot lights.

**C404.10.2 Time switches.** Time switches or other control method that can automatically turn off and on heaters and pumps according to a preset schedule shall be installed on all heaters and pumps. Heaters, pumps and motors that have built in timers shall be deemed in compliance with this requirement.

EXCEPTIONS:

1. Where public health standards require 24-hour pump operation.
2. Where pumps are required to operate solar- and waste-heat-recovery pool heating systems.

**C404.10.3 Covers.** Heated pools and in-ground permanently installed spas shall be provided with a vapor-retardant cover on or at the water surface. Pools heated to more than 90°F shall have a pool cover with a minimum insulation value of R-12, and the sides and bottom of the pool shall also have a minimum insulation value of R-12.

**C404.10.4 Heat recovery.** Heated indoor swimming pools, spas or hot tubs with water surface area greater than 200 square feet shall provide for energy conservation by an exhaust air heat recovery system that heats ventilation air, pool water or domestic hot water. The heat recovery system shall be capable of decreasing the exhaust air temperature at design heating conditions (80°F indoor) by 36°F (10°C) in Climate Zones 4C and 5B and 48°F (26.7°C) in Climate Zone 6B.

EXCEPTION:

Pools, spas or hot tubs that include system(s) that provide equivalent recovered energy on an annual basis through one of the following methods:

1. Renewable energy;
2. Dehumidification heat recovery;
3. Waste heat recovery; or
4. A combination of these system(s) sources capable of providing at least 70 percent of the heating energy required over an operating season.

#### NEW SECTION

#### **WAC 51-11C-40500 Section C405—Electrical power and lighting systems.**

#### NEW SECTION

#### **WAC 51-11C-40501 Section C405.1—General.**

**C405.1 General (mandatory).** This section covers lighting system controls, the connection of ballasts, the maximum lighting power for interior applications, electrical energy consumption, minimum acceptable lighting equipment for exterior applications, and minimum efficiencies for motors and transformers.

EXCEPTION: Dwelling units within commercial buildings shall not be required to comply with Sections C405.2 through C405.5 provided that a minimum of 50 percent of permanently installed luminaires shall be high-efficacy luminaires.

Walk-in coolers and walk-in freezers shall comply with C405.10. Refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with C405.11.

#### NEW SECTION

#### **WAC 51-11C-40502 Section C405.2—Electrical power and lighting systems.**

**C405.2 Lighting controls (mandatory).** Lighting systems shall be provided with controls as specified in Sections C405.2.1, C405.2.2, C405.2.3, C405.2.4 and C405.2.5.

EXCEPTION: Industrial or manufacturing process areas, as may be required for production and safety.

#### NEW SECTION

#### **WAC 51-11C-405021 Section C405.2.1—Manual lighting controls.**

**C405.2.1 Manual lighting controls.** All buildings shall include manual lighting controls that meet the requirements of Sections C405.2.1.1 and C405.2.1.2.

**C405.2.1.1 Interior lighting controls.** Each area enclosed by walls or floor-to-ceiling partitions shall have at least one manual control for the lighting serving that area. The required controls shall be located within the area served by the controls or be a remote switch that identifies the lights served and indicates their status.

EXCEPTIONS:

1. Areas designated as security or emergency areas that need to be continuously lighted.
2. Lighting in stairways or corridors that are elements of the means of egress.

**C405.2.1.2 Light reduction controls.** Each area that is required to have a manual control shall also allow the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern by at least 50 percent. Lighting reduction shall be achieved by one of the following or other *approved* method:

1. Controlling all lamps or luminaires;
2. Dual switching of alternate rows of luminaires, alternate luminaires or alternate lamps;
3. Switching the middle lamp luminaires independently of the outer lamps; or
4. Switching each luminaire or each lamp.

EXCEPTION: Light reduction controls need not be provided in the following areas and spaces:

1. Areas that have only one luminaire, with rated power less than 100 watts.
2. Areas that are controlled by an occupant-sensing device.
3. Corridors, equipment rooms, storerooms, restrooms, public lobbies, electrical or mechanical rooms.
4. *Sleeping unit* (see Section C405.2.3).
5. Spaces that use less than 0.6 watts per square foot (6.5 W/m<sup>2</sup>).
6. Daylight spaces complying with Section C405.2.2.3.2.

2. The area controlled by the override switch is permitted to exceed 5,000 square feet (465 m<sup>2</sup>), but shall not exceed 20,000 square feet (1860 m<sup>2</sup>).

## NEW SECTION

### **WAC 51-11C-405022 Section C405.2.2—Additional lighting controls.**

**C405.2.2 Additional lighting controls.** Each area that is required to have a manual control shall also have controls that meet the requirements of Sections C405.2.2.1, C405.2.2.2 and C405.2.2.3.

- EXCEPTION: Additional lighting controls need not be provided in the following spaces:
1. *Sleeping units*.
  2. Spaces where patient care is directly provided.
  3. Spaces where an automatic shutoff would endanger occupant safety or security.
  4. Lighting intended for continuous operation.

**C405.2.2.1 Automatic time switch control devices.** Automatic time switch controls shall be installed to control lighting in all areas of the building. Automatic time switches shall have a minimum 7 day clock and be capable of being set for 7 different day types per week and incorporate an automatic holiday "shut-off" feature, which turns off all loads for at least 24 hours and then resumes normally scheduled operations. Automatic time switches shall also have program back-up capabilities, which prevent the loss of program and time settings for at least 10 hours, if power is interrupted.

- EXCEPTIONS:
1. Emergency egress lighting does not need to be controlled by an automatic time switch.
  2. Lighting in spaces controlled by occupancy sensors does not need to be controlled by automatic time switch controls.

The automatic time switch control device shall include an override switching device that complies with the following:

1. The override switch shall be in a readily accessible location;
2. The override switch shall be located where the lights controlled by the switch are visible; or the switch shall provide a mechanism which announces the area controlled by the switch;
3. The override switch shall permit manual operation;
4. The override switch, when initiated, shall permit the controlled lighting to remain on for a maximum of 2 hours; and
5. Any individual override switch shall control the lighting for a maximum area of 5,000 square feet (465 m<sup>2</sup>).

- EXCEPTION: Within malls, arcades, auditoriums, single tenant retail spaces, industrial facilities and arenas:
1. The time limit shall be permitted to exceed 2 hours provided the override switch is a captive key device; and

**C405.2.2.2 Occupancy sensors.** Occupancy sensors shall be installed in all classrooms, conference/meeting rooms, employee lunch and break rooms, private offices, restrooms, warehouse spaces, storage rooms and janitorial closets, and other spaces 300 square feet (28 m<sup>2</sup>) or less enclosed by floor-to-ceiling height partitions. These automatic control devices shall be installed to automatically turn off lights within 30 minutes of all occupants leaving the space, and shall either be manual on or shall be controlled to automatically turn the lighting on to not more than 50 percent power.

- EXCEPTION: Full automatic-on controls shall be permitted to control lighting in public corridors, stairways, restrooms, primary building entrance areas and lobbies, and areas where manual-on operation would endanger the safety or security of the room or building occupants.

**C405.2.2.3 Daylight zone control.** Daylight zones shall be designed such that lights in the daylight zone are controlled independently of general area lighting and are controlled in accordance with Section C405.2.2.3.2. Each daylight control zone shall not exceed 2,500 square feet (232 m<sup>2</sup>). Contiguous daylight zones adjacent to vertical fenestration are allowed to be controlled by a single controlling device provided that they do not include zones facing more than two adjacent cardinal orientations (i.e., north, east, south, west). The primary daylight zone shall be controlled separately from the secondary daylight zone. Daylight zones under skylights more than 15 feet (4572 mm) from the perimeter shall be controlled separately from daylight zones adjacent to vertical fenestration.

1. Control only luminaires within the daylit area.
2. Incorporate time-delay circuits to prevent cycling of light level changes of less than three minutes.

- EXCEPTION: Daylight zones enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.

#### **C405.2.2.3.1 Reserved.**

**C405.2.2.3.2 Automatic daylighting controls.** Setpoint and other controls for calibrating the lighting control device shall be readily accessible.

Daylighting controls device shall be capable of automatically reducing the lighting power in response to available daylight by either one of the following methods:

1. Continuous dimming using dimming ballasts and daylight-sensing automatic controls that are capable of reducing the power of general lighting in the daylit zone continuously to less than 20 percent of rated power at maximum light output.
2. Stepped dimming using multi-level switching and daylight-sensing controls that are capable of reducing lighting power automatically. The system shall provide a minimum of two control channels per zone and be installed in a manner such that at least one control step is between 50 percent and 70 percent of design lighting power and another control step is no greater than 35 percent of design power, and the system is capable of automatically turning the system off.

NEW SECTION**WAC 51-11C-405023 Section C405.2.3—Specific application controls.**

**C405.2.3 Specific application controls.** Specific application controls shall be provided for the following:

1. Display and accent light shall be controlled by a dedicated control which is independent of the controls for other lighting within the room or space.
2. Lighting in cases used for display case purposes shall be controlled by a dedicated control which is independent of the controls for other lighting within the room or space.
3. Hotel and motel sleeping units and guest suites shall have a master control device at the main room entry that controls all permanently installed luminaires and switched receptacles. Where a hotel/motel includes more than 50 rooms, controls shall be automatic to ensure all power to the lights and switched outlets are turned off when the occupant is not in the room.
4. Supplemental task lighting, including permanently installed under-shelf or under-cabinet lighting, shall be automatically shut off whenever that space is unoccupied and shall have a control device integral to the luminaires or be controlled by a wall-mounted control device provided the control device is readily accessible.
5. Lighting for nonvisual applications, such as plant growth and food warming, shall be controlled by a dedicated control which is independent of the controls for other lighting within the room or space.
6. Lighting equipment that is for sale or for demonstrations in lighting education shall be controlled by a dedicated control which is independent of the controls for other lighting within the room or space.
7. Egress and emergency illumination not normally off shall be controlled by a combination of listed emergency relay and occupancy sensors, or signal from another building control system or device capable of automatically shutting off the lighting in response to occupancy conditions. Up to 0.05 watts per square foot of lighting in any area within a building may be continuously illuminated provided that the area is designated an emergency egress area on the plans and specifications submitted to the code official.

NEW SECTION**WAC 51-11C-405024 Section C405.2.4—Exterior lighting controls.**

**C405.2.4 Exterior lighting controls.** Lighting not designated for dusk-to-dawn operation shall be controlled by either a combination of a photosensor and a time switch, or an astronomical time switch. Lighting designated for dusk-to-dawn operation shall be controlled by an astronomical time switch or photosensor. All time switches shall be capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

NEW SECTION**WAC 51-11C-405025 Section C405.2.5—Area controls.**

**C405.2.5 Area controls.** The maximum lighting power that may be controlled from a single switch or automatic control shall not exceed that which is provided by a 20 ampere circuit loaded to not more than 80 percent. A master control may be installed provided the individual switches retain their capability to function independently. Circuit breakers may not be used as the sole means of switching.

EXCEPTION: Areas less than 5 percent of the building footprint for footprints over 100,000 ft<sup>2</sup>.

NEW SECTION**WAC 51-11C-40503 Section C405.3—Reserved.****C405.3 Reserved.**NEW SECTION**WAC 51-11C-40504 Section C405.4—Exit signs.**

**C405.4 Exit signs (mandatory).** Internally illuminated exit signs shall not exceed 5 watts per side.

NEW SECTION**WAC 51-11C-40505 Section C405.5—Interior lighting power requirements.**

**C405.5 Interior lighting power requirements (prescriptive).** A building complies with this section if its total connected lighting power calculated under Section C405.5.1 is no greater than the interior lighting power calculated under Section C405.5.2.

NEW SECTION**WAC 51-11C-405051 Section C405.5.1—Total connected interior lighting power.**

**C405.5.1 Total connected interior lighting power.** The total connected interior lighting power (watts) shall be the sum of the watts of all interior lighting equipment as determined in accordance with Sections C405.5.1.1 through C405.5.1.4.

- EXCEPTIONS:
1. The connected power associated with the following lighting equipment is not included in calculating total connected lighting power.
    - 1.1. Professional sports arena playing field lighting.
    - 1.2. Emergency lighting automatically off during normal building operation.
    - 1.3. Lighting in spaces specifically designed for use by occupants with special lighting needs including the visually impaired and other medical and age-related issues.
    - 1.4. Casino gaming areas.
    - 1.5. General area lighting power in industrial and manufacturing occupancies dedicated to the inspection or quality control of goods and products.
  2. Lighting equipment used for the following shall be exempt provided that it is in addition to general light-

ing and is controlled by an independent control device:

- 2.1. Task lighting for medical and dental purposes.
- 2.2. Display lighting for exhibits in galleries, museums and monuments.
3. Lighting for theatrical purposes, including performance, stage, film production and video production.
4. Lighting for photographic processes.
5. Lighting integral to equipment or instrumentation and is installed by the manufacturer.
6. Task lighting for plant growth or maintenance.
7. Advertising signage or directional signage.
8. In restaurant buildings and areas, lighting for food warming or integral to food preparation equipment.
9. Lighting equipment that is for sale.
10. Lighting demonstration equipment in lighting education facilities.
11. Lighting *approved* because of safety or emergency considerations, inclusive of exit lights.
12. Lighting integral to both open and glass enclosed refrigerator and freezer cases.
13. Lighting in retail display windows, provided the display area is enclosed by ceiling-height partitions.
14. Furniture mounted supplemental task lighting that is controlled by automatic shutoff.
15. Lighting used for aircraft painting.

**C405.5.1.1 Screw lamp holders.** The wattage shall be the maximum *labeled* wattage of the luminaire.

**C405.5.1.2 Low-voltage lighting.** The wattage shall be the specified wattage of the transformer supplying the system.

**C405.5.1.3 Other luminaires.** The wattage of all other lighting equipment shall be the wattage of the lighting equipment verified through data furnished by the manufacturer or other *approved* sources.

**C405.5.1.4 Line-voltage lighting track and plug-in busway.** The wattage shall be:

1. The specified wattage of the luminaires included in the system with a minimum of 50 W/lin ft. (162 W/lin. m);
2. The wattage limit of the system's circuit breaker; or
3. The wattage limit of other permanent current limiting device(s) on the system.

NEW SECTION

**WAC 51-11C-405052 Section C405.5.2—Interior lighting power requirements.**

**C405.5.2 Interior lighting power.** The total interior lighting power allowance (watts) is determined according to Table C405.5.2(1) using the Building Area Method, or Table C405.5.2(2) using the Space-by-Space Method, for all areas of the building covered in this permit. For the Building Area Method, the interior lighting power allowance is the floor area for each building area type listed in Table C405.5.2(1) times the value from Table C405.5.2(1) for that area. For the purposes of this method, an "area" shall be defined as all contiguous spaces that accommodate or are associated with a single building area type as listed in Table C405.5.2(1). Where this method is used to calculate the total interior lighting power for an entire building, each building area type shall be treated as a separate area. For the Space-by-Space Method, the interior lighting power allowance is determined by multiplying the floor area of each space times the value for the

space type in Table C405.5.2(2) that most closely represents the proposed use of the space, and then summing the lighting power allowances for all spaces. Tradeoffs among spaces are permitted.

NEW SECTION

**WAC 51-11C-405053 Table C405.5.2(1)—Interior lighting power allowances—Building area method.**

**Table C405.5.2(1)  
Interior Lighting Power Allowances—Building Area Method**

Building Area Type	LPD (w/ft <sup>2</sup> )
Automotive facility	0.82
Convention center	1.08
Court house	1.05
Dining: Bar lounge/leisure	0.99
Dining: Cafeteria/fast food	0.90
Dining: Family	0.89
Dormitory	0.61
Exercise center	0.88
Fire station	0.71
Gymnasium	0.95
Health care clinic	0.87
Hospital	1.20
Hotel	1.00
Library	1.18
Manufacturing facility	1.11
Motel	0.88
Motion picture theater	0.83
Multifamily	0.60
Museum	1.00
Office	0.90
Parking garage	0.20
Penitentiary	0.90
Performing arts theater	1.25
Police station	0.90
Post office	0.87
Religious building	1.05
Retail	1.33
School/university	0.99
Sports arena	0.78
Town hall	0.92
Transportation	0.77
Warehouse	0.50
Workshop	1.20

NEW SECTION

**WAC 51-11C-405054 Table C405.5.5.2(2)—Interior lighting power allowances—Space-by-space method.**

**Table C405.5.2(2)**

**Interior Lighting Power Allowances—Space-by-Space Method**

<b>Common Space-by-Space Types</b>	<b>LPD (w/ft²)</b>
Atrium - First 40 feet in height	0.03 per ft. ht.
Atrium - Above 40 feet in height	0.02 per ft. ht.
Audience/seating area - Permanent	
For auditorium	0.79
For performing arts theater	2.43
For motion picture theater	1.14
Classroom/lecture/training	1.24
Conference/meeting/multipurpose	1.23
Corridor/transition	0.66
Dining area	
Bar/lounge/leisure dining	1.31
Family dining area	0.89
Dressing/fitting room performing arts theater	0.40
Electrical/mechanical	0.95
Food preparation	0.99
Laboratory for classrooms	1.28
Laboratory for medical/industrial/research	1.81
Lobby	0.90
Lobby for performing arts theater	2.00
Lobby for motion picture theater	0.52
Locker room	0.75
Lounge recreation	0.73
Office - Enclosed	1.11
Office - Open plan	0.98
Restroom	0.98
Sales area	1.68 <sup>a</sup>
Stairway	0.69
Storage	0.63
Workshop	1.59
<b>Building Specific Space-by-space Types</b>	
Automotive - Service/repair	0.67
Bank/office - Banking activity area	1.38
Convention center	
Exhibit space	1.45
Audience/seating area	0.82
Courthouse/police station/penitentiary	
Courtroom	1.72
Confinement cells	1.10
Judge chambers	1.17

<b>Common Space-by-Space Types</b>	<b>LPD (w/ft²)</b>
Penitentiary audience seating	0.43
Penitentiary classroom	1.34
Penitentiary dining	1.07
Dormitory living quarters	0.38
Fire stations	
Engine rooms	0.56
Sleeping quarters	0.25
Gymnasium/fitness center	
Fitness area	0.72
Gymnasium audience/seating	0.43
Playing area	1.20
Health care clinic/hospital	
Corridors/transition	0.89
Emergency	2.26
Exam/treatment	1.66
Medical supplies	1.27
Nursery	0.88
Nurse station	0.87
Operating room	1.89
Patient room	0.62
Pharmacy	1.14
Physical therapy	0.91
Radiology/imaging	1.32
Recovery	1.15
Hotel	
Dining area	0.82
Guest rooms	1.11
Hotel lobby	1.06
Highway lodging dining	0.88
Highway lodging guest rooms	0.75
Library	
Card file and cataloguing	0.72
Reading area	0.93
Stacks	1.71
Manufacturing	
Corridors/transition	0.41
Detailed manufacturing	1.29
Equipment room	0.95
Extra high bay (> 50-foot floor-ceiling height)	1.05
High bay (25 - 50-foot floor-ceiling height)	1.23
Low bay (< 25-foot floor-ceiling height)	1.19



Common Space-by-Space Types	LPD (w/ft <sup>2</sup> )
Museum	
General exhibition	1.05
Restoration	1.02
Parking garage - Garage areas	0.19
Post office	
Sorting area	0.94
Religious building	
Audience seating	1.53
Fellowship hall	0.64
Worship pulpit/choir	1.53
Retail	
Dressing/fitting area	0.87
Mall concourse	1.10
Sales area	1.68 <sup>a</sup>
Sports arena	
Audience seating	0.43
Court sports area - Class 4	0.72
Court sports area - Class 3	1.20

Common Space-by-Space Types	LPD (w/ft <sup>2</sup> )
Court sports area - Class 2	1.92
Court sports area - Class 1	3.01
Ring sports area	2.68
Transportation	
Air/train/bus baggage area	0.76
Airport concourse	0.36
Audience seating	0.54
Terminal - Ticket counter	1.08
Warehouse	
Fine material storage	0.95
Medium/bulky material	0.58

For SI: 1 foot = 304.8 mm, 1 watt per square foot = 11 W/m<sup>2</sup>.  
<sup>a</sup>Where lighting equipment is specified to be installed to highlight specific merchandise in addition to lighting equipment specified for general lighting and is switched or dimmed on circuits different from the circuits for general lighting, the smaller of the actual wattage of the lighting equipment installed specifically for merchandise, or additional lighting power as determined below shall be added to the interior lighting power determined in accordance with this line item.

Calculate the additional lighting power as follows:

$$\text{Additional Interior Lighting Power Allowance} = 500 \text{ watts} + (\text{Retail Area 1} \times 0.6 \text{ W/ft}^2) + (\text{Retail Area 2} \times 0.6 \text{ W/ft}^2) + (\text{Retail Area 3} \times 1.4 \text{ W/ft}^2) + (\text{Retail Area 4} \times 2.5 \text{ W/ft}^2).$$

Where:

- Retail Area 1 = The floor area for all products not listed in Retail Area 2, 3 or 4.
- Retail Area 2 = The floor area used for the sale of vehicles, sporting goods and small electronics.
- Retail Area 3 = The floor area used for the sale of furniture, clothing, cosmetics and artwork.
- Retail Area 4 = The floor area used for the sale of jewelry, crystal and china.

EXCEPTION: Other merchandise categories are permitted to be included in Retail Areas 2 through 4 above, provided that justification documenting the need for additional lighting power based on visual inspection, contrast, or other critical display is *approved* by the authority having jurisdiction.

watts shall contain lamps having a minimum efficacy of 90 lumens per watt unless the luminaire is controlled by a motion sensor or qualifies for one of the exceptions under Section C405.6.2.

**NEW SECTION**

**WAC 51-11C-40506 Section C405.6—Exterior lighting.**

**C405.6 Exterior lighting (mandatory).** Where the power for exterior lighting is supplied through the energy service to the building, all exterior lighting shall comply with Sections C405.6.1 and C405.6.2.

EXCEPTION: Where *approved* because of historical, safety, signage or emergency considerations.

**NEW SECTION**

**WAC 51-11C-405061 Section C406.1—Exterior building grounds lighting.**

**C405.6.1 Exterior building grounds lighting.** All exterior building grounds luminaires that operate at greater than 100

**NEW SECTION**

**WAC 51-11C-405062 Section C405.6.2—Exterior building lighting power.**

**C405.6.2 Exterior building lighting power.** The total exterior lighting power allowance for all exterior building applications is the sum of the base site allowance plus the individual allowances for areas that are to be illuminated and are permitted in Table C405.6.2(2) for the applicable lighting zone. Tradeoffs are allowed only among exterior lighting applications listed in Table C405.6.2(2), Tradable Surfaces section. The lighting zone for the building exterior is determined from Table C405.6.2(1) unless otherwise specified by the local jurisdiction. Exterior lighting for all applications (except those included in the exceptions to Section C405.6.2) shall comply with the requirements of Section C405.6.1.

EXCEPTION: Lighting used for the following exterior applications is exempt where equipped with a control device independent of the control of the nonexempt lighting:

1. Specialized signal, directional and marker lighting associated with transportation;
2. Advertising signage or directional signage;
3. Integral to equipment or instrumentation and is installed by its manufacturer;
4. Theatrical purposes, including performance, stage, film production and video production;
5. Athletic playing areas;
6. Temporary lighting;
7. Industrial production, material handling, transportation sites and associated storage areas;
8. Theme elements in theme/amusement parks; and
9. Used to highlight features of public monuments and registered historic landmark structures or buildings.

**Table C405.6.2(1)  
Exterior Lighting Zones**

Lighting Zone	Description
1	Developed areas of national parks, state parks, forest land, and rural areas
2	Areas predominantly consisting of residential zoning, neighborhood business districts, light industrial with limited nighttime use and residential mixed use areas
3	All other areas
4	High-activity commercial districts in major metropolitan areas as designated by the local land use planning authority

NEW SECTION

**WAC 51-11C-405063 Table C405.6.2(1)—Exterior lighting zones.**

NEW SECTION

**WAC 51-11C-405064 Table C405.6.2(2)—Individual lighting power allowances for building exteriors.**

**Table C405.6.2(2)  
Individual Lighting Power Allowances for Building Exteriors**

		Lighting Zones			
		Zone 1	Zone 2	Zone 3	Zone 4
Base Site Allowance (Base allowance is usable in tradable or nontradable surfaces.)		500 W	600 W	750 W	1300 W
Tradable Surfaces (Lighting power densities for uncovered parking areas, building grounds, building entrances and exits, canopies and overhangs and outdoor sales areas are tradable.)	<b>Uncovered Parking Areas</b>				
	Parking areas and drives	0.04 W/ft <sup>2</sup>	0.06 W/ft <sup>2</sup>	0.10 W/ft <sup>2</sup>	0.13 W/ft <sup>2</sup>
	<b>Building Grounds</b>				
	Walkways less than 10 feet wide	0.7 W/linear foot	0.7 W/linear foot	0.8 W/linear foot	1.0 W/linear foot
	Walkways 10 feet wide or greater, plaza areas, special feature areas	0.14 W/ft <sup>2</sup>	0.14 W/ft <sup>2</sup>	0.16 W/ft <sup>2</sup>	0.2 W/ft <sup>2</sup>
	Stairways	0.75 W/ft <sup>2</sup>	1.0 W/ft <sup>2</sup>	1.0 W/ft <sup>2</sup>	1.0 W/ft <sup>2</sup>
	Pedestrian tunnels	0.15 W/ft <sup>2</sup>	0.15 W/ft <sup>2</sup>	0.2 W/ft <sup>2</sup>	0.3 W/ft <sup>2</sup>
	<b>Building Entrances and Exits</b>				
	Main entries	20 W/linear foot of door width	20 W/linear foot of door width	30 W/linear foot of door width	30 W/linear foot of door width
	Other doors	20 W/linear foot of door width	20 W/linear foot of door width	20 W/linear foot of door width	20 W/linear foot of door width
	Entry canopies	0.25 W/ft <sup>2</sup>	0.25 W/ft <sup>2</sup>	0.4 W/ft <sup>2</sup>	0.4 W/ft <sup>2</sup>
	<b>Sales Canopies</b>				
	Free standing and attached	0.6 W/ft <sup>2</sup>	0.6 W/ft <sup>2</sup>	0.8 W/ft <sup>2</sup>	1.0 W/ft <sup>2</sup>
	<b>Outdoor Sales</b>				
Open areas (including vehicle sales lots)	0.25 W/ft <sup>2</sup>	0.25 W/ft <sup>2</sup>	0.5 W/ft <sup>2</sup>	0.7 W/ft <sup>2</sup>	
Street frontage for vehicle sales lots in addition to "open area" allowance	No Allowance	10 W/linear foot	10 W/linear foot	30 W/linear foot	

		Lighting Zones			
		Zone 1	Zone 2	Zone 3	Zone 4
Nontradable Surfaces (Lighting power density calculations for the following applications can be used only for the specific application and cannot be traded between surfaces or with other exterior lighting. The following allowances are in addition to any allowance otherwise permitted in the "Tradable Surfaces" section of this table.)	Building facades	No allowance	0.1 W/ft <sup>2</sup> for each illuminated wall or surface or 2.5 W/linear foot for each illuminated wall or surface length	0.15 W/ft <sup>2</sup> for each illuminated wall or surface or 3.75 W/linear foot for each illuminated wall or surface length	0.2 W/ft <sup>2</sup> for each illuminated wall or surface or 5.0 W/linear foot for each illuminated wall or surface length
	Automated teller machines and night depositories	270 W per location plus 90 W per additional ATM per location	270 W per location plus 90 W per additional ATM per location	270 W per location plus 90 W per additional ATM per location	270 W per location plus 90 W per additional ATM per location
	Entrances and gatehouse inspection stations at guarded facilities	0.75 W/ft <sup>2</sup> of covered and uncovered area	0.75 W/ft <sup>2</sup> of covered and uncovered area	0.75 W/ft <sup>2</sup> of covered and uncovered area	0.75 W/ft <sup>2</sup> of covered and uncovered area
	Loading areas for law enforcement, fire, ambulance and other emergency service vehicles	0.5 W/ft <sup>2</sup> of covered and uncovered area	0.5 W/ft <sup>2</sup> of covered and uncovered area	0.5 W/ft <sup>2</sup> of covered and uncovered area	0.5 W/ft <sup>2</sup> of covered and uncovered area
	Drive-up windows/doors	400 W per drive-through	400 W per drive-through	400 W per drive-through	400 W per drive-through
	Parking near 24-hour retail entrances	800 W per main entry	800 W per main entry	800 W per main entry	800 W per main entry

For SI: 1 foot = 304.8 mm, 1 watt per square foot = W/0.0929 m<sup>2</sup>

**NEW SECTION**

**WAC 51-11C-40507 Section C405.7—Electrical energy consumption.**

**C405.7 Electrical energy consumption (mandatory).** In buildings having individual dwelling units, provisions shall be made to determine the electrical energy consumed by each tenant by separately metering individual dwelling units. A utility tenant meter meets this requirement.

**NEW SECTION**

**WAC 51-11C-40508 Section C405.8—Electric motors.**

**C405.8 Electric motors.** All permanently wired polyphase motors of 1 hp or more, which are not part of an HVAC system, shall comply with Section C403.2.13.

- EXCEPTIONS:
1. Motors that are an integral part of specialized process equipment.
  2. Where the motor is integral to a listed piece of equipment for which no complying motor has been approved.

**NEW SECTION**

**WAC 51-11C-40509 Section C405.9—Transformers.**

**C405.9 Transformers.** The minimum efficiency of a low voltage dry-type distribution transformer shall be the Class I Efficiency Levels for distribution transformers specified in Table 4-2 of the "Guide for Determining Energy Efficiency for Distribution Transformers" published by the National Electrical Manufacturers Association (NEMA TP-1-2002).

**NEW SECTION**

**WAC 51-11C-40510 Section C405.10—Walk-in coolers and freezers.**

**C405.10 Walk-in coolers and walk-in freezers.** Walk-in coolers and walk-in freezers shall comply with all of the following:

1. Lights shall use light sources with an efficacy of 40 lumens per watt or more, including ballast losses (if any). Light sources with an efficacy of less than 40 lumens per watt, including ballast losses (if any), may be used in conjunction with a timer or device that turns off the lights within 15 minutes of when the *walk-in cooler* or *walk-in freezer* is not occupied by people.

**NEW SECTION**

**WAC 51-11C-40511 Section C405.11—Refrigerated warehouse coolers and freezers.**

**C405.11 Refrigerated warehouse coolers and refrigerated warehouse freezers.** Refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with all of the following:

1. Lights shall use light sources with an efficacy of 40 lumens per watt or more, including ballast losses (if any). Light sources with an efficacy of less than 40 lumens per watt, including ballast losses (if any), may be used in conjunction with a timer or device that turns off the lights within 15 minutes of when the *refrigerated warehouse cooler* or *refrigerated warehouse freezer* is not occupied by people.

NEW SECTION

**WAC 51-11C-40512 Section C405.12—Escalators and moving walks.**

**C405.12 Escalators and moving walks.**

**C405.12.1 Variable speed escalators.** Where variable speed escalators and moving walks are permitted by the administrative authority, all escalators and moving walks shall reduce their operating speed to no more than 15 feet per minute when no passengers have been detected for a period of time not exceeding three times the amount of time required to transfer a passenger between landings. Such escalators and moving walks shall comply with the requirements of ANSI/ASME A17.1 - 2010 for variable speed escalators and moving walks.

**EXCEPTION:** A power factor controller that reduces operating voltage in response to light loading conditions may be provided in place of the variable speed function.

**C405.12.2 Regenerative drive.** Escalators designed either for one-way down operation only or for reversible operation shall have variable frequency regenerative drives that supply electrical energy to the building electrical system when loaded with more than 5 passengers.

NEW SECTION

**WAC 51-11C-40513 Section C405.13—Electrical power and lighting systems commissioning and completion requirements.**

**C405.13 Electrical power and lighting systems commissioning and completion requirements.** Electrical power and lighting systems shall be commissioned and completed in accordance with Section C408.

NEW SECTION

**WAC 51-11C-40600 Section C406—Additional efficiency package options.**

NEW SECTION

**WAC 51-11C-40601 Section C406.1—Requirements.**

NEW SECTION

**WAC 51-11C-406021 Table C406.2(1)—Unitary air conditioners and condensing units, efficiency requirements.**

**Table C402.2(1)**

**Unitary Air Conditioners and Condensing Units, Electrically Operated, Efficiency Requirements**

Equipment Type	Size Category	Subcategory or Rating Condition	Minimum Efficiency <sup>a</sup>	
			Climate Zones 1 - 5	Climate Zones 6 - 8
Air conditioners, air cooled	< 65,000 Btu/h	Split system	15.0 SEER 12.5 EER	14.0 SEER 12.0 EER
		Single package	15.0 SEER 12.0 EER	14.0 SEER 11.6 EER

**C406.1 Requirements.** Buildings shall comply with at least one of the following:

1. Efficient HVAC performance in accordance with Section C406.2. However, this option shall not be used if credit for higher efficiency HVAC performance has already been claimed to demonstrate compliance with other sections of this code including, but not limited to, Section C403.2.3 exception 2 and Section C403.4.1 economizers exceptions 3, 4, and 5.

2. Enhanced lighting controls in accordance with Section C406.3.

3. On-site supply of renewable energy in accordance with Section C406.4.

4. Efficient building envelope in accordance with Section C406.5.

Individual tenant spaces shall comply with either Section C406.2 or Section C406.3 unless documentation can be provided that demonstrates compliance with Section C406.4 for the entire building.

NEW SECTION

**WAC 51-11C-40602 Section C406.2—Efficient HVAC performance.**

**C406.2 Efficient HVAC performance.** Equipment shall meet the minimum efficiency requirements of Tables C406.2(1) through C406.2(7) in addition to the requirements in Section C403. This section shall only be used where the equipment efficiencies in Tables C406.2(1) through C406.2(7) are greater than the equipment efficiencies listed in Table C403.2.3(1) through C403.2.3(7) for the equipment type. Where equipment efficiencies in Tables C406.2(1) through C406.2(7) are not greater than Table C403.2.3(1) through C403.2(7), this section can also be used if the equipment exceeds the latest federal efficiency standards by 10 percent. The capacity of heating and cooling equipment not listed in Table C403.2.3(1) through C403.2.3(7) (e.g., electric resistance used in duct heaters and reheat) shall be limited to not more than 5 percent of the total building heating capacity and 5 percent of the total cooling capacity.

**EXCEPTION:** Energy using equipment used by a manufacturing, industrial or commercial process other than for conditioning spaces or maintaining comfort and amenities for the occupants.

Equipment Type	Size Category	Subcategory or Rating Condition	Minimum Efficiency <sup>a</sup>	
			Climate Zones 1 - 5	Climate Zones 6 - 8
	≥ 65,000 Btu/h and < 240,000 Btu/h	Split system and single package	12.0 EER <sup>b</sup> 12.54 IEER <sup>b</sup>	11.5 EER <sup>b</sup> 12.0 IEER <sup>b</sup>
	≥ 240,000 Btu/h and < 760,000 Btu/h	Split system and single package	10.8 EER <sup>b</sup> 11.3 IEER <sup>b</sup>	10.5 EER <sup>b</sup> 11.0 IEER <sup>b</sup>
	≥ 760,000 Btu/h	–	10.2 EER <sup>b</sup> 10.7 IEER <sup>b</sup>	9.7 EER <sup>b</sup> 10.2 IEER <sup>b</sup>
Air conditioners, water and evaporatively cooled	–	Split system and single package	14.0 EER	14.0 EER

For SI: 1 British thermal unit per hour = 0.2931 W.

<sup>a</sup> IEERs are only applicable to equipment with capacity modulation.

<sup>b</sup> Deduct 0.2 from the required EERs and IPLVs for units with a heating section other than electric resistance heat.

NEW SECTION

**WAC 51-11C-406022 Table C406.2(2)—Unitary and applied heat pumps, efficiency requirements.**

**Table C406.2(2)  
Unitary and Applied Heat Pumps, Electrically Operated, Efficiency Requirements**

Equipment Type	Size Category	Subcategory or Rating Condition	Minimum Efficiency <sup>a</sup>	
			Climate Zones 1 - 5	Climate Zones 6 - 8
Air cooled (Cooling mode)	< 65,000 Btu/h	Split system	15.0 SEER 12.5 EER	14.0 SEER 12.0 EER
		Single package	15.0 SEER 12.0 EER	14.0 SEER 11.6 EER
	≥ 65,000 Btu/h and < 240,000 Btu/h	Split system and single package	12.0 EER <sup>b</sup> 12.4 IEER <sup>b</sup>	11.5 EER <sup>b</sup> 12.0 IEER <sup>b</sup>
	≥ 240,000 Btu/h	Split system and single package	12.0 EER <sup>b</sup> 12.4 IEER <sup>b</sup>	10.5 EER <sup>b</sup> 10.5 IEER <sup>b</sup>
Water sources (Cooling mode)	< 135,000 Btu/h	85°F entering water	14.0 EER	14.0 EER
Air cooled (Heating mode)	< 65,000 Btu/h (Cooling capacity)	Split system	9.0 HSPF	8.5 HSPF
		Single package	8.5 HSPF	8.0 HSPF
	≥ 65,000 Btu/h and < 135,000 Btu/h (Cooling capacity)	47°F db/43°F wb outdoor air	3.4 COP	3.4 COP
		17°F db/15°F wb outdoor air	2.4 COP	2.4 COP
	≥ 135,000 Btu/h (Cooling capacity)	47°F db/43°F wb outdoor air	3.2 COP	3.2 COP
		77°F db/15°F wb outdoor air	2.1 COP	2.1 COP
Water sources (Heating mode)	< 135,000 Btu/h (Cooling capacity)	70°F entering water	4.6 COP	4.6 COP

For SI: °C = [(°F) - 32] / 1.8, 1 British thermal unit per hour = 0.2931 W.

db = dry-bulb temperature, °F; wb = wet-bulb temperature, °F.

<sup>a</sup> IEERs and part load rating conditions are only applicable to equipment with capacity modulation.

<sup>b</sup> Deduct 0.2 from the required EERs and IPLVs for units with a heating section other than electric resistance heat.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11C-406023 Table C406.2(3)—Reserved.**

NEW SECTION

**WAC 51-11C-406024 Table C406.2(4)—Warm air furnaces and unit heaters, efficiency requirements.**

**Table C406.2(4)**

**Warm Air Furnaces and Combination Warm Air Furnaces/Air-Conditioning Units, Warm Air Duct Furnaces and Unit Heaters, Efficiency Requirements**

Equipment Type	Size Category (Input)	Subcategory or Rating Condition	Minimum Efficiency	Test Procedure
Warm air furnaces, gas fired <sup>a</sup>	< 225,000 Btu/h	—	For Climate Zones 1 and 2 NR	DOE 10 C.F.R. Part 430 or ANSI Z21.47
			For Climate Zone 3 90 AFUE or 90 <i>Et</i> <sup>c</sup>	
			For Climate Zones 4 - 8 95 AFUE or 95 <i>Et</i> <sup>c</sup>	
	≥ 225,000 Btu/h	Maximum capacity	90% <i>Ec</i> <sup>b</sup>	ANSI Z21.47
Warm air furnaces, oil fired <sup>a</sup>	< 225,000 Btu/h	—	For Climate Zones 1 and 2NR	DOE 10 C.F.R. Part 430 or UL 727
			For Climate Zones 3 - 8 85 AFUE or 85 <i>Et</i> <sup>c</sup>	
		≥ 225,000 Btu/h	Maximum capacity	85% <i>Et</i> <sup>b</sup>
Warm air duct furnaces, gas fired <sup>a</sup>	All capacities	Maximum capacity	90% <i>Ec</i>	ANSI Z83.8
Warm air unit heaters, gas fired	All capacities	Maximum capacity	90% <i>Ec</i>	ANSI Z83.8
Warm air unit heaters, oil fired	All capacities	Maximum capacity	90% <i>Ec</i>	UL 731

For SI: 1 British thermal unit per hour = 0.2931 W.

*Et* = Thermal efficiency.

*Ec* = Combustion efficiency (100 percent less flue losses).

<sup>a</sup> Efficient furnace fan: Fossil fuel furnaces in Climate Zones 3 to 8 shall have a furnace electricity ratio not greater than 2 percent and shall include a manufacturer's designation of the furnace electricity ratio.

<sup>b</sup> Units shall also include an IID (intermittent ignition device), have jacket losses not exceeding 0.75 percent of the input rating, and have either power venting or a flue damper. A vent damper is an acceptable alternative to a flue damper for those furnaces where combustion air is drawn from the conditioned space.

<sup>c</sup> Where there are two ratings for units not covered by NAECA (3-phase power or cooling capacity greater than or equal to 65,000 Btu/h [19 kW]), units shall be permitted to comply with either rating.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11C-406025 Table C406.2(5)—Boiler efficiency requirements.**

**Table C406.2(5)**

**Boiler, Efficiency Requirements**

Equipment Type	Fuel	Size Category	Test Procedure	Minimum Efficiency
Steam	Gas	< 300,000 Btu/h	DOE 10 C.F.R. Part 430	83% AFUE
		> 300,000 Btu/h and > 2.5 m Btu/h	DOE 10 C.F.R. Part 431	81% <i>Et</i>
		> 2.5 m Btu/h		82% <i>Ec</i>
	Oil	< 300,000 Btu/h	DOE 10 C.F.R. Part 430	85% AFUE
		> 300,000 Btu/h and > 2.5 m Btu/h	DOE 10 C.F.R. Part 431	83% <i>Et</i>
		> 2.5 m Btu/h		84% <i>Ec</i>
Hot water	Gas	< 300,000 Btu/h	DOE 10 C.F.R. Part 430	95.5% AFUE
		> 300,000 Btu/h and > 2.5 m Btu/h	DOE 10 C.F.R. Part 431	94% <i>Et</i>
		> 2.5 m Btu/h		94% <i>Ec</i>

Equipment Type	Fuel	Size Category	Test Procedure	Minimum Efficiency
	Oil	< 300,000 Btu/h	DOE 10 C.F.R. Part 430	90% AFUE
		> 300,000 Btu/h and > 2.5 m Btu/h	DOE 10 C.F.R. Part 431	88% <i>Et</i>
		> 2.5 m Btu/h 8		87% <i>Ec</i>

For SI: 1 British thermal unit per hour = 0.2931 W.

*Et* = Thermal efficiency.

*Ec* = Combustion efficiency (100 percent less flue losses).

**NEW SECTION**

**WAC 51-11C-406026 Table C406.2(6)—Chillers, efficiency requirements.**

**Table C406.2(6)  
Chillers—Efficiency Requirements**

Equipment Type	Size Category	Units	Minimum Efficiency <sup>c</sup> (I-P)				Test Procedure <sup>b</sup>
			Path A		Path B <sup>c</sup>		
			Full Load	IPLV	Full Load	IPLV	
Air-cooled chillers with condenser, electrically operated	< 150 tons	EER	10.000	12.500	NA	NA	AHRI 550/590 <sup>f</sup>
	≥ 150 tons	EER	10.000	12.750	NA	NA	
Air-cooled without condenser, electrically operated	All capacities	EER	Condenser less units shall be rated with matched condensers				AHRI 550/590 <sup>f</sup>
Water-cooled, electrically operated, positive displacement (reciprocating)	All capacities	kW/ton	Reciprocating units required to comply with water-cooled positive displacement requirements				AHRI 550/590 <sup>f</sup>
Water-cooled, electrically operated, positive displacement	< 75 tons	kW/ton	0.780	0.600	NA	NA	AHRI 550/590 <sup>f</sup>
	≥ 75 tons and < 150 tons	kW/ton	0.730	0.550	NA	NA	
	≥ 150 tons and < 300 tons	kW/ton	0.610	0.510	NA	NA	
	≥ 300 tons	kW/ton	0.600	0.490	NA	NA	
Water-cooled electrically operated, centrifugal <sup>c</sup>	< 150 tons	kW/ton	0.610	0.620	0.630	0.400	AHRI 550/590 <sup>f</sup>
	≥ 150 tons and < 300 tons	kW/ton	0.590	0.560	0.600	0.400	
	≥ 300 tons and < 600 tons	kW/ton	0.570	0.510	0.580	0.400	
	≥ 600 tons	kW/ton	0.550	0.510	0.550	0.400	
Air-cooled absorption single effect <sup>e</sup>	All capacities	COP	0.600	NR <sup>f</sup>	NA <sup>e</sup>	NA <sup>e</sup>	AHRI 560
Water-cooled absorption single effect <sup>e</sup>	All capacities	COP	0.700	NR <sup>f</sup>	NA <sup>e</sup>	NA <sup>e</sup>	
Absorption double effect indirect fired	All capacities	COP	1.000	1.050	NA <sup>e</sup>	NA <sup>e</sup>	
Absorption double effect direct fired	All capacities	COP	1.000	1.200	NA <sup>e</sup>	NA <sup>e</sup>	

For SI: 1 ton = 3516 W.

NA = Not applicable and cannot be used for compliance.

NR = No minimum requirements.

<sup>a</sup> Compliance with this standard can be obtained by meeting the minimum requirements of Path A or Path B. However both the full load and IPLV shall be met to fulfill the requirements of Path A and Path B.

<sup>b</sup>Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.

<sup>c</sup>Path B is intended for applications with significant operating time at part load. All Path B machines shall be equipped with demand limiting capable controls.

<sup>d</sup>The chiller equipment requirements do not apply for chillers used in low-temperature applications where the design leaving fluid temperature is greater than 36°F.

<sup>e</sup>Only allowed to be used in heat recovery applications.

<sup>f</sup>Packages that are not designed for operation at ARI Standard 550/590 test conditions (and, thus, cannot be tested to meet the requirements of Table C-3) of 44°F leaving chilled-water temperature and 85°F entering condenser-water temperature with 3 gpm/ton condenser-water flow shall have maximum full-load kW/ton and *NPLV* ratings adjusted using the following equation:

$$\begin{aligned} \text{Adjusted maximum full load kW/ton rating} &= (\text{full load kW/ton from Table C-3})/K_{adj} \\ \text{Adjusted maximum NPLV rating} &= (\text{IPLV from Table C-3})/K_{adj} \end{aligned}$$

Where:

$$\begin{aligned} K_{adj} &= 6.174722 - 0.303668(X) + 0.00629466(X)^2 - 0.000045780(X)^3 \\ X &= DT_{std} + \text{LIFT } (^\circ\text{F}) \\ DT_{std} &= [(24 + (\text{full load kW/ton from Table C-3}) \times 6.83)]/\text{flow } (^\circ\text{F}) \\ \text{Flow} &= \text{condenser-water flow (gpm) / cooling full load capacity (tons)} \\ \text{LIFT} &= \text{CEWT} - \text{CLWT } (^\circ\text{F}) \\ \text{CEWT} &= \text{full load entering condenser-water temperature } (^\circ\text{F}) \\ \text{CLWT} &= \text{full load leaving chilled-water temperature } (^\circ\text{F}) \end{aligned}$$

The adjusted full load and *NPLV* values are only applicable over the following full-load design ranges:

$$\begin{aligned} \text{Minimum leaving chilled-water temperature: } &38^\circ\text{F} \\ \text{Maximum condenser entering water temperature: } &102^\circ\text{F} \\ \text{Condenser-water flow: } &1 \text{ to } 6 \text{ gpm/ton} \\ X \in &39^\circ\text{F and } 86^\circ\text{F} \end{aligned}$$

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

#### NEW SECTION

#### **WAC 51-11C-40603 Section C406.3—Enhanced lighting controls.**

**C406.3 Enhanced lighting controls.** All interior lighting in the building shall have the following enhanced lighting controls.

1. All luminaires shall be capable of continuous dimming.
  2. All luminaires shall be individually addressable. Where individual addressability is not available for the luminaire type of class, a controlled group of no more than 4 luminaires shall be allowed.
  3. No more than 8 luminaires shall be controlled together in the primary daylight zone. No more than 8 luminaires shall be controlled together in the secondary daylight zone. Per C405.2.2 the primary daylight zone shall be controlled separately from the secondary daylight zone.
  4. All fixtures will be controlled through a digital control system that includes at a minimum, the following function:
    - 4.1. Control reconfiguration based on digital addressability
    - 4.2. Load shedding
    - 4.3. Individual user control of overhead general illumination in open offices
    - 4.4. Measurement and verification as defined IES DG 29-11
    - 4.5. Occupancy sensors shall be reconfigurable through the digital control system.
  5. Plan review shall include submittal of a Sequence of Operations, specification outlining function of all of the above mentioned components of the system.
- Commissioning shall comply with IES DG 29-11 and include verification of the sequence of operations.

#### NEW SECTION

#### **WAC 51-11C-40604 Section C406.4—On-site renewable energy.**

**C406.4 On-site renewable energy.** Total minimum ratings of on-site renewable energy systems shall comply with one of the following:

1. Provide an on-site renewable energy system with a capacity of not less than 1.75 Btu per square foot/h, or not less than 0.50 watts per square foot (5.4 W/m<sup>2</sup>) of conditioned floor area.

#### NEW SECTION

#### **WAC 51-11C-40605 Section C406.5—Efficient building envelope total UA.**

**C406.5 Efficient building envelope total UA.** The total proposed *building thermal envelope* UA shall be less than or equal to 85 percent of the total target UA as calculated in conformance with Section C402.1.3.

**C406.5.1 Compliance.** Compliance with this section shall be documented as part of the permit documents, and shall compute the area and U-value of each different type of building envelope component in tabular form, showing the U x A for the standard code-compliant case and the efficient building envelope case side-by-side. The total building U x A shall be calculated for each case.

#### NEW SECTION

#### **WAC 51-11C-40700 Section C407—Total building performance.**

#### NEW SECTION

#### **WAC 51-11C-40701 Section C407.1—Scope.**

**C407.1 Scope.** This section establishes criteria for compliance using total building performance. All systems and loads shall be included in determining the total building performance including, but not limited to: Heating systems, cooling systems, service water heating, fan systems, lighting power, receptacle loads and process loads.

#### NEW SECTION

#### **WAC 51-11C-40702 Section C407.2—Mandatory requirements.**

**C407.2 Mandatory requirements.** Compliance with this section requires that the criteria of Sections C402.4, C403.2, C404 and C405 be met.

The building permit application for projects utilizing this method shall include in one submittal all building and mechanical drawings and all information necessary to verify that the building envelope and mechanical design for the project corresponds with the annual energy analysis. If credit is proposed to be taken for lighting energy savings, then an



electrical permit application shall also be submitted and approved prior to the issuance of the building permit. If credit is proposed to be taken for energy savings from other components, then the corresponding permit application (e.g., plumbing, boiler, etc.) shall also be submitted and approved prior to the building permit application. Otherwise, components of the project that would not be approved as part of a building permit application shall be modeled the same in both the proposed building and the *standard reference design* and shall comply with the requirements of this code.

#### NEW SECTION

#### **WAC 51-11C-40703 Section C407.3—Performance-based compliance.**

**C407.3 Performance-based compliance.** Compliance based on total building performance requires that a proposed building (*proposed design*) be shown to have an annual energy consumption based on site energy expressed in Btu and Btu per square foot of *conditioned floor area* that is less than or equal to the annual energy consumption of the *standard reference design*.

#### NEW SECTION

#### **WAC 51-11C-40704 Section C407.4—Documentation.**

**C407.4 Documentation.** Documentation verifying that the methods and accuracy of compliance software tools conform to the provisions of this section shall be provided to the *code official*.

**C407.4.1 Compliance report.** Building permit submittals shall include a report that documents that the *proposed design* has annual energy consumption less than or equal to the annual energy consumption of the *standard reference design*. The compliance documentation shall include the following information:

1. Address of the building;
2. An inspection checklist documenting the building component characteristics of the *proposed design* as listed in Table C407.5.1(1). The inspection checklist shall show the estimated annual energy consumption for both the *standard reference design* and the *proposed design*;
3. Name of individual completing the compliance report; and
4. Name and version of the compliance software tool.

**C407.4.2 Additional documentation.** The *code official* shall be permitted to require the following documents:

1. Documentation of the building component characteristics of the *standard reference design*;
2. Thermal zoning diagrams consisting of floor plans showing the thermal zoning scheme for *standard reference design* and *proposed design*;
3. Input and output report(s) from the energy analysis simulation program containing the complete input and output files, as applicable. The output file shall include energy use totals and energy use by energy source and end-use served, total hours that space conditioning loads are not met and any

errors or warning messages generated by the simulation tool as applicable;

4. An explanation of any error or warning messages appearing in the simulation tool output; and

5. A certification signed by the builder providing the building component characteristics of the *proposed design* as given in Table C407.5.1(1).

#### NEW SECTION

#### **WAC 51-11C-40705 Section C407.5—Calculation procedure.**

**C407.5 Calculation procedure.** Except as specified by this section, the *standard reference design* and *proposed design* shall be configured and analyzed using identical methods and techniques.

**C407.5.1 Building specifications.** The *standard reference design* and *proposed design* shall be configured and analyzed as specified by Table C407.5.1(1). Table C407.5.1(1) shall include by reference all notes contained in Table C402.2.

**C407.5.2 Thermal blocks.** The *standard reference design* and *proposed design* shall be analyzed using identical thermal blocks as specified in Section C407.5.2.1, C407.5.2.2 or C407.5.2.3.

**C407.5.2.1 HVAC zones designed.** Where HVAC *zones* are defined on HVAC design drawings, each HVAC *zone* shall be modeled as a separate thermal block.

EXCEPTION: Different HVAC *zones* shall be allowed to be combined to create a single thermal block or identical thermal blocks to which multipliers are applied provided:

1. The space use classification is the same throughout the thermal block.
2. All HVAC *zones* in the thermal block that are adjacent to glazed exterior walls face the same orientation or their orientations are within 45 degrees (0.79 rad) of each other.
3. All of the *zones* are served by the same HVAC system or by the same kind of HVAC system.

**C407.5.2.2 HVAC zones not designed.** Where HVAC *zones* have not yet been designed, thermal blocks shall be defined based on similar internal load densities, occupancy, lighting, thermal and temperature schedules, and in combination with the following guidelines:

1. Separate thermal blocks shall be assumed for interior and perimeter spaces. Interior spaces shall be those located more than 15 feet (4572 mm) from an exterior wall. Perimeter spaces shall be those located closer than 15 feet (4572 mm) from an *exterior wall*.

2. Separate thermal blocks shall be assumed for spaces adjacent to glazed exterior walls: A separate *zone* shall be provided for each orientation, except orientations that differ by no more than 45 degrees (0.79 rad) shall be permitted to be considered to be the same orientation. Each *zone* shall include floor area that is 15 feet (4572 mm) or less from a glazed perimeter wall, except that floor area within 15 feet (4572 mm) of glazed perimeter walls having more than one orientation shall be divided proportionately between *zones*.

3. Separate thermal blocks shall be assumed for spaces having floors that are in contact with the ground or exposed

to ambient conditions from *zones* that do not share these features.

4. Separate thermal blocks shall be assumed for spaces having exterior ceiling or roof assemblies from *zones* that do not share these features.

**C407.5.2.3 Multifamily residential buildings.** Residential spaces shall be modeled using one thermal block per space except that those facing the same orientations are permitted to be combined into one thermal block. Corner units and units with roof or floor loads shall only be combined with units sharing these features.

NEW SECTION

**WAC 51-11C-407051 Table C407.5.1(1)—Specifications for the standard reference and proposed design.**

**Table C407.5.1(1)  
Specifications for the Standard Reference and Proposed Designs**

<b>Building Component Characteristics</b>	<b>Standard Reference Design</b>	<b>Proposed Design</b>
Space use classification	Same as proposed	The space use classification shall be chosen in accordance with Table C405.5.2 for all areas of the building covered by this permit. Where the space use classification for a building is not known, the building shall be categorized as an office building.
Roofs	Type: Insulation entirely above deck Gross area: Same as proposed U-factor: From Table C402.1.2 Solar absorptance: 0.75 Emittance: 0.90	As proposed As proposed As proposed As proposed As proposed
Walls, above-grade	Type: Mass wall if proposed wall is mass; otherwise steel-framed wall Gross area: Same as proposed U-factor: From Table C402.1.2 Solar absorptance: 0.75 Emittance: 0.90	As proposed As proposed As proposed As proposed
Walls, below-grade	Type: Mass wall Gross area: Same as proposed U-Factor: From Table C402.1.2 with insulation layer on interior side of walls	As proposed As proposed As proposed
Floors, above-grade	Type: Joist/framed floor Gross area: Same as proposed U-factor: From Table C402.1.2	As proposed As proposed As proposed
Floors, slab-on-grade	Type: Unheated F-factor: From Table C402.1.2	As proposed As proposed
Doors	Type: Swinging Area: Same as proposed U-factor: From Table C402.2	As proposed As proposed As proposed
Vertical Fenestration	Area 1. The proposed vertical fenestration area; where the proposed vertical fenestration area is less than 30 percent of above-grade wall area. 2. 30 percent of above-grade wall area; where the proposed vertical fenestration area is 30 percent or more of the above-grade wall area.	As proposed

Building Component Characteristics	Standard Reference Design	Proposed Design
	<p><i>U</i>-factor: From Table C402.3 for the same framing material as proposed</p> <p>SHGC: From Table C402.3 except that for climates with no requirement (NR) SHGC = 0.40 shall be used</p> <p>External shading and PF: None</p>	<p>As proposed</p> <p>As proposed</p> <p>As proposed</p>
Skylights	<p>Area</p> <ol style="list-style-type: none"> <li>1. The proposed skylight area; where the proposed skylight area is less than 3 percent of gross area of roof assembly.</li> <li>2. 3 percent of gross area of roof assembly; where the proposed skylight area is 3 percent or more of gross area of roof assembly.</li> </ol> <p><i>U</i>-factor: From Table C402.3</p> <p>SHGC: From Table C402.3 except that for climates with no requirement (NR) SHGC = 0.40 shall be used</p>	<p>As proposed</p> <p>As proposed</p> <p>As proposed</p>
Lighting, interior	<p>The interior lighting power shall be determined in accordance with Table C405.5.2. Where the occupancy of the building is not known, the lighting power density shall be 1.0 watt per square foot (10.73 W/m<sup>2</sup>) based on the categorization of buildings with unknown space classification as offices.</p> <p>Automatic lighting controls (e.g., programmable controls or automatic controls for daylight utilization) shall be modeled in <i>the standard reference design</i> as required by Section C405.</p>	<p>As proposed</p>
Lighting, exterior	<p>The lighting power shall be determined in accordance with Table C405.6.2(2). Areas and dimensions of tradable and nontradable surfaces shall be the same as proposed.</p>	<p>As proposed</p>
Internal gains	<p>Same as proposed</p>	<p>Receptacle, motor and process loads shall be modeled and estimated based on the space use classification. All end-use load components within and associated with the building shall be modeled to include, but not be limited to, the following: Exhaust fans, parking garage ventilation fans, exterior building lighting, swimming pool heaters and pumps, elevators, escalators, refrigeration equipment and cooking equipment.</p>
Schedules	<p>Same as proposed</p>	<p>Operating schedules shall include hourly profiles for daily operation and shall account for variations between weekdays, weekends, holidays and any seasonal operation. Schedules shall model the time-dependent variations in occupancy, illumination, receptacle loads, thermostat settings, mechanical ventilation, HVAC equipment availability,</p>

Building Component Characteristics	Standard Reference Design	Proposed Design
		service hot water usage and any process loads. The schedules shall be typical of the proposed building type as determined by the designer and approved by the jurisdiction.
Mechanical ventilation	Same as proposed, except when modeling demand-control ventilation in the proposed design when its use is not required by Section C403.2.5.1 or occupancy sensor ventilation controls when their use is not required by Section C403.2.5.2.	As proposed, in accordance with Section C403.2.5.
Heating systems	<p>Fuel type: Same as proposed design</p> <p>Equipment type<sup>a</sup>: From Tables C407.5.1(2) and C407.5.1(3)</p> <p>Efficiency: From Tables C403.2.3(4) and C403.2.3(5)</p> <p>Preheat coils: If the HVAC system in the proposed design has a preheat coil and a preheat coil can be modeled in the <i>standard reference design</i>, the <i>standard reference design</i> shall be modeled with a preheat coil controlled in the same manner as the proposed design.</p> <p>Capacity<sup>b</sup>: Sized proportionally to the capacities in the proposed design based on sizing runs, i.e., the ratio between the capacities used in the annual simulations and the capacities determined by the sizing runs shall be the same for both the proposed design and <i>standard reference design</i>, and shall be established such that no smaller number of unmet heating load hours and no larger heating capacity safety factors are provided than in the proposed design.</p> <p>Weather conditions used in sizing runs to determine <i>standard reference design</i> equipment capacities may be based either on hourly historical weather files containing typical peak conditions or on design days developed using 99.6% heating design temperatures and 1% dry-bulb and 1% wet-bulb cooling design temperatures.</p>	<p>As proposed</p> <p>As proposed</p> <p>As proposed</p> <p>As proposed</p>
Cooling systems	<p>Fuel type: Same as proposed design</p> <p>Equipment type<sup>c</sup>: From Tables C407.5.1(2) and C407.5.1(3)</p> <p>Efficiency: From Tables C403.2.3(1), C403.2.3(2) and C403.2.3(3)</p> <p>Capacity<sup>b</sup>: Sized proportionally to the capacities in the proposed design based on sizing runs, i.e., the ratio between the capacities used in the annual simulations and the capacities determined by the sizing runs shall be the same for both the proposed design and <i>standard reference design</i>, and shall be established such that no smaller number of unmet cooling load hours and no larger cooling capacity safety factors are provided than in the proposed design.</p>	<p>As proposed</p> <p>As proposed</p> <p>As proposed</p> <p>As proposed</p>

Building Component Characteristics	Standard Reference Design	Proposed Design
	Economizer <sup>d</sup> : Same as proposed, in accordance with Section C403.4.1. The high-limit shutoff shall be a dry-bulb switch with a setpoint as determined by Table C403.3.1.1.3(2).	As proposed
Energy recovery	<i>Standard reference design</i> systems shall be modeled where required in Section C403.2.6.	As proposed
Fan systems	<p>Airflow rate: System design supply airflow rates for the <i>standard reference design</i> shall be based on a supply-air-to-room-air temperature difference of 20°F or the required ventilation air or makeup air, whichever is greater. If return or relief fans are specified in the proposed design, the <i>standard reference design</i> shall also be modeled with fans serving the same functions and sized for the <i>standard reference design</i> system supply fan air quantity less the minimum outdoor air, or 90% of the supply fan air quantity, whichever is larger.</p> <p>Motor brake horsepower: System fan electrical power for supply, return, exhaust, and relief (excluding power to fan-powered VAV boxes) shall be calculated using the following formulas:                      For systems 8 and 10,  <math>P_{fan} = CFMS \times 0.3</math>                      For all other systems,  <math>P_{fan} = bhp \times 746 / \text{Fan Motor Efficiency}</math>                      Where:  <math>P_{fan}</math> = Electric power to fan motor (watts)  <math>bhp</math> = Brake horsepower of <i>standard reference design</i> fan motor from Table C403.2.10.1(1) – Option 2                      Fan motor = The efficiency from Table C403.2.13 for the efficiency next motor size greater than the <math>bhp</math> using the enclosed motor at 1800 rpm  <math>CFMS</math> = The <i>standard reference design</i> system maximum design supply fan airflow rate in cfm</p>	<p>As proposed</p> <p>As proposed</p>
On-site renewable energy	No on-site renewable energy shall be modeled in the <i>standard reference design</i> .	As proposed. On-site renewable energy sources energy shall not be considered to be consumed energy and shall not be included in the proposed building performance.
Shading from adjacent structures/terrain	Same as proposed.	For the <i>standard reference design</i> and the proposed building, shading by permanent structures and terrain shall be taken into account for computing energy consumption whether or not these features are located on the building site. A permanent fixture is one that is likely to remain for the life of the proposed design.
Service water heating	Fuel type: Same as proposed Efficiency: From Table C404.2 Capacity: Same as proposed	As proposed As proposed

Building Component Characteristics	Standard Reference Design	Proposed Design
	Same as proposed  Where no service water hot water system exists or is specified in the proposed design, no service hot water heating shall be modeled.	Demand: Service hot-water energy consumption shall be calculated explicitly based upon the volume of service hot water required and the entering makeup water and the leaving service hot water temperatures. Entering water temperatures shall be estimated based upon the location. Leaving temperatures shall be based upon the end-use requirements. Service water loads and usage shall be the same for both the <i>standard reference design</i> and the proposed design and shall be documented by the calculation procedures recommended by the manufacturer's specifications or generally accepted engineering methods.  As proposed

<sup>a</sup>Where no heating system exists or has been specified, the heating system shall be modeled as fossil fuel. The system characteristics shall be identical in both the standard reference design and proposed design.

<sup>b</sup>The ratio between the capacities used in the annual simulations and the capacities determined by sizing runs shall be the same for both the standard reference design and proposed design.

<sup>c</sup>Where no cooling system exists or no cooling system has been specified, the cooling system shall be modeled as an air-cooled single-zone system, one unit per thermal zone. The system characteristics shall be identical in both the standard reference design and proposed design.

NEW SECTION

**WAC 51-11C-407052 Table C407.5.1(2)—HVAC systems map.**

**Table C407.5.1(2)  
HVAC Systems Map**

Condenser Cooling Source <sup>a</sup>	Heating System Classification <sup>b</sup>	Standard Reference Design HVAC System Type <sup>c</sup>		
		Single-Zone Residential System	Single-Zone Nonresidential System	All Other
Water/ground	Electric resistance	System 5	System 5	System 1
	Heat pump	System 6	System 6	System 6
	Fossil fuel	System 7	System 7	System 2
	Electric resistance	System 8	System 9	System 3
Air/none	Heat pump	System 8	System 9	System 3
	Fossil fuel	System 10	System 11	System 4

<sup>a</sup>Select "water/ground" if the proposed design system condenser is water or evaporatively cooled; select "air/none" if the condenser is air cooled. Closed-circuit dry coolers shall be considered air cooled. Systems utilizing district cooling shall be treated as if the condenser water type were "water." If no mechanical cooling is specified or the mechanical cooling system in the proposed design does not require heat rejection, the system shall be treated as if the condenser water type were "Air." For proposed designs with ground-source or groundwater-source heat pumps, the standard reference design HVAC system shall be water-source heat pump (System 6).

<sup>b</sup>Select the path that corresponds to the proposed design heat source: Electric resistance, heat pump (including air source and water source), or fuel fired. Systems utilizing district heating (steam or hot water) and systems with no heating capability shall be treated as if the heating system type were "fossil fuel." For systems with mixed fuel heating sources, the system or systems that use the secondary heating source type (the one with the smallest total installed output capacity for the spaces served by the system) shall be modeled identically in the standard reference design and the primary heating source type shall be used to determine *standard reference design* HVAC system type.

“Select the *standard reference design* HVAC system category: The system under "single-zone residential system" shall be selected if the HVAC system in the proposed design is a single-zone system and serves a residential space. The system under "single-zone nonresidential system" shall be selected if the HVAC system in the proposed design is a single-zone system and serves other than residential spaces. The system under "all other" shall be selected for all other cases.

NEW SECTION

**WAC 51-11C-407053 Table C407.5.1(3)—Specifications for the standard reference design HVAC system description.**

**Table C407.5.1(3)  
Specifications for the Standard Reference Design HVAC System Descriptions**

System No.	System Type	Fan Control	Cooling Type	Heating Type
1	Variable air volume with parallel fan-powered boxes <sup>a</sup>	VAV <sup>d</sup>	Chilled water <sup>e</sup>	Electric resistance
2	Variable air volume with reheat <sup>b</sup>	VAV <sup>d</sup>	Chilled water <sup>e</sup>	Hot water fossil fuel boiler <sup>f</sup>
3	Packaged variable air volume with parallel fan-powered boxes <sup>a</sup>	VAV <sup>d</sup>	Direct expansion <sup>e</sup>	Electric resistance
4	Packaged variable air volume with reheat <sup>b</sup>	VAV <sup>d</sup>	Direct expansion <sup>e</sup>	Hot water fossil fuel boiler <sup>f</sup>
5	Two-pipe fan coil	Constant volume <sup>i</sup>	Chilled water <sup>e</sup>	Electric resistance
6	Water-source heat pump	Constant volume <sup>i</sup>	Direct expansion <sup>e</sup>	Electric heat pump and boiler <sup>g</sup>
7	Four-pipe fan coil	Constant volume <sup>i</sup>	Chilled water <sup>e</sup>	Hot water fossil fuel boiler <sup>f</sup>
8	Packaged terminal heat pump	Constant volume <sup>i</sup>	Direct expansion <sup>e</sup>	Electric heat pump <sup>h</sup>
9	Packaged rooftop heat pump	Constant volume <sup>i</sup>	Direct expansion <sup>e</sup>	Electric heat pump <sup>h</sup>
10	Packaged terminal air conditioner	Constant volume <sup>i</sup>	Direct expansion	Hot water fossil fuel boiler <sup>f</sup>
11	Packaged rooftop air conditioner	Constant volume <sup>i</sup>	Direct expansion	Fossil fuel furnace

For SI: 1 foot = 304.8 mm, 1 cfm/ft<sup>2</sup> = 0.0004719, 1 Btu/h = 0.293/W, °C = [(°F) - 32]/1.8.

<sup>a</sup>**VAV with parallel boxes:** Fans in parallel VAV fan-powered boxes shall be sized for 50 percent of the peak design flow rate and shall be modeled with 0.35 W/cfm fan power. Minimum volume setpoints for fan-powered boxes shall be equal to the minimum rate for the space required for ventilation consistent with Section C403.4.5, Exception 5. Supply air temperature setpoint shall be constant at the design condition.

<sup>b</sup>**VAV with reheat:** Minimum volume setpoints for VAV reheat boxes shall be 0.4 cfm/ft<sup>2</sup> of floor area. Supply air temperature shall be reset based on zone demand from the design temperature difference to a 10°F temperature difference under minimum load conditions. Design airflow rates shall be sized for the reset supply air temperature, i.e., a 10°F temperature difference.

<sup>c</sup>**Direct expansion:** The fuel type for the cooling system shall match that of the cooling system in the proposed design.

<sup>d</sup>**VAV:** When the proposed design system has a supply, return or relief fan motor horsepower (hp) requiring variable flow controls as required by Section C403.2.12, the corresponding fan in the VAV system of the standard reference design shall be modeled assuming a variable speed drive. For smaller fans, a forward-curved centrifugal fan with inlet vanes shall be modeled. If the proposed design's system has a direct digital control system at the

zone level, static pressure setpoint reset based on zone requirements in accordance with Section C403.4.2 shall be modeled.

<sup>e</sup>**Chilled water:** For systems using purchased chilled water, the chillers are not explicitly modeled. Otherwise, the standard reference design's chiller plant shall be modeled with chillers having the number as indicated in Table C407.5.1(4) as a function of standard reference building chiller plant load and type as indicated in Table C407.5.1(5) as a function of individual chiller load. Where chiller fuel source is mixed, the system in the standard reference design shall have chillers with the same fuel types and with capacities having the same proportional capacity as the proposed design's chillers for each fuel type. Chilled water supply temperature shall be modeled at 44°F design supply temperature and 56°F return temperature. Piping losses shall not be modeled in either building model. Chilled water supply water temperature shall be reset in accordance with Section C403.4.3.4. Pump system power for each pumping system shall be the same as the proposed design; if the proposed design has no chilled water pumps, the standard reference design pump power shall be 22 W/gpm (equal to a pump operating against a 75-foot head, 65-percent combined impeller and motor efficiency). The chilled water system shall be modeled as primary-only variable flow with flow maintained at the design rate through each chiller using a bypass. Chilled water pumps shall be modeled as riding the pump curve or with variable-speed drives when required in Section C403.4.3.4. The heat rejection device shall be an axial fan

cooling tower with variable speed fans if required in Section C403.4.4 or Section C403.2.12. Condenser water design supply temperature shall be 85°F or 10°F approach to design wet-bulb temperature, whichever is lower, with a design temperature rise of 10°F. The tower shall be controlled to maintain a 70°F leaving water temperature where weather permits, floating up to leaving water temperature at design conditions. Pump system power for each pumping system shall be the same as the proposed design; if the proposed design has no condenser water pumps, the standard reference design pump power shall be 19 W/gpm (equal to a pump operating against a 60-foot head, 60-percent combined impeller and motor efficiency). Each chiller shall be modeled with separate condenser water and chilled water pumps interlocked to operate with the associated chiller.

<sup>f</sup>**Fossil fuel boiler:** For systems using purchased hot water or steam, the boilers are not explicitly modeled. Otherwise, the boiler plant shall use the same fuel as the proposed design and shall be natural draft. The standard reference design boiler plant shall be modeled with a single boiler if the standard reference design plant load is 600,000 Btu/h and less and with two equally sized boilers for plant capacities exceeding 600,000 Btu/h. Boilers shall be staged as required by the load. Hot water supply temperature shall be modeled at 180°F design supply temperature and 130°F return temperature. Piping losses shall not be modeled in either building model. Hot water supply water temperature shall be reset in accordance with Section C403.4.3.4. Pump system power for each pumping system shall be the same as the proposed design; if the proposed design has no hot water pumps, the standard reference design pump power shall be 19 W/gpm (equal to a pump operating against a 60-foot head, 60-percent combined impeller and motor efficiency). The hot water system shall be modeled as primary only with continuous variable flow. Hot water pumps shall be modeled as riding the pump curve or with variable speed drives when required by Section C403.4.3.4.

<sup>g</sup>**Electric heat pump and boiler:** Water-source heat pumps shall be connected to a common heat pump water loop controlled to maintain temperatures between 60°F and 90°F. Heat rejection from the loop shall be provided by an axial fan closed-circuit evaporative fluid cooler with variable speed fans if required in Section C403.4.2 or Section C403.2.12. Heat addition to the loop shall be provided by a boiler that uses the same fuel as the proposed design and shall be natural draft. If no boilers exist in the proposed design, the standard reference building boilers shall be fossil fuel. The standard reference design boiler plant shall be modeled with a single boiler if the standard reference design plant load is 600,000 Btu/h or less and with two equally sized boilers for plant capacities exceeding 600,000 Btu/h. Boilers shall be staged as required by the load. Piping losses shall not be modeled in either building model. Pump system power shall be the same as the proposed design; if the proposed design has no pumps, the standard reference design pump power shall be 22 W/gpm, which is equal to a pump operating against a 75-foot head, with a 65-percent combined impeller and motor efficiency. Loop flow shall be variable with flow shutoff at each heat pump when its compressor cycles off as required by Section C403.4.3.3. Loop pumps shall be modeled as riding the pump curve or with variable speed drives when required by Section C403.4.3.4.

<sup>h</sup>**Electric heat pump:** Electric air-source heat pumps shall be modeled with electric auxiliary heat. The system shall be controlled with a multistage space thermostat and an outdoor air thermostat wired to energize auxiliary heat only on the last thermostat stage and when outdoor air temperature is less than 40°F.

<sup>i</sup>**Constant volume:** Fans shall be controlled in the same manner as in the proposed design; i.e., fan operation whenever the space is occupied or fan operation cycled on calls for heating and cooling. If the fan is modeled as cycling and the fan energy is included in the energy efficiency rating of the equipment, fan energy shall not be modeled explicitly.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11C-407054 Table C407.5.1(4)—Number of chillers.**

**Table C407.5.1(4)  
Number of Chillers**

Total Chiller Plant Capacity	Number of Chillers
≤ 300 tons	1
> 300 tons, < 600 tons	2, sized equally
≥ 600 tons	2 minimum, with chillers added so that no chiller is larger than 800 tons, all sized equally

For SI: 1 ton = 3517 W.

NEW SECTION

**WAC 51-11C-407055 Table C407.5.1(5)—Water chiller types.**

**Table C407.5.1(5)  
Water Chiller Types**

Individual Chiller Plant Capacity	Electric-Chiller Type	Fossil Fuel Chiller Type
≤ 100 tons	Reciprocating	Single-effect absorption, direct fired
> 100 tons, < 300 tons	Screw	Double-effect absorption, direct fired
≥ 300 tons	Centrifugal	Double-effect absorption, direct fired

For SI: 1 ton = 3517 W.

NEW SECTION

**WAC 51-11C-40706 Section C407.6—Calculation software tool.**

**C407.6 Calculation software tools.** Calculation procedures used to comply with this section shall be software tools capable of calculating the annual energy consumption of all building elements that differ between the *standard reference design* and the *proposed design* and shall include the following capabilities.

1. Building operation for a full calendar year (8,760 hours).
2. Climate data for a full calendar year (8,760 hours) and shall reflect *approved* coincident hourly data for temperature, solar radiation, humidity and wind speed for the building location.
3. Ten or more thermal zones.
4. Thermal mass effects.



5. Hourly variations in occupancy, illumination, receptacle loads, thermostat settings, mechanical ventilation, HVAC equipment availability, service hot water usage and any process loads.

6. Part-load performance curves for mechanical equipment.

7. Capacity and efficiency correction curves for mechanical heating and cooling equipment.

8. Printed *code official* inspection checklist listing each of the *proposed design* component characteristics from Table C407.5.1(1) determined by the analysis to provide compliance, along with their respective performance ratings (e.g., R-value, U-factor, SHGC, HSPF, AFUE, SEER, EF, etc.).

9. Air-side economizers with integrated control.

10. *Standard reference design* characteristics specified in Table C407.5.1(1).

**C407.6.1 Specific approval.** Performance analysis tools meeting the applicable subsections of Section C407 and tested according to ASHRAE Standard 140 shall be permitted to be *approved*. Tools are permitted to be *approved* based on meeting a specified threshold for a jurisdiction. The *code official* shall be permitted to approve tools for a specified application or limited scope.

**C407.6.2 Input values.** Where calculations require input values not specified by Sections C402, C403, C404 and C405, those input values shall be taken from an *approved* source.

**C407.6.3 Exceptional calculation methods.** When the *simulation program* does not model a design, material, or device of the *proposed design*, an Exceptional Calculation Method shall be used if approved by the *building official*. If there are multiple designs, materials, or devices that the *simulation program* does not model, each shall be calculated separately and Exceptional Savings determined for each. At no time shall the total Exceptional Savings constitute more than half of the difference between the *baseline building performance* and the *proposed building performance*. All applications for approval of an exceptional method shall include:

1. Step-by-step documentation of the Exceptional Calculation Method performed detailed enough to reproduce the results;

2. Copies of all spreadsheets used to perform the calculations;

3. A sensitivity analysis of *energy* consumption when each of the input parameters is varied from half to double the value assumed;

4. The calculations shall be performed on a time step basis consistent with the *simulation program* used;

5. The *Performance Rating* calculated with and without the Exceptional Calculation Method.

#### NEW SECTION

#### **WAC 51-11C-40800 Section C408—System commissioning.**

#### NEW SECTION

#### **WAC 51-11C-40801 Section C408.1—General.**

**C408.1 General.** This section covers the commissioning of the building mechanical systems in Section C403 and electrical power and lighting systems in Section C405. Prior to passing the final mechanical and electrical inspections or obtaining a certificate of occupancy, the *registered design professional* or approved agency shall provide evidence of systems *commissioning* and completion in accordance with the provisions of this section.

Copies of all documentation shall be given to the owner and made available to the *code official* upon request in accordance with Sections C408.1.2 and C408.1.3.

**C408.1.1 Commissioning plan.** A *commissioning plan* shall be developed by a *registered design professional* or approved agency and shall include the following items:

1. A narrative description of the activities that will be accomplished during each phase of commissioning, including the personnel intended to accomplish each of the activities.

2. Roles and responsibilities of the commissioning team.

3. A schedule of activities including systems testing and balancing, functional testing, and supporting documentation.

4. A listing of the specific equipment, appliances or systems to be tested and a description of the tests to be performed.

5. Functions to be tested.

6. Conditions under which the test will be performed.

7. Measurable criteria for performance.

**C408.1.2 Preliminary commissioning report.** A preliminary report of commissioning test procedures and results shall be completed and certified by the *registered design professional* or *approved agency* and provided to the building owner. The report shall be identified as "Preliminary Commissioning Report" and shall identify:

1. Itemization of deficiencies found during testing required by this section that have not been corrected at the time of report preparation.

2. Deferred tests that cannot be performed at the time of report preparation because of climatic conditions, with anticipated date of completion.

3. Climatic conditions required for performance of the deferred tests.

4. Record of progress and completion of operator training.

**C408.1.2.1 Acceptance of report.** *Buildings*, or portions thereof, shall not pass the final mechanical and electrical inspections or obtain a certificate of occupancy, until such time as the *code official* has received a letter of transmittal from the *building* owner acknowledging that the *building* owner has received the Preliminary Commissioning Report. Completion of the Commissioning Compliance Checklist (Figure C408.1.2.1) is deemed to satisfy this requirement.

**C408.1.2.2 Copy of report.** The *code official* shall be permitted to require that a copy of the Preliminary Commissioning Report be made available for review by the *code official*.

**C408.1.3 Documentation requirements.** The *construction documents* shall specify that the *documents* described in this section be provided to the *building owner* within 90 days of the date of receipt of the *certificate of occupancy*.

**C408.1.3.1 Record documents.** Construction documents shall be updated to convey a record of the alterations to the original design. Such updates shall include updated mechanical, electrical and control drawings red-lined, or redrawn if specified, that show all changes to size, type and locations of components, equipment and assemblies.

**C408.1.3.2 Manuals.** An operating and maintenance manual shall be provided and include all of the following:

1. Submittal data stating equipment size and selected options for each piece of equipment requiring maintenance.
2. Manufacturer's operation manuals and maintenance manuals for each piece of equipment requiring maintenance, except equipment not furnished as part of the project. Required routine maintenance actions shall be clearly identified.
3. Name and address of at least one service agency.
4. Controls system maintenance and calibration information, including wiring diagrams, schematics, record documents, and control sequence descriptions. Desired or field-determined setpoints shall be permanently recorded on control drawings at control devices or, for digital control systems, in system programming instructions.

5. A narrative of how each system is intended to operate, including recommended setpoints. Sequence of operation is not acceptable for this requirement.

**C408.1.3.3 System balancing report.** A written report describing the activities and measurements completed in accordance with Section C408.2.2.

**C408.1.3.4 Final commissioning report.** A report of test procedures and results identified as "Final Commissioning Report" shall be delivered to the building owner and shall include:

1. Results of functional performance tests.
2. Disposition of deficiencies found during testing, including details of corrective measures used or proposed.
3. Functional performance test procedures used during the commissioning process including measurable criteria for test acceptance, provided herein for repeatability.

EXCEPTION: Deferred tests which cannot be performed at the time of report preparation due to climatic conditions.

**C408.1.4 Systems operation training.** Training of the maintenance staff for equipment included in the manuals required by Section C408.1.5.2 shall include at a minimum:

1. Review of systems documentation.
2. Hands-on demonstration of all normal maintenance procedures, normal operating modes, and all emergency shut-down and start-up procedures.
3. Training completion report.

NEW SECTION

**WAC 51-11C-408012 Figure C408.1.2.1—Commissioning compliance checklist.**

**Figure C408.1.2.1  
Commissioning Compliance Checklist**

<b>Project Information</b>	<b>Project Name:</b>
	<b>Project Address:</b>
	<b>Commissioning Authority:</b>
<b>Commissioning Plan</b> (Section 408.1.1)	<input type="checkbox"/> <b>Commissioning Plan was used during construction and included items below</b> <ul style="list-style-type: none"> <li>• A narrative description of activities and the personnel intended to accomplish each one</li> <li>• Measurable criteria for performance</li> <li>• Functions to be tested</li> </ul>
<b>Systems Balancing</b> (Section C408.2.2)	<input type="checkbox"/> <b>Systems Balancing has been completed</b> <ul style="list-style-type: none"> <li>• Air and Hydronic systems are proportionately balanced in a manner to first minimize throttling losses.</li> <li>• Test ports are provided on each pump for measuring pressure across the pump.</li> </ul>
<b>Functional Testing</b> (Section C408.2.3, C408.3.1, C408.4.1, C408.4.1.3 and C408.5.1)	<input type="checkbox"/> <b>HVAC Systems Equipment Testing has been completed</b> (Section C408.2.3.1) HVAC equipment has been tested to demonstrate the installation and operation of components, systems and system-to-system interfacing relationships in accordance with approved plans and specifications <input type="checkbox"/> <b>HVAC Controls Functional Testing has been completed</b> (Section C408.2.3.2) HVAC controls have been tested to ensure that control devices are calibrated, adjusted and operate properly. Sequences of operation have been functionally tested to ensure they operate in accordance with approved plans and specifications <input type="checkbox"/> <b>Economizers Functional Testing has been completed</b> (Section C408.2.3.3) Economizers operate in accordance with manufacturer's specifications <input type="checkbox"/> <b>Lighting Controls Functional Testing has been completed</b> (Section C408.3.1) Lighting controls have been tested to ensure that control devices, components, equipment, and systems are calibrated, adjusted and operate in accordance with approved plans and specifications

	<input type="checkbox"/> <b>Service Water Heating System Functional Testing has been completed</b> (Section C408.4.1) Service water heating equipment has been tested to ensure that control devices, components, equipment, and systems are calibrated, adjusted and operate in accordance with approved plans and specifications <input type="checkbox"/> <b>Pool and Spa Functional Testing has been completed</b> (Section C408.4.1.3) Pools and spas have been tested to ensure that service water heating equipment, time switches and heat recovery equipment are calibrated, adjusted and operate in accordance with approved plans and specifications <input type="checkbox"/> <b>Metering System Functional Testing has been completed</b> (Section C408.5.1) Energy source meters, energy end-use meters, the energy metering data acquisition system and required display are calibrated adjusted and operate in accordance with approved plans and specification
<b>Supporting Documents</b> (Section 408.1.3.2)	<input type="checkbox"/> <b>Manuals, record documents and training have been completed or are scheduled</b> <ul style="list-style-type: none"> <li>• System documentation has been provided to the owner or scheduled date: _____</li> <li>• Record documents have been submitted to owner or scheduled date: _____</li> <li>• Training has been completed or scheduled date: _____</li> </ul>
<b>Commissioning Report</b> (Section C408.1.2)	<input type="checkbox"/> <b>Preliminary Commissioning Report submitted to Owner and includes items below</b> <ul style="list-style-type: none"> <li>• Deficiencies found during testing required by this section which have not been corrected at the time of report preparation</li> <li>• Deferred tests, which cannot be performed at the time of report preparation due to climatic conditions</li> </ul>
<b>Certification</b>	<input type="checkbox"/> I hereby certify that all requirements for Commissioning have been completed in accordance with Washington State Energy Codes, including all items above  <div style="display: flex; justify-content: space-between;"> <span>_____</span> <span>_____</span> </div> <div style="display: flex; justify-content: space-between;"> <span>Building Owner or Owner's Representative</span> <span>Date</span> </div>

NEW SECTION

**WAC 51-11C-40802 Section C408.2—Mechanical systems commissioning and completion requirements.**

**C408.2 Mechanical systems commissioning and completion requirements.** Mechanical equipment and controls shall comply with Section C408.2.

Construction document notes shall clearly indicate provisions for *commissioning* and completion requirements in accordance with this section and are permitted to refer to specifications for further requirements. Exception: Systems which (a) qualify as simple systems using the criteria in Section C403.3, (b) are not required to have an economizer per Section C403.3.1, and (c) where the building total mechanical equipment capacity is less than 480,000 Btu/h (140,690 W) cooling capacity and 600,000 Btu/h (175,860 W) heating capacity.

**C408.2.1 Reserved.**

**C408.2.2 Systems adjusting and balancing.** HVAC systems shall be balanced in accordance with generally accepted engineering standards. Air and water flow rates shall be measured and adjusted to deliver final flow rates within the tolerances provided in the product specifications. Test and balance activities shall include air system and hydronic system balancing.

**C408.2.2.1 Air systems balancing.** Each supply air outlet and *zone* terminal device shall be equipped with means for air balancing in accordance with the requirements of Chapter 6 of the *International Mechanical Code*. Discharge dampers are prohibited on constant volume fans and variable volume fans with motors 10 hp (18.6 kW) and larger. Air systems shall be balanced in a manner to first minimize throttling losses then, for fans with system power of greater than 1 hp (0.74 kW), fan speed shall be adjusted to meet design flow conditions.

EXCEPTION: Fans with fan motors of 1 hp (0.74 kW) or less.

**C408.2.2.2 Hydronic systems balancing.** Individual hydronic heating and cooling coils shall be equipped with means for balancing and measuring flow. Hydronic systems shall be proportionately balanced in a manner to first minimize throttling losses, then the pump impeller shall be trimmed or pump speed shall be adjusted to meet design flow conditions. Each hydronic system shall have either the capability to measure pressure across the pump, or test ports at each side of each pump.

EXCEPTIONS:

1. Pumps with pump motors of 5 hp (3.7 kW) or less.
2. Where throttling results in no greater than five percent of the nameplate horsepower draw above that required if the impeller were trimmed.

**C408.2.3 Functional performance testing.** Functional performance testing specified in Sections C408.2.3.1 through C408.2.3.3 shall be conducted. Written procedures which clearly describe the individual systematic test procedures, the expected systems' response or acceptance criteria for each procedure, the actual response or findings, and any pertinent discussion shall be followed. At a minimum, testing shall affirm operation during actual or simulated winter and summer design conditions and during full outside air conditions.

**C408.2.3.1 Equipment.** Equipment functional performance testing shall demonstrate the installation and operation of components, systems, and system-to-system interfacing relationships in accordance with approved plans and specifications such that operation, function, and maintenance serviceability for each of the commissioned systems is confirmed. Testing shall include all modes and *sequence of operation*, including under full-load, part-load and the following emergency conditions:

1. All modes as described in the *sequence of operation*;
2. Redundant or *automatic* back-up mode;
3. Performance of alarms; and

4. Mode of operation upon a loss of power and restoration of power.

**C408.2.3.2 Controls.** HVAC control systems shall be tested to document that control devices, components, equipment, and systems are calibrated, adjusted and operate in accordance with approved plans and specifications. Sequences of operation shall be functionally tested to document they operate in accordance with *approved* plans and specifications.

**C408.2.3.3 Economizers.** Air economizers shall undergo a functional test to determine that they operate in accordance with manufacturer's specifications.

#### NEW SECTION

**WAC 51-11C-40803 Section C408.3—Lighting system functional testing.**

**C408.3 Lighting system functional testing.** Controls for automatic lighting systems shall comply with Section C408.3.1.

**C408.3.1 Functional testing.** Testing shall ensure that control hardware and software are calibrated, adjusted, programmed and in proper working condition in accordance with the construction documents and manufacturer's installation instructions. Written procedures which clearly describe the individual systematic test procedures, the expected systems' response or acceptance criteria for each procedure, the actual response or findings, and any pertinent discussion shall be followed. At a minimum, testing shall affirm operation during normally occupied daylight conditions. The construction documents shall state the party who will conduct the required functional testing.

Where occupant sensors, time switches, programmable schedule controls, photosensors or daylighting controls are installed, the following procedures shall be performed:

1. Confirm that the placement, sensitivity and time-out adjustments for occupant sensors yield acceptable performance.

2. Confirm that the time switches and programmable schedule controls are programmed to turn the lights off.

3. Confirm that the placement and sensitivity adjustments for photosensor controls reduce electric light based on the amount of usable daylight in the space as specified.

#### NEW SECTION

**WAC 51-11C-40804 Section C408.4—Service water heating systems commissioning and completion requirements.**

**C408.4 Service water heating systems commissioning and completion requirements.** Service water heating equipment and controls shall comply with Section C408.4. Construction document notes shall clearly indicate provisions for *commissioning* and completion requirements in accordance with this section and are permitted to refer to specifications for further requirements.

EXCEPTION: The following systems are exempt from the commissioning requirements:

1. Service water heating systems in buildings where the largest service water heating system capacity is less than 200,000 Btu/h (58,562 W) and where there are no pools or in-ground permanently installed spas.

**C408.4.1 Functional performance testing.** Functional performance testing specified in Sections C408.4.1.1 through C408.4.1.3 shall be conducted. Written procedures which clearly describe the individual systematic test procedures, the expected systems' response or acceptance criteria for each procedure, the actual response or findings, and any pertinent discussion shall be followed. At a minimum, testing shall affirm operation with the system under 50 percent water heating load.

**C408.4.1.1 Equipment.** Equipment functional performance testing shall demonstrate the installation and operation of components, systems, and system-to-system interfacing relationships in accordance with approved plans and specifications such that operation, function, and maintenance serviceability for each of the commissioned systems is confirmed. Testing shall include all modes and *sequence of operation*, including under full-load, part-load and the following emergency conditions:

1. Redundant or *automatic* back-up mode;
2. Performance of alarms; and

3. Mode of operation upon a loss of power and restoration of power.

**C408.4.1.2 Controls.** Service water heating controls shall be tested to document that control devices, components, equipment, and systems are calibrated, adjusted and operate in accordance with approved plans and specifications. Sequences of operation shall be functionally tested to document they operate in accordance with *approved* plans and specifications.

**C408.4.1.3 Pools and spas.** Service water heating equipment, time switches, and heat recovery equipment which serve pools and in-ground permanently installed spas shall undergo a functional test to determine that they operate in accordance with manufacturer's specifications.

#### NEW SECTION

**WAC 51-11C-40805 Section C408.5—Metering system commissioning.**

**C408.5 Metering system commissioning.** Energy metering systems required by Section C409 shall comply with Section C408.5 and be included in the commissioning process required by Section C408.1. Construction documents shall clearly indicate provisions for *commissioning* in accordance with Section C408 and are permitted to refer to specifications for further requirements.

**C408.5.1 Functional testing.** Functional testing shall be conducted by following written procedures which clearly describe the individual systematic test procedures, the expected systems' response or acceptance criteria for each procedure, the actual response or findings, and any pertinent discussion. Functional testing shall document that energy source meters, energy end-use meters, the energy metering data acquisition system, and required energy consumption

display are calibrated, adjusted and operate in accordance with approved plans and specifications. At a minimum, testing shall confirm that:

1. The metering system devices and components work properly under low and high load conditions.
2. The metered data is delivered in a format that is compatible with the data collection system.
3. The energy display is accessible to building operation and management personnel.
4. The energy display meets code requirements regarding views required in Section C409.4.3. The display shows energy data in identical units (e.g., kWh).

#### NEW SECTION

#### **WAC 51-11C-40900 Section C409—Energy metering and energy consumption management.**

#### NEW SECTION

#### **WAC 51-11C-40901 Section C409.1—General.**

**C409.1 General.** Buildings with a gross conditioned floor area over 20,000 square feet shall comply with Section C409. Buildings shall be equipped to measure, monitor, record and display energy consumption data for each energy source and end use category per the provisions of this section, to enable effective energy management.

**EXCEPTION:** Tenant spaces within buildings if the following conditions are met:

1. The tenant space has its own utility services and utility meters; and
2. The tenant space is less than 10,000 square feet gross conditioned floor area.

**C409.1.1 Alternate metering methods.** Where approved by the building official, energy use metering systems may differ from those required by this section, provided that they are permanently installed and that the source energy measurement, end use category energy measurement, data storage and data display have similar accuracy to and are at least as effective in communicating actionable energy use information to the building management and users, as those required by this section.

**C409.1.2 Conversion factor.** Any threshold stated in kW shall include the equivalent BTU/heating and cooling capacity of installed equipment at a conversion factor of 3,412 Btu per kW at 50 percent demand.

#### NEW SECTION

#### **WAC 51-11C-40902 Section C409.2—Energy source metering.**

**C409.2 Energy source metering.** Buildings shall have a meter at each energy source. For each energy supply source listed in Section C409.2.1 through C409.2.4, meters shall collect data for the whole building or for each separately metered portion of the building where permitted by the Exception to Section C409.1.

**EXCEPTIONS:**

1. Energy source metering is not required where end use metering for an energy source accounts for all usage of that energy type within a building, and the

data acquisition system accurately totals the energy delivered to the building or separately metered portion of the building.

2. Solid fuels such as coal, firewood or wood pellets that are delivered via mobile transportation do not require metering.

**C409.2.1 Electrical energy.** This category shall include all electrical energy supplied to the building and its associated site, including site lighting, parking, recreational facilities, and other areas that serve the building and its occupants.

**C409.2.2 Gas and liquid fuel supply energy.** This category shall include all natural gas, fuel oil, propane and other gas or liquid fuel energy supplied to the building and site.

**C409.2.3 District energy.** This category shall include all net energy extracted from district steam systems, district chilled water loops, district hot water systems, or other energy sources serving multiple buildings.

**C409.2.4 Site-generated renewable energy.** This category shall include all net energy generated from on-site solar, wind, geothermal, tidal or other natural sources.

#### NEW SECTION

#### **WAC 51-11C-40903 Section C409.3—End-use metering.**

**C409.3 End-use metering.** Meters shall be provided to collect energy use data for each end-use category listed in Sections C409.3.1 through C409.3.2. These meters shall collect data for the whole building or for each separately metered portion of the building where permitted by the Exception to Section C409.1. Multiple meters may be used for any end-use category, provided that the data acquisition system totals all of the energy used by that category.

**EXCEPTIONS:**

1. HVAC and water heating equipment serving only an individual dwelling unit does not require end-use metering.
2. Separate metering is not required for fire pumps, stairwell pressurization fans or other life safety systems that operate only during testing or emergency.
3. End use metering is not required for individual tenant spaces not exceeding 2,500 square feet in floor area when a dedicated source meter meeting the requirements of Section C409.4.1 is provided for the tenant space.

**C409.3.1 HVAC system energy use.** This category shall include all energy including electrical, gas, liquid fuel, district steam and district chilled water that is used by boilers, chillers, pumps, fans and other equipment used to provide space heating, space cooling, dehumidification and ventilation to the building, but not including energy that serves process loads, water heating or miscellaneous loads as defined in Section C409.3. Multiple HVAC energy sources, such as gas, electric and steam, are not required to be summed together.

**EXCEPTIONS:**

1. All 120 volt equipment.
2. 208/120 volt equipment in a building where the main service is 480/277 volt power.

**C409.3.2 Water heating energy use.** This category shall include all energy used for heating of domestic and service hot water, but not energy used for space heating.

EXCEPTION: Water heating energy use less than 50 kW does not require end-use metering.

NEW SECTION

**WAC 51-11C-40904 Section C409.4—Measurement devices, data acquisition system and energy display.**

**C409.4 Measurement devices, data acquisition system and energy display.**

**C409.4.1 Meters.** Meters and other measurement devices required by this section shall have local displays or be configured to automatically communicate energy data to a data acquisition system. Source meters may be any digital-type meters. Current sensors or flow meters are allowed for end use metering, provided that they have a tested accuracy of +/- 2%. All required metering systems and equipment shall provide at least hourly data that is fully integrated into the data acquisition and display system per the requirements of Section C409.

**C409.4.2 Data acquisition system.** The data acquisition system shall store the data from the required meters and other sensing devices for a minimum of 36 months. For each energy supply and end use category required by C409.2 and C409.3, it shall provide real-time energy consumption data and logged data for any hour, day, month or year.

**C409.4.3 Energy display.** For each building subject to Section C409.2 and C409.3, a permanent, readily accessible and visible display shall be provided in the building accessible by building operation and management personnel. The display shall graphically provide the current energy consumption rate for each whole building energy source, plus each end use category, as well as the average and peak values for any day, week or year.

**C409.4.4 Commissioning.** The entire system shall be commissioned in accordance with Section C408.5. Deficiencies found during testing shall be corrected and retested and the

commissioning report shall be updated to confirm that the entire metering and data acquisition and display system is fully functional.

NEW SECTION

**WAC 51-11C-40905 Section C409.5—Metering for existing buildings.**

**C409.5 Metering for existing buildings.**

**C409.5.1 Existing buildings that were constructed subject to the requirements of this section.** Where new or replacement systems or equipment are installed in an existing building that was constructed subject to the requirements of this section, metering shall be provided for such new or replacement systems or equipment so that their energy use is included in the corresponding end-use category defined in Section C409.2. This includes systems or equipment added in conjunction with additions or alterations to existing buildings.

**C409.5.1.1 Small existing buildings.** For existing buildings smaller than 20,000 square feet that were subject to the requirements of this section, where an addition increases the total conditioned floor area by more than 50 percent of the existing building area and causes the total building conditioned floor area to exceed 20,000 square feet, metering and data acquisition system shall be provided for the new addition in accordance with the requirements of sections C409.2 and C409.3.

NEW SECTION

**WAC 51-11C-50000 Chapter 5 [CE]—Referenced standards.** This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section 106.

<b>AAMA</b>	American Architectural Manufacturers Association 1827 Walden Office Square Suite 550 Schaumburg, IL 60173-4268	
Standard reference number	Title	Referenced in code section number
AAMA/WDMA/CSA 101/I.S.2/A C440—11	North American Fenestration Standard/Specifications for Windows, Doors and Unit Skylights	Table C402.4.3
<b>AHAM</b>	Association of Home Application Manufacturers 1111 19th Street, N.W., Suite 402 Washington, D.C. 20036	
Standard reference number	Title	Referenced in code section number
ANSI/AHAM RAC-1—2008	Room Air Conditioners	Table C403.2.3(3)

<b>AHRI</b>		
Air Conditioning, Heating, and Refrigeration Institute 4100 North Fairfax Drive, Suite 200 Arlington, VA 22203		
Standard reference number	Title	Referenced in code section number
<b>ISO/AHRI/ASHRAE</b>		
13256-1 (2005)	Water-source Heat Pumps - Testing and Rating for Performance - Part 1: Water-to-air and Brine-to-air Heat Pumps	Table C403.2.3(2)
13256-2 (1998)	Water-source Heat Pumps - Testing and Rating for Performance - Part 2: Water-to-water and Brine-to-water Heat Pumps	Table C403.2.3(2)
210/240—08	Unitary Air Conditioning and Air-source Heat Pump Equipment	Table C403.2.3(1), Table C403.2.3(2)
310/380—04	Standard for Packaged Terminal Air Conditioners and Heat Pumps	Table C403.2.3(3)
340/360—2007	Commercial and Industrial Unitary Air-conditioning and Heat Pump Equipment	Table C403.2.3(1), Table C403.2.3(2)
365—09	Commercial and Industrial Unitary Air-conditioning Condensing Units	Table C403.2.3(1), Table C403.2.3(6)
390—03	Performance Rating of Single Package Vertical Air Conditioners and Heat Pumps	Table C403.2.3(3)
400—01	Liquid to Liquid Heat Exchangers with Addendum 2	Table C403.2.3(9)
440—08	Room Fan Coil	C403.2.8
460—05	Performance Rating Remote Mechanical Draft Air-cooled Refrigerant Condensers	Table C403.2.3(8)
550/590—03	Water Chilling Packages Using the Vapor Compression Cycle—with Addenda	C403.2.3.1, Table C403.2.3(7), Table C406.2(6)
560—00	Absorption Water Chilling and Water-heating Packages	Table C403.2.3(7)
1160—08	Performance Rating of Heat Pump Pool Heaters	Table C404.2
<b>AMCA</b>		
Air Movement and Control Association International 30 West University Drive Arlington Heights, IL 60004-1806		
Standard reference number	Title	Referenced in code section number
500D—10	Laboratory Methods for Testing Dampers for Rating	C402.4.5.1, C402.4.5.2
<b>ANSI</b>		
American National Standards Institute 25 West 43rd Street Fourth Floor New York, NY 10036		
Standard reference number	Title	Referenced in code section number

Z21.10.3/CSA 4.3—04	Gas Water Heaters, Volume III—Storage Water Heaters with Input Ratings Above 75,000 Btu per Hour, Circulating Tank and Instantaneous	.....	Table C404.2
Z21.47/CSA 2.3—06	Gas-fired Central Furnaces	.....	Table C403.2.3(4), Table C406.2(4)
Z83.8/CSA 2.6—09	Gas Unit Heaters, Gas Packaged Heaters, Gas Utility Heaters and Gas-fired Duct Furnaces	.....	Table C403.2.3(4), Table C406.2(4)
<b>ASHRAE</b>	American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle, N.E. Atlanta, GA 30329-2305		
Standard reference number	Title		Referenced in code section number
<b>ANSI/ASHRAE/ACCA</b>			
Standard 127-2007	Method of Testing for Rating Computer and Data Processing Room Unitary Air Conditioners	.....	C403.4.1
Standard 183—2007	Peak Cooling and Heating Load Calculations in Buildings, Except Low-rise Residential Buildings	.....	C403.2.1
ASHRAE—2004	ASHRAE HVAC Systems and Equipment Handbook—2004	.....	C403.2.1
<b>ISO/AHRI/ASHRAE</b>			
13256-1 (2005)	Water-source Heat Pumps—Testing and Rating for Performance—Part 1: Water-to-air and Brine-to-air Heat Pumps	.....	Table C403.2.3(2)
<b>ISO/AHRI/ASHRAE</b>			
13256-2 (1998)	Water-source Heat Pumps—Testing and Rating for Performance—Part 2: Water-to-water and Brine-to-water Heat Pumps	.....	Table C403.2.3(2)
90.1—2010E	Energy Standard for Buildings Except Low-rise Residential Buildings (ANSI/ASHRAE/IESNA 90.1—2010)	.....	C401.2, C401.2.1, C402.1.1, Table C402.1.2, Table C402.2, Table C407.6.1
119—88 (RA 2004)	Air Leakage Performance for Detached Single-family Residential Buildings	.....	Table C405.5.2(1)
140—2010	Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs	.....	C407.6.1
146—2006	Testing and Rating Pool Heaters	.....	Table C404.2
<b>ASTM</b>	ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2859		
Standard reference number	Title		Referenced in code section number
C 90—08	Specification for Load-bearing Concrete Masonry Units	.....	Table C402.2
C 1371—04	Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers	.....	Table C402.2.1.1



C 1549—04	Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using A Portable Solar Reflectometer	.....	Table C405.2.1.1
D 1003—07e1	Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics	.....	C402.3.2.2
E 283—04	Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen	.....	Table C402.2.1.1, C402.4.1.2.2, Table C402.4.3, C402.4.4, C402.4.8
E 408—71 (2002)	Test Methods for Total Normal Emittance of Surfaces Using Inspection-meter Techniques	.....	Table C402.2.1.1
E 779—03	Standard Test Method for Determining Air Leakage Rate by Fan Pressurization	.....	C402.4.1.2.3
E 903—96	Standard Test Method Solar Absorptance, Reflectance and Transmittance of Materials Using Integrating Spheres (Withdrawn 2005)	.....	Table C402.2.1.1
E 1677—05	Standard Specification for an Air-retarder (AR) Material or System for Low-rise Framed Building Walls	.....	C402.4.1.2.2
E 1918—97	Standard Test Method for Measuring Solar Reflectance of Horizontal or Low-sloped Surfaces in the Field	.....	Table C402.2.1.1
E 1980—(2001)	Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-sloped Opaque Surfaces	.....	Table C402.2.1.1
E 2178—03	Standard Test Method for Air Permanence of Building Materials	.....	C402.4.1.2.1
E 2357—05	Standard Test Method for Determining Air Leakage of Air Barriers Assemblies	.....	C404.1.2.2
<b>CSA</b>	Canadian Standards Association 5060 Spectrum Way Mississauga, Ontario, Canada L4W 5N6		
Standard reference number	Title		Referenced in code section number
AAMA/WDMA/CSA 101/I.S.2/A440—11	North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights	.....	R402.4.3
<b>CTI</b>	Cooling Technology Institute 2611 FM 1960 West, Suite A-101 Houston, TX 77068		
Standard reference number	Title		Referenced in code section number
ATC 105 (00)	Acceptance Test Code for Water Cooling Tower	.....	Table C403.2.3(8)
STD 201—09	Standard for Certification of Water Cooling Towers Thermal Performances	.....	Table C403.2.3(8)
<b>DASMA</b>	Door and Access Systems Manufacturers Association 1300 Sumner Avenue Cleveland, OH 44115-2851		
Standard reference number	Title		Referenced in code section number

105—92 (R2004)	Test Method for Thermal Transmittance and Air Infiltration of Garage Doors	.....	Table C402.4.3
<b>DOE</b>	U.S. Department of Energy c/o Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20402-9325		
Standard reference number	Title		Referenced in code section number
10 C.F.R., Part 430—1998	Energy Conservation Program for Consumer Products: Test Procedures and Certification and Enforcement Requirement for Plumbing Products; and Certification and Enforcement Requirements for Residential Appliances; Final Rule	.....	Table C403.2.3(4), Table C403.2.3(5), Table C404.2, Table C406.2(4), Table C406.2(5)
10 C.F.R., Part 430, Subpart B, Appendix N—1998	Uniform Test Method for Measuring the Energy Consumption of Furnaces and Boilers	.....	C202
10 C.F.R., Part 431—2004	Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures and Efficiency Standards; Final Rules	.....	Table C403.2.3(5), Table C406.2(5)
NAECA 87—(88)	National Appliance Energy Conservation Act 1987 [(Public Law 100-12 (with Amendments of 1988-P.L. 100-357)]	.....	Tables C403.2.3 (1), (2), (4)
<b>ICC</b>	International Code Council, Inc. 500 New Jersey Avenue, N.W., 6th Floor Washington , DC 20001		
Standard reference number	Title		Referenced in code section number
IBC—12	International Building Code	.....	C201.3, C303.2, C402.4.4
IFC—12	International Fire Code	.....	C201.3
IFGC—12	International Fuel Gas Code	.....	C201.3
IMC—12	International Mechanical Code	.....	C403.2.5, C403.2.5.1, C403.2.6, C403.2.7, C403.2.7.1, C403.2.7.1.1, C403.2.7.1.2, C403.2.7.1.3, C403.4.5, C408.2.2.1
IPC—12	International Plumbing Code	.....	C201.3
<b>IESNA</b>	Illuminating Engineering Society of North America 120 Wall Street, 17th Floor New York, NY 10005-4001		
Standard reference number	Title		Referenced in code section number
ANSI/ASHRAE/IESNA 90.1—2010	Energy Standard for Buildings Except Low-rise Residential Buildings	.....	C401.2, C401.2.1, C402.1.1, Table C402.1.2, Table C402.2, Table C407.6.1
<b>ISO</b>	International Organization for Standardization 1, rue de Varembe, Case postale 56, CH-1211		

Geneva, Switzerland		
Standard reference number	Title	Referenced in code section number
ISO/AHRI/ASHRAE 13256-1 (2005)	Water-source Heat Pumps—Testing and Rating for Performance—Part 1: Water-to-air and Brine-to-air Heat Pumps	C403.2.3(2)
ISO/AHRI/ASHRAE 13256-2 (1998)	Water-Source Heat Pumps—Testing and Rating for Performance—Part 2: Water-to-water and Brine-to-water Heat Pumps	C403.2.3(2)
<b>NFRC</b>	National Fenestration Rating Council, Inc. 6305 Ivy Lane, Suite 140 Greenbelt, MD 20770	
Standard reference number	Title	Referenced in code section number
100—2009	Procedure for Determining Fenestration Products U-factors—Second Edition	C303.1.2, C402.2.1
200—2009	Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence—Second Edition	C303.1.3, C402.3.1.1
400—2009	Procedure for Determining Fenestration Product Air Leakage—Second Edition	Table C402.4.3
<b>SMACNA</b>	Sheet Metal and Air Conditioning Contractors National Association, Inc. 4021 Lafayette Center Drive Chantilly, VA 20151-1209	
Standard reference number	Title	Referenced in code section number
SMACNA—85	HVAC Air Duct Leakage Test Manual	C403.2.7.1.3
<b>UL</b>	Underwriters Laboratories 333 Pfingsten Road Northbrook, IL 60062-2096	
Standard reference number	Title	Referenced in code section number
727—06	Oil-fired Central Furnaces—with Revisions through April 2010	Table C403.2.3(4), Table C406.2(4)
731—95	Oil-fired Unit Heaters—with Revisions through April 2010	Table C403.2.3(4), Table C406.2(4)
<b>US-FTC</b>	United States-Federal Trade Commission 600 Pennsylvania Avenue N.W. Washington, DC 20580	
Standard reference number	Title	Referenced in code section number
C.F.R. Title 16 (May 31, 2005)	R-value Rule	C303.1.4
<b>WDMA</b>	Window and Door Manufacturers Association 1400 East Touhy Avenue, Suite 470 Des Plaines, IL 60018	
Standard reference number	Title	Referenced in code section number

AAMA/WDMA/CSA 101/I.S.2/A440—11	North American Fenestration Standard/Specifi- cation for Windows, Doors and Unit Skylights . . . . .	Table C402.4.3
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**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

NEW SECTION

**WAC 51-11C-60000 Appendix A—Default heal loss coefficients.**

assumptions in the following sections are used, along with data from the sources referenced above.

NEW SECTION

**WAC 51-11C-61010 Section A101—General.**

NEW SECTION

**WAC 51-11C-61013 Section A101.3—Air films.**

**A101.3 Air films.** Default R-values used for air films shall be as follows:

NEW SECTION

**WAC 51-11C-61011 Section A101.1—Scope.**

**A101.1 Scope.** The following defaults shall apply to Chapter 4 of both the (RE) and (CE) sections of the IECC. This chapter includes tables of seasonal average heat loss coefficients for specified nominal insulation.

R-Value	Condition
0.17	All exterior surfaces
0.61	Interior horizontal surfaces, heat flow up
0.92	Interior horizontal surfaces, heat flow down
0.68	Interior vertical surfaces

NEW SECTION

**WAC 51-11C-61012 Section A101.2—Description.**

**A101.2 Description.** These coefficients were developed primarily from data and procedures from the ASHRAE Fundamentals Handbook.

Coefficients not contained in this chapter may be computed using the procedures listed in this reference if the

NEW SECTION

**WAC 51-11C-61014 Section A101.4—Compression of insulation.**

**A101.4 Compression of insulation.** Insulation which is compressed shall be rated in accordance with Table A101.4 or reduction in value may be calculated in accordance with the procedures in the ASHRAE Fundamentals Handbook.

**Table A101.4  
R-value of Fiberglass Batts Compressed Within Various Depth Cavities**

Insulation R-Values at Standard Thickness													
Rated R-Value		82	71	60	49	38	30	22	21	19	15	13	11
Standard Thickness, Inches		26.0	22.5	19.0	15.5	12	9.5	6.5	5.5	6	3.5	3.5	3.5
Nominal Lumber Sizes, Inches	Actual Depth of Cavity, Inches	Insulation R-Values when Installed in a Confined Cavity											
		Truss	26.0	82	—	—	—	—	—	—	—	—	—
Truss	22.5	—	71	—	—	—	—	—	—	—	—	—	—
Truss	19.0	—	—	60	—	—	—	—	—	—	—	—	—
Truss	15.5	—	—	—	49	—	—	—	—	—	—	—	—
Truss	12.0	—	—	—	—	38	—	—	—	—	—	—	—
2 x 12	11.25	—	—	—	—	37	—	—	—	—	—	—	—
2 x 10	9.25	—	—	—	—	32	30	—	—	—	—	—	—
2 x 8	7.25	—	—	—	—	27	26	22	21	19	—	—	—
2 x 6	5.5	—	—	—	—	—	21	20	21	18	—	—	—
2 x 4	3.5	—	—	—	—	—	—	14	—	13	15	13	11
	2.5	—	—	—	—	—	—	—	—	—	—	9.8	—
	1.5	—	—	—	—	—	—	—	—	—	—	6.3	6.0

## NEW SECTION

## WAC 51-11C-61015 Section A101.5—Building materials.

**A101.5 Building materials.** Default R-values used for building materials shall be as shown in Table A101.5.

**Table A101.5**  
**Default R-values for Building Materials**

Material	Nominal Size (in.)	Actual Size (in.)	R-Value (Heat Capacity <sup>c</sup> )
Air cavity (unventilated), between metal studs at 16 inches on center <sup>a</sup>	-	-	0.79
Air cavity (unventilated), all other depths and framing materials <sup>1</sup>	-	-	0.91
Airfilm, exterior surfaces <sup>b</sup>	-	-	0.17
Airfilm, interior horizontal surfaces, heat flow up <sup>b</sup>	-	-	0.61
Airfilm, interior horizontal surfaces, heat flow down <sup>b</sup>	-	-	0.92
Airfilm, interior vertical surfaces <sup>b</sup>	-	-	0.68
Brick at R-0.12/in. (face brick, 75% solid/25% core area, 130 lbs/ft <sup>3</sup> )	4	3.5	0.32 (5.9)
Carpet and rubber pad	-	-	1.23
Concrete at R-0.0625/in., heavyweight (144 lbs/ft <sup>3</sup> )	-	2	0.13 (HC-4.8)
	-	4	0.25 (HC-9.6)
	-	6	0.38 (HC-14.4)
	-	8	0.50 (HC-19.2)
	-	10	0.63 (HC-24.0)
	-	12	0.75 (HC-28.8)
Concrete masonry units, solid grouted, lightweight (95 lbs/ft <sup>3</sup> )	6	-	0.80 (HC-11.4)
Concrete masonry units, solid grouted, normal weight (135 lbs/ft <sup>3</sup> )	6	-	0.51 (HC-13.2)
Concrete masonry units, partly grouted, lightweight (95 lbs/ft <sup>3</sup> )	6	-	1.33 (HC-6.7)
Concrete masonry units, partly grouted, normal weight (135 lbs/ft <sup>3</sup> )	6	-	0.82 (HC-9.0)
Concrete masonry units, solid grouted, lightweight (95 lbs/ft <sup>3</sup> )	8	-	1.05 (HC-15.5)
Concrete masonry units, solid grouted, normal weight (135 lbs/ft <sup>3</sup> )	8	-	0.69 (HC-17.9)
Concrete masonry units, partly grouted, lightweight (95 lbs/ft <sup>3</sup> )	8	-	1.44 (HC-9.6)
Concrete masonry units, partly grouted, normal weight (135 lbs/ft <sup>3</sup> )	8	-	0.98 (HC-12.0)
Concrete masonry units, solid grouted, lightweight (95 lbs/ft <sup>3</sup> )	10	-	1.30 (HC-19.7)
Concrete masonry units, solid grouted, normal weight (135 lbs/ft <sup>3</sup> )	10	-	0.87 (HC-22.6)
Concrete masonry units, partly grouted, lightweight (95 lbs/ft <sup>3</sup> )	10	-	1.61 (HC-11.9)
Concrete masonry units, partly grouted, normal weight (135 lbs/ft <sup>3</sup> )	10	-	1.11 (HC-14.8)
Concrete masonry units, solid grouted, lightweight (95 lbs/ft <sup>3</sup> )	12	-	1.53 (HC-23.9)
Concrete masonry units, solid grouted, normal weight (135 lbs/ft <sup>3</sup> )	12	-	1.06 (HC-27.2)
Concrete masonry units, partly grouted, lightweight (95 lbs/ft <sup>3</sup> )	12	-	1.75 (HC-14.2)
Concrete masonry units, partly grouted, normal weight (135 lbs/ft <sup>3</sup> )	12	-	1.23 (HC-17.5)
Flooring, wood subfloor	-	0.75	0.94
Gypsum board	-	0.5	0.45
	-	0.625	0.56
Metal deck	-	-	0
Roofing, built-up	-	0.375	0.33
Sheathing, vegetable fiber board, 0.78 in.	-	0.78	2.06
Soil at R-0.104/in.	-	12	1.25
Steel, mild		1	0.0031807
Stucco	-	0.75	0.08

<sup>a</sup>There is no credit for cavities that are open to outside air.

<sup>b</sup>Air films do not apply to air cavities within an assembly.

<sup>c</sup>For heat capacity for concrete and concrete masonry materials with densities other than the values listed in Table A101.5, see Tables A3.1B and A3.1C in ASHRAE/IESNA Standard 90.1.

NEW SECTION

**WAC 51-11C-61020 Section A102—Ceilings.**

NEW SECTION

**WAC 51-11C-61021 Section A102.1—General.**

**A102.1 General.** Table A102.1 lists heat loss coefficients for the opaque portion of exterior ceilings below vented attics, vaulted ceilings and roof decks in units of Btu/h • ft<sup>2</sup> • °F of ceiling.

They are derived from procedures listed in the ASHRAE Fundamentals Handbook. Ceiling U-factors are modified for the buffering effect of the attic, assuming an indoor temperature of 65°F and an outdoor temperature of 45°F.

**A102.1.1 Metal framed ceilings.** The nominal R-values in Table A103.3.6.2: Effective R-Values for Metal Framing and Cavity Only may be used for purposes of calculating metal framed ceiling section U-factors in lieu of the ASHRAE zone calculation method as provided in Chapter 27 of the ASHRAE Fundamentals Handbook.

Metal building roofs have a different construction and are addressed in Table A102.2.5.

NEW SECTION

**WAC 51-11C-61021 Table A102.1—Default U-factors for ceilings.**

**Table A102.1  
Default U-factors for Ceilings**

	Standard Frame	Advanced Frame
<b>Ceilings Below Vented Attics</b>		
<b>Flat</b>	<b>Baffled</b>	
R-19	0.049	0.047
R-30	0.036	0.032
R-38	0.031	0.026
R-49	0.027	0.020
R-60	0.025	0.017
<b>Scissors Truss</b>		
R-30 (4/12 roof pitch)	0.043	0.031
R-38 (4/12 roof pitch)	0.040	0.025
R-49 (4/12 roof pitch)	0.038	0.020
R-30 (5/12 roof pitch)	0.039	0.032
R-38 (5/12 roof pitch)	0.035	0.026
R-49 (5/12 roof pitch)	0.032	0.020
<b>Vaulted Ceilings</b>	<b>16" O.C.</b>	<b>24" O.C.</b>
<b>Vented</b>		
R-19 2x10 joist	0.049	0.048
R-30 2x12 joist	0.034	0.033
R-38 2x14 joist	0.027	0.027
<b>Unvented</b>		
R-30 2x10 joist	0.034	0.033
R-38 2x12 joist	0.029	0.027
R-21 + R-21 2x12 joist	0.026	0.025
<b>Roof Deck</b>		
<b>4 x Beams, 48" O.C.</b>		
R-12.5      2"      Rigid insulation	0.064	
R-21.9      3.5"      Rigid insulation	0.040	
R-37.5      6"      Rigid insulation	0.025	
R-50      8"      Rigid insulation	0.019	

NEW SECTION

**WAC 51-11C-61022 Section A102.2—Component description.**

**A102.2 Component description.** The four types of ceilings are characterized as follows:

**A102.2.1 Ceilings below a vented attic.** Attic insulation is assumed to be blown-in, loose-fill fiberglass with a K-value of 2.6 h • ft<sup>2</sup> • °F/Btu per inch. Full bag count for specified

R-value is assumed in all cases. Ceiling dimensions for flat ceiling calculations are 45 by 30 feet, with a gabled roof having a 4/12 pitch. The attic is assumed to vent naturally at the rate of 3 air changes per hour through soffit and ridge vents. A void fraction of 0.002 is assumed for all attics with insulation baffles. Standard-framed, un baffled attics assume a void fraction of 0.008.

Attic framing is either standard or advanced. Standard framing assumes tapering of insulation depth around the

perimeter with resultant decrease in thermal resistance. An increased R-value is assumed in the center of the ceiling due to the effect of piling leftover insulation. Advanced framing assumes full and even depth of insulation extending to the outside edge of exterior walls. Advanced framing does not change from the default value.

U-factors for flat ceilings below vented attics with standard framing may be modified with the following table:

Roof Pitch	U-Factor for Standard Framing	
	R-30	R-38
4/12	0.036	0.031
5/12	0.035	0.030
6/12	0.034	0.029
7/12	0.034	0.029
8/12	0.034	0.028
9/12	0.034	0.028
10/12	0.033	0.028
11/12	0.033	0.027
12/12	0.033	0.027

Vented scissors truss attics assume a ceiling pitch of 2/12 with a roof pitch of either 4/12 or 5/12. Unbaffled standard framed scissors truss attics are assumed to have a void fraction of 0.016.

**A102.2.2 Vaulted ceilings.** Insulation is assumed to be fiberglass batts installed in roof joist cavities. In the vented case, at least 1.5 inches between the top of the batts and the underside of the roof sheathing is left open for ventilation in each cavity. A ventilation rate of 3.0 air changes per hour is assumed. In the unvented or dense pack case, the ceiling cavity is assumed to be fully packed with insulation, leaving no space for ventilation.

**A102.2.3 Roof decks.** Rigid insulation is applied to the top of roof decking with no space left for ventilation. Roofing materials are attached directly on top of the insulation. Framing members are often left exposed on the interior side.

**A102.2.4 Metal truss framing.** Overall system tested values for the roof/ceiling  $U_o$  for metal framed truss assemblies from approved laboratories shall be used, when such data is acceptable to the building official.

Alternatively, the  $U_o$  for roof/ceiling assemblies using metal truss framing may be obtained from Tables A102.2.4(1) through A102.2.4(5).

**A102.2.5 Metal building roof.** Table A102.2.5: The base assembly is a roof where the insulation is compressed when installed beneath metal roof panels attached to the steel structure (purlins). Additional assemblies include continuous insulation, uncompressed and uninterrupted by framing.

U-factors for metal building roofs shall be taken from Table A102.2.5, provided the average purlin spacing is at least 52 inches and the R-value of the thermal spacer block is greater than or equal to the thermal spacer block R-value indicated in Table A107.2.5 for the assembly. It is not acceptable to use the U-factors in Table A102.2.6 if additional insulated sheathing is not continuous.

**A102.2.5.1 Single layer.** The rated R-value of insulation is for insulation installed perpendicular to and draped over purlins and then compressed when the metal roof panels are attached. A minimum R-3 (R-0.5) thermal spacer block between the purlins and the metal roof panels is required, unless compliance is shown by the overall assembly U-factor.

**A102.2.5.2 Double layer.** The first rated R-value of insulation is for insulation installed perpendicular to and draped over purlins. The second rated R-value of insulation is for unfaced insulation installed above the first layer and parallel to the purlins and then compressed when the metal roof panels are attached. A minimum R-3 (R-0.5) thermal spacer block between the purlins and the metal roof panels is required, unless compliance is shown by the overall assembly U-factor.

**A102.2.5.3 Continuous insulation.** For continuous insulation (e.g., insulation boards or blankets), it is assumed that the insulation is installed below the purlins and is uninterrupted by framing members. Insulation exposed to the conditioned space or semiheated space shall have a facing, and all insulation seams shall be continuously sealed to provide a continuous air barrier.

**A102.2.5.4 Liner system (Ls).** A continuous membrane is installed below the purlins and uninterrupted by framing members. Uncompressed, unfaced insulation rests on top of the membrane between the purlins. For multilayer installations, the last rated R-value of insulation is for unfaced insulation draped over purlins and then compressed when the metal roof panels are attached. A minimum R-3 (R-0.5) thermal spacer block between the purlins and the metal roof panels is required, unless compliance is shown by the overall assembly U-factor.

**A102.2.5.5 Filled cavity.** The first rated R-value of insulation is for faced insulation installed parallel to the purlins. The second rated R-value of insulation is for unfaced insulation installed above the first layer, parallel to and between the purlins and compressed when the metal roof panels are attached. The facer of the first layer of insulation is of sufficient width to be continuously sealed to the top flange of the purlins and to accommodate the full thickness of the second layer of insulation. A supporting structure retains the bottom of the first layer at the prescribed depth required for the full thickness of the second layer of insulation being installed above it. A minimum R-5 (R-0.9) thermal spacer block between the purlins and the metal roof panels is required, unless compliance is shown by the overall assembly U-factor.

**A102.2.6 Roofs with insulation entirely above deck (uninterrupted by framing).** Table A102.2.6: The base assembly is continuous insulation over a structural deck. Added insulation is continuous and uninterrupted by framing. For the insulation, the first column lists the R-value for continuous insulation with a uniform thickness; the second column lists the comparable area-weighted average R-value for continuous insulation provided that the insulation thickness is never less than R-5 (except at roof drains) and that the slope is no greater than 1/4 inch per foot.

NEW SECTION

WAC 51-11C-610221 Tables A102.2.4—Steel truss framed ceiling U<sub>o</sub> values.

**A102.2.4(1)**  
**Steel Truss<sup>a</sup> Framed Ceiling U<sub>o</sub>**

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.1075	0.0991	0.0928	0.0878	0.0839	0.0807	0.0780	0.0757	0.0737	0.0720	0.0706	0.0693	0.0681
30	0.0907	0.0823	0.0760	0.0710	0.0671	0.0638	0.0612	0.0589	0.0569	0.0552	0.0538	0.0525	0.0513
38	0.0844	0.0759	0.0696	0.0647	0.0607	0.0575	0.0548	0.0525	0.0506	0.0489	0.0474	0.0461	0.0449
49	0.0789	0.0704	0.0641	0.0592	0.0552	0.0520	0.0493	0.0470	0.0451	0.0434	0.0419	0.0406	0.0395

**Table A102.2.4(2)**  
**Steel Truss<sup>a</sup> Framed Ceiling U<sub>o</sub> with R-3 Sheathing**

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0809	0.0763	0.0728	0.0701	0.0679	0.0661	0.0647	0.0634	0.0623	0.0614	0.0606	0.0599	0.0592
30	0.0641	0.0595	0.0560	0.0533	0.0511	0.0493	0.0478	0.0466	0.0455	0.0446	0.0438	0.0431	0.0424
38	0.0577	0.0531	0.0496	0.0469	0.0447	0.0430	0.0415	0.0402	0.0392	0.0382	0.0374	0.0367	0.0361
49	0.0523	0.0476	0.0441	0.0414	0.0393	0.0375	0.0360	0.0348	0.0337	0.0328	0.0319	0.0312	0.0306

**Table A102.2.4(3)**  
**Steel Truss<sup>a</sup> Framed Ceiling U<sub>o</sub> with R-5 Sheathing**

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0732	0.0697	0.0670	0.0649	0.0633	0.0619	0.0608	0.0598	0.0590	0.0583	0.0577	0.0571	0.0567
30	0.0564	0.0529	0.0502	0.0481	0.0465	0.0451	0.0440	0.0430	0.0422	0.0415	0.0409	0.0403	0.0399
38	0.0501	0.0465	0.0438	0.0418	0.0401	0.0388	0.0376	0.0367	0.0359	0.0351	0.0345	0.0340	0.0335
49	0.0446	0.0410	0.0384	0.0363	0.0346	0.0333	0.0322	0.0312	0.0304	0.0297	0.0291	0.0285	0.0280

**Table A102.2.4(4)**  
**Steel Truss<sup>a</sup> Framed Ceiling U<sub>o</sub> with R-10 Sheathing**

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0626	0.0606	0.0590	0.0578	0.0569	0.0561	0.0555	0.0549	0.0545	0.0541	0.0537	0.0534	0.0531
30	0.0458	0.0437	0.0422	0.0410	0.0401	0.0393	0.0387	0.0381	0.0377	0.0373	0.0369	0.0366	0.0363
38	0.0394	0.0374	0.0359	0.0347	0.0337	0.0330	0.0323	0.0318	0.0313	0.0309	0.0305	0.0302	0.0299
49	0.0339	0.0319	0.0304	0.0292	0.0283	0.0275	0.0268	0.0263	0.0258	0.0254	0.0251	0.0247	0.0245

**Table A102.2.4(5)**  
**Steel Truss<sup>a</sup> Framed Ceiling U<sub>o</sub> with R-15 Sheathing**

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0561	0.0550	0.0541	0.0535	0.0530	0.0526	0.0522	0.0519	0.0517	0.0515	0.0513	0.0511	0.0509
30	0.0393	0.0382	0.0373	0.0367	0.0362	0.0358	0.0354	0.0351	0.0349	0.0347	0.0345	0.0343	0.0341
38	0.0329	0.0318	0.0310	0.0303	0.0298	0.0294	0.0291	0.0288	0.0285	0.0283	0.0281	0.0279	0.0278
49	0.0274	0.0263	0.0255	0.0249	0.0244	0.0239	0.0236	0.0233	0.0230	0.0228	0.0226	0.0225	0.0223

**Footnotes for Tables A102.2.4(1) through A102.2.4(5)**

<sup>a</sup>Assembly values based on 24 inch on center truss spacing; 11 Truss member connections penetrating insulation (4 at the eaves, 7 in the interior space); 1/2 inch drywall ceiling; all truss members are 2x4 "C" channels with a solid web.

<sup>b</sup>Ceiling sheathing installed between bottom chord and drywall.



NEW SECTION

**WAC 51-11C-610225 Tables A102.2.5—Default U-factors for metal building roofs.**

**Table A102.2.5  
Default U-factors for Metal Building Roofs**

Insulation System	Rated R-Value of Insulation	Overall U-Factor for Entire Base Roof Assembly	Overall U-Factor for Assembly of Base Roof Plus Continuous Insulation (uninterrupted by framing) Rated R-Value of Continuous Insulation					
			R-6.5	R-13	R-19.5	R-26	R-32.5	R-39
<b>Standing Seam Roofs with Thermal Spacer Blocks<sup>a, b</sup></b>								
Single Layer	None	1.280	0.137	0.073	0.049	0.037	0.030	0.025
	R-10	0.115	0.066	0.046	0.035	0.029	0.024	0.021
	R-11	0.107	0.063	0.045	0.035	0.028	0.024	0.021
	R-13	0.101	0.061	0.044	0.034	0.028	0.024	0.020
	R-16	0.096	0.059	0.043	0.033	0.027	0.023	0.020
	R-19	0.082	0.053	0.040	0.031	0.026	0.022	0.020
Double Layer	R-10 + R-10	0.088	0.056	0.041	0.032	0.027	0.023	0.020
	R-10 + R-11	0.086	0.055	0.041	0.032	0.027	0.023	0.020
	R-11 + R-11	0.085	0.055	0.040	0.032	0.026	0.023	0.020
	R-10 + R-13	0.084	0.054	0.040	0.032	0.026	0.023	0.020
	R-11 + R-13	0.082	0.053	0.040	0.032	0.026	0.022	0.020
	R-13 + R-13	0.075	0.050	0.038	0.030	0.025	0.022	0.019
	R-10 + R-19	0.074	0.050	0.038	0.030	0.025	0.022	0.019
	R-11 + R-19	0.072	0.049	0.037	0.030	0.025	0.022	0.019
	R-13 + R-19	0.068	0.047	0.036	0.029	0.025	0.021	0.019
	R-16 + R-19	0.065	0.046	0.035	0.029	0.024	0.021	0.018
Liner System	R-19 + R-11	0.035						
	R-25 + R-11	0.031						
	R-30 + R-11	0.029						
	R-25 + R-11 + R-11	0.026						
<b>Filled Cavity with Thermal Spacer Blocks<sup>c</sup></b>								
	R-10 + R-19	0.057	0.042	0.033	0.027	0.023	0.020	0.018
<b>Standing Seam Roofs without Thermal Spacer Blocks</b>								
Liner System	R-19 + R-11	0.040						
<b>Thru-Fastened Roofs without Thermal Spacer Blocks</b>								
Single Layer	R-10	0.184						
	R-11	0.182						
	R-13	0.174						
	R-16	0.157						
	R-19	0.151						
Liner System	R-19 + R-11	0.044						

(Multiple R-values are listed in order from inside to outside)

<sup>a</sup>A standing seam roof clip that provides a minimum 1.5 inch distance between the top of the purlins and the underside of the metal roof panels is required.

<sup>b</sup>A minimum R-3 thermal spacer block is required.

<sup>c</sup>A minimum R-5 thermal spacer block is required.

**above Deck  
(Uninterrupted by Framing)**

Rated R-Value of Insulation Alone: Minimum Through-out, Un-sloped	Rated R-Value of Insulation Alone: Average (R-5 minimum), Sloped (1/4 inch per foot maximum)	Overall U-Factor for Entire Assembly
R-0	Not Allowed	U-1.282
R-1	Not Allowed	U-0.562
R-2	Not Allowed	U-0.360
R-3	Not Allowed	U-0.265
R-4	Not Allowed	U-0.209
R-5	Not Allowed	U-0.173
R-6	R-7	U-0.147

NEW SECTION

**WAC 51-11C-610226 Tables A102.2.6—Assembly U-factors for roofs with insulation entirely above deck.**

**Table A102.2.6**

**Assembly U-factors for Roofs with Insulation Entirely**

Rated R-Value of Insulation Alone: Minimum Throughout, Unslotted	Rated R-Value of Insulation Alone: Average (R-5 minimum), Sloped (1/4 inch per foot maximum)	Overall U-Factor for Entire Assembly
R-7	R-8	U-0.129
R-8	R-9	U-0.114
R-9	R-10	U-0.102
R-10	R-12	U-0.093
R-11	R-13	U-0.085
R-12	R-15	U-0.078
R-13	R-16	U-0.073
R-14	R-18	U-0.068
R-15	R-20	U-0.063
R-16	R-22	U-0.060
R-17	R-23	U-0.056
R-18	R-25	U-0.053
R-19	R-27	U-0.051
R-20	R-29	U-0.048
R-21	R-31	U-0.046
R-22	R-33	U-0.044
R-23	R-35	U-0.042
R-24	R-37	U-0.040
R-25	R-39	U-0.039
R-26	R-41	U-0.037
R-27	R-43	U-0.036
R-28	R-46	U-0.035
R-29	R-48	U-0.034
R-30	R-50	U-0.032
R-35	R-61	U-0.028
R-40	R-73	U-0.025
R-45	R-86	U-0.022
R-50	R-99	U-0.020
R-55	R-112	U-0.018
R-60	R-126	U-0.016

**NEW SECTION**

**WAC 51-11C-61030 Section A103—Above grade walls.**

**NEW SECTION**

**WAC 51-11C-61031 Section A103.1—General.**

**A103.1 General.** Table A103.1(1), A103.1(2) and A103.1(3) list heat loss coefficients for the opaque portion of above-grade wood stud frame walls, metal stud frame walls and concrete masonry walls (Btu/h • ft<sup>2</sup> • °F) respectively. They are derived from procedures listed in the ASHRAE Fundamentals Handbook. For intermediate floor slabs which penetrate the insulated wall, use the concrete wall U-factors in Table A103.1(2).

Insulation is assumed to uniformly fill the entire cavity and to be installed as per manufacturer's directions. All walls are assumed to be finished on the inside with 1/2 inch gypsum wallboard, and on the outside with either beveled wood siding over 1/2 inch plywood sheathing or with 5/8 inch T1-11 siding. Insulated sheathing (either interior or exterior) is assumed to cover the entire opaque wall surface, except

where modified in accordance with footnote h to Table 402.1.1.

Metal building walls have a different construction and are addressed in Table A103.3.6.3.

**NEW SECTION**

**WAC 51-11C-61032 Section A103.2—Framing description.**

**A103.2 Framing description.** For wood stud frame walls, three framing types are considered and defined as follows:

**A103.2.1 Standard.** Studs framed on 16 inch centers with double top plate and single bottom plate. Corners use three studs and each opening is framed using two studs. Headers consist of double 2x or single 4x material with an air space left between the header and the exterior sheathing. Interior partition wall/exterior wall intersections use two studs in the exterior wall.

**Standard framing weighting factors:**

Studs and plates	0.19
Insulated cavity	0.77
Headers	0.04

**A103.2.2 Intermediate.** Studs framed on 16 inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and each opening is framed by two studs. Headers consist of double 2x material with R-10 insulation. Interior partition wall/exterior wall intersections are fully insulated in the exterior wall.

**Intermediate framing weighting factors:**

Studs and plates	0.18
Insulated cavity	0.78
Headers	0.04

**A103.2.3 Advanced.** Studs framed on 24 inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and one stud is used to support each header. Headers consist of double 2x material with R-10 insulation. Interior partition wall/exterior wall intersections are fully insulated in the exterior wall.

**Advanced framing weighting factors:**

Studs and plates	0.13
Insulated cavity	0.83
Headers	0.04

**NEW SECTION**

**WAC 51-11C-61033 Section A103.3—Component description.**

**A103.3 Component description.** Default coefficients for the following types of walls are listed: Single-stud walls, strap walls, double-stud walls, log walls, stress-skin panels, metal stud walls, and metal building walls.

NEW SECTION

**WAC 51-11C-610331 Section A103.3.1—Single stud wall.**

**A103.3.1 Single-stud wall.** Tables A105.3.1(1) through A105.3.1(8): Assumes either 2 x 4 or 2 x 6 studs framed on 16 or 24 inch centers. Headers are solid for 2 x 4 walls and double 2x for 2 x 6 walls, with either dead-air or rigid-board insulation in the remaining space.

**TABLE A103.3.1(1)**

**2 x 4 Single Wood Stud: R-11 Batt**

	R-value of Foam Board	Siding Material/Framing Type			
		Lapped Wood		T1-11	
		STD	ADV	STD	ADV
<b>NOTE:</b>	0	0.088	0.084	0.094	0.090
Nominal Batt R-value:	1	0.080	0.077	0.085	0.082
R-11 at 3.5 inch thickness	2	0.074	0.071	0.078	0.075
Installed Batt R-value:	3	0.069	0.066	0.072	0.070
R-11 in 3.5 inch cavity	4	0.064	0.062	0.067	0.065
	5	0.060	0.058	0.063	0.061
	6	0.056	0.055	0.059	0.057
	7	0.053	0.052	0.055	0.054
	8	0.051	0.049	0.052	0.051
	9	0.048	0.047	0.050	0.049
	10	0.046	0.045	0.047	0.046
	11	0.044	0.043	0.045	0.044
	12	0.042	0.041	0.043	0.042

**TABLE A103.3.1(2)**

**2 x 4 Single Wood Stud: R-13 Batt**

	R-value of Foam Board	Siding Material/Framing Type			
		Lapped Wood		T1-11	
		STD	ADV	STD	ADV
<b>NOTE:</b>	0	0.082	0.078	0.088	0.083
Nominal Batt R-value:	1	0.075	0.072	0.080	0.076
R-13 at 3.63 inch thickness	2	0.069	0.066	0.073	0.070
Installed Batt R-value:	3	0.065	0.062	0.068	0.065
R-12.7 in 3.5 inch cavity	4	0.060	0.058	0.063	0.061
	5	0.057	0.055	0.059	0.057
	6	0.053	0.052	0.056	0.054
	7	0.051	0.049	0.052	0.051
	8	0.048	0.047	0.050	0.048
	9	0.046	0.045	0.047	0.046
	10	0.044	0.043	0.045	0.044
	11	0.042	0.041	0.043	0.042
	12	0.040	0.039	0.041	0.040

TABLE A103.3.1(3)

2 x 4 Single Wood Stud: R-15 Batt

	R-value of Foam Board	Siding Material/Framing Type			
		Lapped Wood		T1-11	
		STD	ADV	STD	ADV
NOTE:	0	0.076	0.071	0.081	0.075
Nominal Batt R-value:	1	0.069	0.065	0.073	0.069
R-15 at 3.5 inch thickness	2	0.064	0.061	0.068	0.069
	3	0.060	0.057	0.063	0.059
Installed Batt R-value:	4	0.056	0.053	0.059	0.056
R-15 in 3.5 inch cavity	5	0.053	0.051	0.055	0.052
	6	0.050	0.048	0.052	0.050
	7	0.047	0.046	0.049	0.047
	8	0.045	0.044	0.047	0.045
	9	0.043	0.042	0.044	0.043
	10	0.041	0.040	0.042	0.041
	11	0.039	0.038	0.041	0.039
	12	0.038	0.037	0.039	0.038

TABLE A103.3.1(4)

2 x 6 Single Wood Stud: R-19 Batt

	R-value of FoamBoard	Siding Material/Framing Type					
		Lapped Wood			T1-11		
		STD	INT	ADV	STD	INT	ADV
NOTE:	0	0.062	0.058	0.055	0.065	0.061	0.058
Nominal Batt R-value:	1	0.058	0.055	0.052	0.060	0.057	0.055
R-19 at 6 inch thickness	2	0.054	0.052	0.050	0.056	0.054	0.051
	3	0.051	0.049	0.047	0.053	0.051	0.049
Installed Batt R-value:	4	0.048	0.046	0.045	0.050	0.048	0.046
R-18 in 5.5 inch cavity	5	0.046	0.044	0.043	0.048	0.046	0.044
	6	0.044	0.042	0.041	0.045	0.044	0.042
	7	0.042	0.040	0.039	0.043	0.042	0.040
	8	0.040	0.039	0.038	0.041	0.040	0.039
	9	0.038	0.037	0.035	0.039	0.038	0.037
	10	0.037	0.036	0.035	0.038	0.037	0.036
	11	0.036	0.035	0.034	0.036	0.035	0.035
	12	0.034	0.033	0.033	0.035	0.034	0.033

TABLE A103.3.1(5)

**2 x 6 Single Wood Stud: R-21 Batt**

	R-value of FoamBoard	Siding Material/Framing Type					
		Lapped Wood			T1-11		
		STD	INT	ADV	STD	INT	ADV
<b>NOTE:</b>	0	0.057	0.054	0.051	0.060	0.056	0.053
Nominal Batt R-value:	1	0.054	0.051	0.048	0.056	0.053	0.050
R-21 at 5.5 inch thickness	2	0.050	0.048	0.045	0.052	0.050	0.047
Installed Batt R-value:	3	0.048	0.045	0.043	0.049	0.047	0.045
R-21 in 5.5 inch cavity	4	0.045	0.043	0.041	0.047	0.045	0.043
	5	0.043	0.041	0.040	0.044	0.042	0.041
	6	0.041	0.039	0.038	0.042	0.041	0.039
	7	0.039	0.038	0.036	0.040	0.039	0.037
	8	0.038	0.036	0.035	0.039	0.037	0.036
	9	0.036	0.035	0.034	0.037	0.036	0.035
	10	0.035	0.034	0.033	0.036	0.035	0.033
	11	0.033	0.033	0.032	0.034	0.033	0.032
	12	0.032	0.031	0.031	0.033	0.032	0.031

TABLE A103.3.1(6)

**2 x 6 Single Wood Stud: R-22 Batt**

	R-value of Foam Board	Siding Material/Framing Type					
		Lapped Wood			T1-11		
		STD	INT	ADV	STD	INT	ADV
<b>NOTE:</b>	0	0.059	0.055	0.052	0.062	0.058	0.054
Nominal Batt R-value:	1	0.055	0.052	0.049	0.057	0.054	0.051
R-22 at 6.75 inch thickness	2	0.052	0.049	0.047	0.054	0.051	0.048
Installed Batt R-value:	3	0.049	0.046	0.044	0.050	0.048	0.046
R-20 in 5.5 inch cavity	4	0.046	0.044	0.042	0.048	0.046	0.044
	5	0.044	0.042	0.041	0.045	0.043	0.042
	6	0.042	0.040	0.039	0.043	0.042	0.040
	7	0.040	0.039	0.037	0.041	0.040	0.038
	8	0.038	0.037	0.036	0.039	0.038	0.037
	9	0.037	0.036	0.035	0.038	0.037	0.035
	10	0.035	0.034	0.033	0.036	0.035	0.034
	11	0.034	0.033	0.032	0.035	0.034	0.033
	12	0.033	0.032	0.031	0.034	0.033	0.032

TABLE A103.3.1(7)

**2 x 6 Single Wood Stud: Two R-11 Batts**

	R-value of Foam Board	Siding Material/Framing Type					
		Lapped Wood			T1-11		
		STD	INT	ADV	STD	INT	ADV
NOTE:	0	0.060	0.057	0.054	0.063	0.059	0.056
Nominal Batt R-value:	1	0.056	0.053	0.051	0.059	0.056	0.053
R-22 at 7 inch thickness	2	0.053	0.050	0.048	0.055	0.052	0.050
Installed Batt R-value:	3	0.050	0.048	0.046	0.052	0.049	0.047
R-18.9 in 5.5 inch cavity	4	0.047	0.045	0.044	0.049	0.047	0.045
	5	0.045	0.043	0.042	0.046	0.045	0.043
	6	0.043	0.041	0.040	0.044	0.043	0.041
	7	0.041	0.040	0.038	0.042	0.041	0.039
	8	0.039	0.038	0.037	0.040	0.039	0.038
	9	0.038	0.037	0.036	0.039	0.038	0.036
	10	0.036	0.035	0.034	0.037	0.036	0.035
	11	0.035	0.034	0.033	0.036	0.035	0.034
	12	0.034	0.033	0.032	0.034	0.034	0.033

TABLE A103.3.1(8)

**2 x 8 Single Stud: R-25 Batt**

	R-value of Foam Board	Siding Material/Framing Type					
		Lapped Wood			T1-11		
		STD	INT	ADV	STD	INT	ADV
NOTE:	0	0.051	0.047	0.045	0.053	0.049	0.046
Nominal Batt R-value:	1	0.048	0.045	0.043	0.049	0.046	0.044
R-25 at 8 inch thickness	2	0.045	0.043	0.041	0.047	0.044	0.042
Installed Batt R-value:	3	0.043	0.041	0.039	0.044	0.042	0.040
R-23.6 in 7.25 inch cavity	4	0.041	0.039	0.037	0.042	0.040	0.038
	5	0.039	0.037	0.036	0.040	0.038	0.037
	6	0.037	0.036	0.035	0.038	0.037	0.036
	7	0.036	0.035	0.033	0.037	0.035	0.034
	8	0.035	0.033	0.032	0.035	0.034	0.033
	9	0.033	0.032	0.031	0.034	0.033	0.032
	10	0.032	0.031	0.030	0.033	0.032	0.031
	11	0.031	0.030	0.029	0.032	0.031	0.030
	12	0.030	0.029	0.028	0.031	0.030	0.029

NEW SECTION

**WAC 51-11C-610332 Section A103.3.2—Strap wall.**

**A103.3.2 Strap wall.** Table A103.3.2: Assumes 2 x 6 studs framed on 16 or 24 inch centers. 2 x 3 or 2 x 4 strapping is run horizontally along the interior surface of the wall to provide additional space for insulation.

**Table A103.3.2  
2 x 6: Strap Wall**

	Siding Material/Frame Type			
	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
R-19 + R-11 Batts	0.036	0.035	0.038	0.036
R-19 + R-8 Batts	0.041	0.039	0.042	0.040

NEW SECTION

**WAC 51-11C-610333 Section A103.3.3—Double stud wall.**

**A103.3.3 Double stud wall.** Tables A103.3.3(1) and A103.3.3(2): Assumes an exterior structural wall and a separate interior, nonstructural wall. Insulation is placed in both wall cavities and in the space between the two walls. Stud spacing is assumed to be on 24 inch centers for both walls.

**Table A103.3.3(1)  
2 x 6 + 2 x 4: Double Wood Stud**

Batt Configuration			Siding Material/Frame Type			
			Lapped Wood		T1-11	
Exterior	Middle	Interior	STD	ADV	STD	ADV
R-19	————	R-11	0.040	0.037	0.041	0.038
R-19	————	R-19	0.034	0.031	0.035	0.032
R-19	R-8	R-11	0.029	0.028	0.031	0.029
R-19	R-11	R-11	0.027	0.026	0.028	0.027
R-19	R-11	R-19	0.024	0.023	0.025	0.023
R-19	R-19	R-19	0.021	0.020	0.021	0.020

**Table A103.3.3(2)  
2 x 4 + 2 x 4: Double Wood Stud**

Batt Configuration			Siding Material/Frame Type			
			Lapped Wood		T1-11	
Exterior	Middle	Interior	STD	ADV	STD	ADV
R-11	————	R-11	0.050	0.046	0.052	0.048
R-19	————	R-11	0.039	0.037	0.043	0.039
R-11	R-8	R-11	0.037	0.035	0.036	0.036
R-11	R-11	R-11	0.032	0.031	0.033	0.032
R-13	R-13	R-13	0.029	0.028	0.029	0.028
R-11	R-19	R-11	0.026	0.026	0.027	0.026

NEW SECTION

**WAC 51-11C-610334 Section A103.3.4—Log wall.**

**A103.3.4 Log wall.** See Table A103.3.4.

**Table A103.3.4  
Log Walls**

	Average Log Diameter, Inches	U-factor
<b>NOTE:</b> R-value of wood:	6	0.148
R-1.25 per inch thickness	8	0.111
	10	0.089
Average wall thickness	12	0.074
90% average log diameter	14	0.063
	16	0.056

NEW SECTION

**WAC 51-11C-610335 Section A103.3.5—Stress skin panel.**

**A103.3.5 Stress-skin panel.** See Table A103.3.5.

**Table A103.3.5  
Stress Skin Panel**

	Panel Thickness, Inches	U-factor
<b>NOTE:</b> R-value of expanded polystyrene: R-3.85 per inch	3 1/2	0.071
	5 1/2	0.048
	7 1/4	0.037
	9 1/4	0.030
	11 1/4	0.025

Framing: 6%

Spline: 8%

No thermal bridging between interior and exterior splines

NEW SECTION

**WAC 51-11C-610336 Section A103.3.6—Metal stud walls.**

**A103.3.6 Metal stud walls.** The nominal R-values in Tables A103.3.6.1 through A103.3.6.3 may be used for purposes of calculating metal stud wall section U-factors in lieu of the ASHRAE zone calculation method as provided in Chapter 27 of the ASHRAE Fundamentals Handbook.

**A103.3.6.1 Metal stud wall, overall assembly U-factors.** Table A103.3.6.1(1) and A103.6.1(2): Assumes metal studs spaced on 16 or 24 inch centers with insulation installed to fill wall cavities. Continuous rigid board insulation is applied without creating uninsulated voids in the wall assembly.

**Table A103.3.6.1(1)  
Overall Assembly U-factors for Metal Stud Walls with Continuous Insulation**

Metal Framing	R-Value of Continuous Foam Board Insulation	Cavity Insulation					
		R-0	R-11	R-13	R-15	R-19	R-21
16" o.c.	R-0 (none)	0.352	0.132	0.124	0.118	0.109	0.106
	R-1	0.260	0.117	0.111	0.106	0.099	0.096
	R-2	0.207	0.105	0.100	0.096	0.090	0.087
	R-3	0.171	0.095	0.091	0.087	0.082	0.080
	R-4	0.146	0.087	0.083	0.080	0.076	0.074
	R-5	0.128	0.080	0.077	0.074	0.071	0.069
	R-6	0.113	0.074	0.071	0.069	0.066	0.065
	R-7	0.102	0.069	0.066	0.065	0.062	0.061
	R-8	0.092	0.064	0.062	0.061	0.058	0.057
	R-9	0.084	0.060	0.059	0.057	0.055	0.054
	R-10	0.078	0.057	0.055	0.054	0.052	0.051
	R-11	0.072	0.054	0.052	0.051	0.050	0.049
	R-12	0.067	0.051	0.050	0.049	0.047	0.047
	R-13	0.063	0.049	0.048	0.047	0.045	0.045
	R-14	0.059	0.046	0.045	0.045	0.043	0.043
R-15	0.056	0.044	0.043	0.043	0.041	0.041	
R-20	0.044	0.036	0.036	0.035	0.034	0.034	
24" o.c	R-0 (none)	0.338	0.116	0.108	0.102	0.094	0.090
	R-1	0.253	0.104	0.098	0.092	0.086	0.083
	R-2	0.202	0.094	0.089	0.084	0.079	0.077
	R-3	0.168	0.086	0.082	0.078	0.073	0.071
	R-4	0.144	0.079	0.075	0.072	0.068	0.066
	R-5	0.126	0.073	0.070	0.067	0.064	0.062
	R-6	0.112	0.068	0.066	0.063	0.060	0.059
	R-7	0.100	0.064	0.062	0.059	0.057	0.055
	R-8	0.091	0.060	0.058	0.056	0.054	0.052
	R-9	0.084	0.057	0.055	0.053	0.051	0.050
	R-10	0.077	0.054	0.052	0.050	0.048	0.048
	R-11	0.072	0.051	0.049	0.048	0.046	0.045
	R-12	0.067	0.048	0.047	0.046	0.044	0.043
	R-13	0.063	0.046	0.045	0.044	0.042	0.042
	R-14	0.059	0.044	0.043	0.042	0.041	0.040



Metal Framing	R-Value of Continuous Foam Board Insulation	Cavity Insulation					
		R-0	R-11	R-13	R-15	R-19	R-21
	R-15	0.056	0.042	0.041	0.040	0.039	0.038
	R-20	0.044	0.035	0.034	0.034	0.033	0.032

Continuous foam board insulation: Continuous insulation assumes no thermal bridging of insulation by framing or z-furring through applied foam board. Zone calculation method as provided in the ASHRAE Fundamentals Handbook must be used for thermally bridged foam board insulation. Values for attachment of insulation with z-furring are given in Table A103.3.6.1(2).

**Table A105.3.6.1(2)**  
**Overall Assembly U-factors for Metal Stud Walls with Insulation Supported by Z-furring**

Metal Framing	R-Value of Continuous Foam Board Insulation	Z-furring Attachment	Cavity Insulation					
			R-0	R-11	R-13	R-15	R-19	R-21
16" o.c.	R-0 (none)	Horizontal	0.352	0.132	0.124	0.118	0.109	0.106
	R-5	Horizontal	0.155	0.089	0.086	0.083	0.078	0.077
	R-7.5	Horizontal	0.128	0.080	0.077	0.074	0.071	0.069
	R-10	Horizontal	0.110	0.072	0.070	0.068	0.065	0.064
	R-12.5	Horizontal	0.099	0.068	0.065	0.064	0.061	0.060
	R-15	Horizontal	0.091	0.064	0.062	0.060	0.058	0.057
	R-17.5	Horizontal	0.084	0.060	0.058	0.057	0.055	0.054
	R-20	Horizontal	0.078	0.057	0.056	0.054	0.052	0.052
	R-22.5	Horizontal	0.074	0.055	0.054	0.052	0.051	0.050
	R-25	Horizontal	0.071	0.053	0.052	0.051	0.049	0.048
	R-0 (none)	Vertical	0.352	0.132	0.124	0.118	0.109	0.106
	R-5	Vertical	0.165	0.093	0.089	0.086	0.081	0.079
	R-7.5	Vertical	0.142	0.085	0.081	0.079	0.075	0.073
	R-10	Vertical	0.126	0.079	0.076	0.074	0.070	0.069
	R-12.5	Vertical	0.115	0.074	0.072	0.070	0.066	0.065
	R-15	Vertical	0.107	0.071	0.069	0.067	0.064	0.063
	R-17.5	Vertical	0.100	0.068	0.065	0.064	0.061	0.060
	R-20	Vertical	0.094	0.065	0.063	0.061	0.059	0.058
	R-22.5	Vertical	0.090	0.063	0.061	0.060	0.057	0.056
	R-25	Vertical	0.086	0.061	0.059	0.058	0.056	0.055
24" o.c.	R-0 (none)	Horizontal	0.338	0.116	0.108	0.102	0.094	0.090
	R-5	Horizontal	0.152	0.082	0.078	0.074	0.070	0.068
	R-7.5	Horizontal	0.126	0.074	0.070	0.068	0.064	0.062
	R-10	Horizontal	0.109	0.067	0.065	0.062	0.059	0.058
	R-12.5	Horizontal	0.098	0.063	0.061	0.059	0.056	0.055
	R-15	Horizontal	0.090	0.060	0.058	0.056	0.053	0.052
	R-17.5	Horizontal	0.083	0.057	0.055	0.053	0.051	0.050
	R-20	Horizontal	0.078	0.054	0.052	0.051	0.049	0.048
	R-22.5	Horizontal	0.074	0.052	0.050	0.049	0.047	0.046
	R-25	Horizontal	0.070	0.050	0.049	0.047	0.046	0.045
	R-0 (none)	Vertical	0.338	0.116	0.108	0.102	0.094	0.090
	R-5	Vertical	0.162	0.084	0.080	0.077	0.072	0.070

Metal Framing	R-Value of Continuous Foam Board Insulation	Z-furring Attachment	Cavity Insulation					
			R-0	R-11	R-13	R-15	R-19	R-21
	R-7.5	Vertical	0.140	0.078	0.074	0.071	0.067	0.065
	R-10	Vertical	0.124	0.073	0.070	0.067	0.063	0.062
	R-12.5	Vertical	0.113	0.069	0.066	0.064	0.061	0.059
	R-15	Vertical	0.106	0.066	0.063	0.061	0.058	0.057
	R-17.5	Vertical	0.098	0.063	0.061	0.059	0.056	0.055
	R-20	Vertical	0.093	0.061	0.059	0.057	0.054	0.053
	R-22.5	Vertical	0.089	0.059	0.057	0.055	0.053	0.051
	R-25	Vertical	0.085	0.057	0.055	0.054	0.051	0.050

Values may in Table A105.3.6.1(2) may not be interpolated between. The value of the foam board insulation must meet or exceed the value listed in the table in order to use the value shown.

**A103.3.6.2 Metal stud wall, effective R-values for metal framing and cavity only.** Table A103.3.6.2: These values may be used for the metal-framing/cavity layers in walls with metal studs spaced on 16- or 24-inch centers with insulation installed to fill wall cavities in lieu of using the zone method provided in Chapter 25 of the ASHRAE Fundamentals Handbook.

**Table A103.3.6.2**  
**Effective R-values for Metal Framing and Cavity Only**

	Cavity		Insulation		
	Nominal Depth, Inches	Actual Depth, Inches	Nominal R-Value	Effective R-Value	
				16" O.C.	24" O.C.
<i>Air Cavity</i>	any	any	R-0.91 (air)	0.79	0.91
<b>Wall</b>	4	3-1/2	R-11	5.5	6.6
	4	3-1/2	R-13	6.0	7.2
	4	3-1/2	R-15	6.4	7.8
	6	5-1/2	R-19	7.1	8.6
	6	5-1/2	R-21	7.4	9.0
	8	7-1/4	R-25	7.8	9.6
<b>Roof</b>	Insulation is uncompressed		R-11	5.5	6.1
			R-19	7.0	9.1
			R-30	9.3	11.4

**A103.3.6.3 Metal building wall.** Table A103.3.6.3: A wall whose structure consists of metal spanning panels supported by steel structural members (does not include spandrel glass or metal panels in curtain wall systems). The first nominal R-value is for insulation compressed between metal wall panels and the steel structure. For double-layer installations, the second rated R-value of insulation is for insulation installed from the inside, covering the girts. For continuous insulation (e.g., insulation boards) it is assumed that the insulation boards are installed on the inside of the girts and uninterrupted by the framing members. Insulation exposed to the conditioned space or semi-heated space shall have a facing, and all insulation seams shall be continuously sealed to provide a continuous air barrier.

**Table A103.3.6.3  
Default Metal Building Wall U-factors**

Insulation System	Rated R-Value of Insulation	Overall U-Factor for Entire Base Wall Assembly	Overall U-Factor for Assembly of Base Wall Plus Continuous Insulation (Uninterrupted by Framing)					
			R-6.5	R-13	R-19.5	R-26	R-32.5	R-39
<b>Single Layer of Mineral Fiber</b>								
	None	1.180	0.136	0.072	0.049	0.037	0.030	0.025
	R-10	0.186	0.084	0.054	0.040	0.032	0.026	0.023
	R-11	0.185	0.084	0.054	0.040	0.032	0.026	0.023
	R-13	0.162	0.079	0.052	0.039	0.031	0.026	0.022
	R-16	0.155	0.077	0.051	0.039	0.031	0.026	0.022
	R-19	0.147	0.075	0.050	0.038	0.030	0.025	0.022

**NEW SECTION**

**WAC 51-11C-610337 Section A103.3.7—Concrete and masonry walls.**

**A103.3.7 Concrete and masonry walls.**

**A103.3.7.1 Concrete masonry walls.** The nominal R-values in Table A103.3.7.1 may be used for purposes of calculating concrete masonry wall section U-factors in lieu of the ASHRAE isothermal planes calculation method as provided in Chapter 27 of the ASHRAE Fundamentals Handbook.

**Table A103.3.7.1(1)  
Default U-factors for Concrete and Masonry Walls**

**8" Concrete Masonry**

Wall Description	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Perlite	Vermiculite	
Exposed Block, Both Sides	0.40	0.23	0.24	0.43
R-5 Interior Insulation, Wood Furring	0.14	0.11	0.12	0.15
R-6 Interior Insulation, Wood Furring	0.14	0.11	0.11	0.14
R-10.5 Interior Insulation, Wood Furring	0.11	0.09	0.09	0.11
R-8 Interior Insulation, Metal Clips	0.11	0.09	0.09	0.11
R-6 Exterior Insulation	0.12	0.10	0.10	0.12
R-10 Exterior Insulation	0.08	0.07	0.07	0.08
R-9.5 Rigid Polystyrene Integral Insulation, Two Webbed Block	0.11	0.09	0.09	0.12

**12" Concrete Masonry**

Wall Description	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Perlite	Vermiculite	
Exposed Block, Both Sides	0.35	0.17	0.18	0.33
R-5 Interior Insulation, Wood Furring	0.14	0.10	0.10	0.13
R-6 Interior Insulation, Wood Furring	0.13	0.09	0.10	0.13
R-10.5 Interior Insulation, Wood Furring	0.11	0.08	0.08	0.10
R-8 Interior Insulation, Metal Clips	0.10	0.08	0.08	0.09
R-6 Exterior Insulation	0.11	0.09	0.09	0.11
R-10 Exterior Insulation	0.08	0.06	0.06	0.08

Wall Description	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Perlite	Vermiculite	
R-9.5 Rigid Polystyrene Integral Insulation, Two Webbed Block	0.11	0.08	0.09	0.12

**8" Clay Brick**

Wall Description	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Perlite	Vermiculite	
Exposed Block, Both Sides	0.50	0.31	0.32	0.56
R-5 Interior Insulation, Wood Furring	0.15	0.13	0.13	0.16
R-6 Interior Insulation, Wood Furring	0.15	0.12	0.12	0.15
R-10.5 Interior Insulation, Wood Furring	0.12	0.10	0.10	0.12
R-8 Interior Insulation, Metal Clips	0.11	0.10	0.10	0.11
R-6 Exterior Insulation	0.12	0.11	0.11	0.13
R-10 Exterior Insulation	0.08	0.08	0.08	0.09

**6" Concrete Poured or Precast**

Wall Description	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Perlite	Vermiculite	
Exposed Concrete, Both Sides	NA	NA	NA	0.61
R-5 Interior Insulation, Wood Furring	NA	NA	NA	0.16
R-6 Interior Insulation, Wood Furring	NA	NA	NA	0.15
R-10.5 Interior Insulation, Wood Furring	NA	NA	NA	0.12
R-8 Interior Insulation, Metal Clips	NA	NA	NA	0.12
R-6 Exterior Insulation	NA	NA	NA	0.13
R-10 Exterior Insulation	NA	NA	NA	0.09

1. Grouted cores at 40" x 48" on center vertically and horizontally in partial grouted walls.
2. Interior insulation values include 1/2" gypsum board on the inner surface.
3. Furring and stud spacing is 16" on center. Insulation is assumed to fill furring space and is not compressed.
4. Intermediate values may be interpolated using this table. Values not contained in this table may be computed using the procedures listed in the ASHRAE Fundamentals Handbook.

**Table A103.3.7.1(2)  
Default U-Factors for Concrete and Masonry Walls**

Framing Type and Depth	Rated R-value of Insulation Alone	Assembly U-factors for Solid Concrete Walls	Assembly U-factors for Concrete Block Walls: Solid Grouted	Assembly U-factors for Concrete Block Walls: Partially Grouted (Cores Uninsulated Except Where Specified)
<b>Base Wall only</b>				
No Framing	R-0	U-0.740	U-0.580	U-0.480
	UngROUTED Cores Filled with Loose-Fill Insulation	N.A.	N.A.	U-0.350

<b>Framing Type and Depth</b>	<b>Rated R-value of Insulation Alone</b>	<b>Assembly U-factors for Solid Concrete Walls</b>	<b>Assembly U-factors for Concrete Block Walls: Solid Grouted</b>	<b>Assembly U-factors for Concrete Block Walls: Partially Grouted (Cores Uninsulated Except Where Specified)</b>
Continuous Wood Framing				
0.75 in.	R-3.0	U-0.247	U-0.226	U-0.210
1.5 in.	R-6.0	U-0.160	U-0.151	U-0.143
2.0 in.	R-10.0	U-0.116	U-0.111	U-0.107
3.5 in.	R-11.0	U-0.094	U-0.091	U-0.088
3.5 in.	R-13.0	U-0.085	U-0.083	U-0.080
3.5 in.	R-15.0	U-0.079	U-0.077	U-0.075
5.5 in.	R-19.0	U-0.060	U-0.059	U-0.058
5.5 in.	R-21.0	U-0.057	U-0.055	U-0.054
Continuous Metal Framing at 24 in. on center horizontally				
1.0 in.	R-0.0	U-0.414	U-0.359	U-0.318
1.0 in.	R-3.8	U-0.325	U-0.290	U-0.263
1.0 in.	R-5.0	U-0.314	U-0.281	U-0.255
1.0 in.	R-6.5	U-0.305	U-0.274	U-0.249
1.5 in.	R-11.0	U-0.267	U-0.243	U-0.223
2.0 in.	R-7.6	U-0.230	U-0.212	U-0.197
2.0 in.	R-10.0	U-0.219	U-0.202	U-0.188
2.0 in.	R-13.0	U-0.210	U-0.195	U-0.182
3.0 in.	R-11.4	U-0.178	U-0.167	U-0.157
3.0 in.	R-15.0	U-0.168	U-0.158	U-0.149
3.0 in.	R-19.0	U-0.161	U-0.152	U-0.144
3.5 in.	R-11.0	U-0.168	U-0.158	U-0.149
3.5 in.	R-13.0	U-0.161	U-0.152	U-0.144
3.5 in.	R-15.0	U-0.155	U-0.147	U-0.140
4.5 in.	R-17.1	U-0.133	U-0.126	U-0.121
4.5 in.	R-22.5	U-0.124	U-0.119	U-0.114
4.5 in.	R-25.2	U-0.122	U-0.116	U-0.112
5.0 in.	R-19.0	U-0.122	U-0.117	U-0.112
5.0 in.	R-25.0	U-0.115	U-0.110	U-0.106
5.0 in.	R-28.0	U-0.112	U-0.107	U-0.103
5.0 in.	R-32.0	U-0.109	U-0.105	U-0.101
5.5 in.	R-19.0	U-0.118	U-0.113	U-0.109
5.5 in.	R-20.9	U-0.114	U-0.109	U-0.105
5.5 in.	R-21.0	U-0.113	U-0.109	U-0.105
5.5 in.	R-27.5	U-0.106	U-0.102	U-0.099
5.5 in.	R-30.8	U-0.104	U-0.100	U-0.096
6.0 in.	R-22.8	U-0.106	U-0.102	U-0.098
6.0 in.	R-30.0	U-0.099	U-0.095	U-0.092
6.0 in.	R-33.6	U-0.096	U-0.093	U-0.090
6.5 in.	R-24.7	U-0.099	U-0.096	U-0.092
7.0 in.	R-26.6	U-0.093	U-0.090	U-0.087
7.5 in.	R-28.5	U-0.088	U-0.085	U-0.083
8.0 in.	R-30.4	U-0.083	U-0.081	U-0.079

Framing Type and Depth	Rated R-value of Insulation Alone	Assembly U-factors for Solid Concrete Walls	Assembly U-factors for Concrete Block Walls: Solid Grouted	Assembly U-factors for Concrete Block Walls: Partially Grouted (Cores Uninsulated Except Where Specified)
1 in. Metal Clips at 24 in. on center horizontally and 16 in. vertically (also, where allowed by Section 1332, for assemblies with a ratio of metal penetration area/mass wall area of < 0.0004 or < 0.04% of the mass wall area) <sup>5</sup>				
1.0 in.	R-3.8	U-0.210	U-0.195	U-0.182
1.0 in.	R-5.0	U-0.184	U-0.172	U-0.162
1.0 in.	R-5.6	U-0.174	U-0.163	U-0.154
1.5 in.	R-5.7	U-0.160	U-0.151	U-0.143
1.5 in.	R-7.5	U-0.138	U-0.131	U-0.125
1.5 in.	R-8.4	U-0.129	U-0.123	U-0.118
2.0 in.	R-7.6	U-0.129	U-0.123	U-0.118
2.0 in.	R-10.0	U-0.110	U-0.106	U-0.102
2.0 in.	R-11.2	U-0.103	U-0.099	U-0.096
2.5 in.	R-9.5	U-0.109	U-0.104	U-0.101
2.5 in.	R-12.5	U-0.092	U-0.089	U-0.086
2.5 in.	R-14.0	U-0.086	U-0.083	U-0.080
3.0 in.	R-11.4	U-0.094	U-0.090	U-0.088
3.0 in.	R-15.0	U-0.078	U-0.076	U-0.074
3.0 in.	R-16.8	U-0.073	U-0.071	U-0.069
3.5 in.	R-13.3	U-0.082	U-0.080	U-0.077
3.5 in.	R-17.5	U-0.069	U-0.067	U-0.065
3.5 in.	R-19.6	U-0.064	U-0.062	U-0.061
4.0 in.	R-15.2	U-0.073	U-0.071	U-0.070
4.0 in.	R-20.0	U-0.061	U-0.060	U-0.058
4.0 in.	R-22.4	U-0.057	U-0.056	U-0.054
5.0 in.	R-28.0	U-0.046	U-0.046	U-0.045
6.0 in.	R-33.6	U-0.039	U-0.039	U-0.038
7.0 in.	R-39.2	U-0.034	U-0.034	U-0.033
8.0 in.	R-44.8	U-0.030	U-0.030	U-0.029
9.0 in.	R-50.4	U-0.027	U-0.027	U-0.026
10 in.	R-56.0	U-0.024	U-0.024	U-0.024
11 in.	R-61.6	U-0.022	U-0.022	U-0.022
Continuous Insulation Uninterrupted by Framing				
No Framing	R-1.0	U-0.425	U-0.367	U-0.324
	R-2.0	U-0.298	U-0.269	U-0.245
	R-3.0	U-0.230	U-0.212	U-0.197
	R-4.0	U-0.187	U-0.175	U-0.164
	R-5.0	U-0.157	U-0.149	U-0.141
No Framing	R-6.0	U-0.136	U-0.129	U-0.124
	R-7.0	U-0.120	U-0.115	U-0.110
	R-8.0	U-0.107	U-0.103	U-0.099
	R-9.0	U-0.097	U-0.093	U-0.090
	R-10.0	U-0.088	U-0.085	U-0.083
No Framing	R-11.0	U-0.081	U-0.079	U-0.076
	R-12.0	U-0.075	U-0.073	U-0.071

<b>Framing Type and Depth</b>	<b>Rated R-value of Insulation Alone</b>	<b>Assembly U-factors for Solid Concrete Walls</b>	<b>Assembly U-factors for Concrete Block Walls: Solid Grouted</b>	<b>Assembly U-factors for Concrete Block Walls: Partially Grouted (Cores Uninsulated Except Where Specified)</b>
	R-13.0	U-0.070	U-0.068	U-0.066
	R-14.0	U-0.065	U-0.064	U-0.062
	R-15.0	U-0.061	U-0.060	U-0.059
No Framing	R-16.0	U-0.058	U-0.056	U-0.055
	R-17.0	U-0.054	U-0.053	U-0.052
	R-18.0	U-0.052	U-0.051	U-0.050
	R-19.0	U-0.049	U-0.048	U-0.047
	R-20.0	U-0.047	U-0.046	U-0.045
No Framing	R-21.0	U-0.045	U-0.044	U-0.043
	R-22.0	U-0.043	U-0.042	U-0.042
	R-23.0	U-0.041	U-0.040	U-0.040
	R-24.0	U-0.039	U-0.039	U-0.038
	R-25.0	U-0.038	U-0.037	U-0.037
No Framing	R-30.0	U-0.032	U-0.032	U-0.031
	R-35.0	U-0.028	U-0.027	U-0.027
	R-40.0	U-0.024	U-0.024	U-0.024
	R-45.0	U-0.022	U-0.021	U-0.021
	R-50.0	U-0.019	U-0.019	U-0.019
	R-55.0	U-0.018	U-18	U-0.018
	R-60.0	U-0.016	U-16	U-0.016
<b>Brick cavity wall with continuous insulation</b>				
No Framing	R-0.0	U-0.337	U-0.299	U-0.270
No Framing	R-3.8	U-0.148	U-0.140	U-0.133
No Framing	R-5.0	U-0.125	U-0.120	U-0.115
No Framing	R-6.5	U-0.106	U-0.102	U-0.098
No Framing	R-7.6	U-0.095	U-0.091	U-0.088
No Framing	R-10.0	U-0.077	U-0.075	U-0.073
No Framing	R-10.5	U-0.079	U-0.077	U-0.075
No Framing	R-11.4	U-0.070	U-0.068	U-0.066
No Framing	R-15.0	U-0.056	U-0.055	U-0.053
No Framing	R-16.5	U-0.054	U-0.053	U-0.052
No Framing	R-19.0	U-0.046	U-0.045	U-0.044
No Framing	R-22.5	U-0.041	U-0.040	U-0.039
No Framing	R-28.5	U-0.033	U-0.032	U-0.032
<b>Continuous Insulation Uninterrupted by Framing with Stucco and Continuous Metal Framing at 24 in. on center horizontally</b>				
1.0 in.	R-0.0 + R-19 c.i.	U-0.047	U-0.046	U-0.045
1.0 in.	R-3.8 + R-19 c.i.	U-0.045	U-0.044	U-0.044
1.0 in.	R-5.0 + R-19 c.i.	U-0.045	U-0.044	U-0.043
1.0 in.	R-6.5 + R-19 c.i.	U-0.045	U-0.044	U-0.043
1.5 in.	R-11.0 + R-19 c.i.	U-0.044	U-0.043	U-0.043
2.0	R-7.6 + R-19 c.i.	U-0.043	U-0.042	U-0.041
2.0	R-10.0 + R-19 c.i.	U-0.042	U-0.041	U-0.041
2.0	R-13.0 + R-19 c.i.	U-0.042	U-0.041	U-0.041

Framing Type and Depth	Rated R-value of Insulation Alone	Assembly U-factors for Solid Concrete Walls	Assembly U-factors for Concrete Block Walls: Solid Grouted	Assembly U-factors for Concrete Block Walls: Partially Grouted (Cores Uninsulated Except Where Specified)
3.0	R-11.4 + R-19 c.i.	U-0.041	U-0.040	U-0.039
3.0	R-15.0 + R-19 c.i.	U-0.040	U-0.039	U-0.039
3.0	R-19.0 + R-19 c.i.	U-0.040	U-0.039	U-0.038
3.5	R-11.0 + R-19 c.i.	U-0.040	U-0.039	U-0.039
3.5	R-13.0 + R-19 c.i.	U-0.040	U-0.039	U-0.038
5.0	R-19.0 + R-19 c.i.	U-0.037	U-0.036	U-0.036
5.0	R-25.0 + R-19 c.i.	U-0.036	U-0.035	U-0.035
5.0	R-32.5 + R-19 c.i.	U-0.035	U-0.035	U-0.034
5.5	R-19.0 + R-19 c.i.	U-0.036	U-0.036	U-0.035
5.5	R-21.0 + R-19 c.i.	U-0.035	U-0.035	U-0.035

A103.3.7.2 Peripheral edges of intermediate concrete floors. See Table A103.3.7.2.

**Table A103.3.7.2**  
**Default U-factors for Peripheral Edges of Intermediate Concrete Floors**

Slab Edge Treatment	Average Thickness of Wall above and below			
	6 inches	8 inches	10 inches	12 inches
Exposed Concrete	0.816	0.741	0.678	0.625
R-5 Exterior Insulation	0.161	0.157	0.154	0.152
R-6 Exterior Insulation	0.138	0.136	0.134	0.132
R-7 Exterior Insulation	0.122	0.120	0.118	0.116
R-8 Exterior Insulation	0.108	0.107	0.106	0.104
R-9 Exterior Insulation	0.098	0.097	0.095	0.094
R-10 Exterior Insulation	0.089	0.088	0.087	0.086
R-11 Exterior Insulation	0.082	0.081	0.080	0.079
R-12 Exterior Insulation	0.076	0.075	0.074	0.074
R-13 Exterior Insulation	0.070	0.070	0.069	0.068
R-14 Exterior Insulation	0.066	0.065	0.065	0.064
R-15 Exterior Insulation	0.062	0.061	0.061	0.060

NEW SECTION

**WAC 51-11C-61040 Section A104—Below-grade walls and slabs.**

NEW SECTION

**WAC 51-11C-61041 Section A104.1—General.**

**A104.1 General.** Table A104.1 lists heat loss coefficients for below-grade walls and floors.

Coefficients for below-grade walls are given as U-factors (Btu/h • ft<sup>2</sup> • °F of wall area). Coefficients for below-grade slabs are listed as F-factors (Btu/h • ft<sup>2</sup> • °F per lineal foot of slab perimeter).

Below-grade wall U-factors are only valid when used with the accompanying below-grade slab F-factor, and vice versa.

**Table A104.1**

**Default Wall U-factors and Slab F-factors for Basements**

	Below Grade Wall U-factor	Below Grade Slab F-factor
<b>2 Foot Depth Below Grade</b>		
Uninsulated	0.350	0.59
R-11 Interior	0.066	0.68
R-11 Interior w/TB	0.070	0.60
R-19 Interior	0.043	0.69
R-19 Interior w/TB	0.045	0.61
R-10 Exterior	0.070	0.60
R-12 Exterior	0.061	0.60
<b>3.5 Foot Depth Below Grade</b>		
Uninsulated	0.0278	0.53



	Below Grade Wall U-factor	Below Grade Slab F-factor
R-11 Interior	0.062	0.63
R-11 Interior w/TB	0.064	0.57
R-19 Interior	0.041	0.64
R-19 Interior w/TB	0.042	0.57
R-10 Exterior	0.064	0.57
R-12 Exterior	0.057	0.57
<b>7 Foot Depth Below Grade</b>		
Uninsulated	0.193	0.46
R-11 Interior	0.054	0.56
R-11 Interior w/TB	0.056	0.42
R-19 Interior	0.037	0.57
R-19 Interior w/TB	0.038	0.43
R-10 Exterior	0.056	0.42
R-12 Exterior	0.050	0.42

TB = Thermal Break

**NEW SECTION**

**WAC 51-11C-61042 Section A104.2—Component description.**

**A104.2 Component description.** All below-grade walls are assumed to be 8 inch concrete. The wall is assumed to extend from the slab upward to the top of the mud sill for the distance specified in Table A104.1, with 6 inches of concrete wall extending above grade.

Interior insulation is assumed to be fiberglass batts placed in the cavity formed by 2 x 4 framing on 24 inch centers with 1/2 inch gypsum board as the interior finish material. Exterior insulation is assumed to be applied directly to the exterior of the below-grade wall from the top of the wall to the footing. The exterior case does not assume any interior framing or sheetrock.

In all cases, the entire wall surface is assumed to be insulated to the indicated nominal level with the appropriate framing and insulation application. Coefficients are listed for wall depths of 2, 3-1/2 and 7 feet below grade. Basements shallower than two feet should use on-grade slab coefficients.

Heat-loss calculations for wall areas above-grade should use above-grade wall U-factors, beginning at the mudsill.

**NEW SECTION**

**WAC 51-11C-61043 Section A104.3—Insulation description.**

**A104.3 Insulation description.** Coefficients are listed for the following four configurations:

1. **Uninsulated:** No insulation or interior finish.
2. **Interior insulation:** Interior 2 x 4 insulated wall without a thermal break between concrete wall and slab.
3. **Interior insulation with thermal break:** Interior 2 x 4 insulated wall with R-5 rigid board providing a thermal break between the concrete wall and the slab.

4. **Exterior insulation:** Insulation applied directly to the exterior surface of the concrete wall.

**NEW SECTION**

**WAC 51-11C-61050 Section A105—Floors over unconditioned space.**

**NEW SECTION**

**WAC 51-11C-61051 Section A105.1—General.**

**A105.1 General.** Tables A105.1(1), A105.1(2) and A105.1(3) list heat loss coefficients for floors over unconditioned spaces in units of Btu/h • ft<sup>2</sup> • °F.

They are derived from procedures listed in the ASHRAE Fundamentals Handbook, assuming an average outdoor temperature of 45°F, an average indoor temperature of 65°F and a crawlspace area of 1350 ft<sup>2</sup> and 100 feet of perimeter. The crawlspace is assumed to be 2.5 feet high, with 24 inches below grade and 6 inches above grade.

**Table A105.1(1)  
Default U-factors for Floors  
over Vented Crawlspace or  
Unheated Basement**

Nominal R-value		U-factor	
Floor	Perimeter	Post & Beam	Joists
0	0	0.112	0.134
	11	0.100	0.116
	19	0.098	0.114
	30	0.093	0.107
11	0	0.052	0.056
	11	0.048	0.052
19	0	0.038	0.041
	11	0.036	0.038
22	0	0.034	0.037
	11	0.033	0.035
25	0	0.032	0.034
	11	0.031	0.033
30	0	0.028	0.029
	11	0.027	0.028
38	0	0.024	0.025
	11	0.024	0.024

**Table A105.1(2)  
Default U-factors for Floors over Heated Plenum Crawlspace**

Nominal R-value	U-factor
Perimeter	
11	0.085
19	0.075
30	0.069

Note: Crawlspace used as heated plenums have approximately 30 percent higher heat loss rate than unvented crawlspaces

with the same assumed ACH. Default U-factors in Table A105.1(3) reflect this higher rate of heat loss.

**Table A105.1(3)  
Default U-factors for Exposed Floors**

R-value	Nominal U-factor		
	Concrete	Wood Joist	Metal Joist
R-11	0.077	0.088	0.14
R-15	0.059	0.076	0.12
R-19	0.048	0.062	0.11
R-21	0.043	0.057	0.11
R-25	0.037	0.051	0.10
R-30	0.031	0.040	0.09
R-38	0.025	0.034	0.08

NEW SECTION

**WAC 51-11C-61052 Section A105.2—Crawlspace description.**

**A105.2 Crawlspace description.** Four configurations are considered: Naturally ventilated crawlspace, mechanically vented crawlspace, heated plenum crawlspace and exposed floor.

**A105.2.1 Naturally ventilated crawlspaces.** Assumed to have 3.0 air changes per hour, with at least 1.0 ft<sup>2</sup> of net-free ventilation in the foundation for every 300 ft<sup>2</sup> of crawlspace floor area. The crawlspace is not actively heated. Floors over unheated areas, such as garages, may only use those values which have R-0 perimeter insulation.

**A105.2.2 Mechanically ventilated crawlspaces.** Assume to have 1.5 air changes per hour, with less than 1.0 ft<sup>2</sup> of net-free ventilation in the foundation for every 300 ft<sup>2</sup> of crawlspace floor area. The crawlspace is not actively heated. Floors over unheated basements may only use those values which have R-0 perimeter insulation.

**A105.2.3 Heated plenum crawlspaces.** Assumed to have 0.25 air changes per hour, with no foundation vents. Heated supply air from central furnace is blown into a crawlspace and allowed to enter the living space unducted via holes cut into the floor.

**A105.2.4 Exposed floors.** Assumes no buffer space, and a covering of 1/2 inch T1-11 on the exterior of the cavity exposed to the outside air or rigid insulation below a concrete floor, such as over parking garages.

NEW SECTION

**WAC 51-11C-61053 Section A105.3—Construction description.**

**A105.3 Construction description.** Floors are assumed to be either joisted floors framed on 16 inch centers, or post and beam on 4 foot by 8 foot squares. Insulation is assumed to be installed under the subflooring between the joists or beams with no space between the insulation and the subfloor. Insulation is assumed to be uncompressed. Exposed floors also include concrete with continuous rigid insulation assumed.

Perimeter insulation is assumed to extend from the top of the rim joist to the crawlspace floor and then inward along the ground (on top of the ground cover) for at least 24 inches.

Floor coverings are assumed to be light carpet with rubber pad.

NEW SECTION

**WAC 51-11C-61060 Section A106—On-grade slab floors.**

NEW SECTION

**WAC 51-11C-61061 Section A106.1—General.**

**A106.1 General.** Table A106.1 lists heat loss coefficients for heated on-grade slab floors, in units of Btu/h • °F per lineal foot of perimeter.

**Table A106.1  
Default F-factors for On-Grade Slabs**

Insulation Type	R-0	R-5	R-10	R-15	R-20	R-30
<b>Unheated Slab</b>						
Uninsulated slab	0.73	—	—	—		
2 ft. Horizontal (No thermal break)	—	0.70	0.70	0.69		
4 ft. Horizontal (No thermal break)	—	0.67	0.64	0.63		
2 ft. Vertical	—	0.58	0.54	0.52		
4 ft. Vertical	—	0.54	0.48	0.45		
Fully insulated slab*	—	—	0.36	0.31	0.26	0.21
<b>Heated Slab</b>						
Uninsulated slab	0.84	—	—	—		
Fully insulated slab*	—	0.74	0.55	0.44	0.39	0.32
R-5 Center (With perimeter insulation)	—	—	0.66	0.62		
R-10 Center (With perimeter insulation)	—	—	—	0.51		
3 ft. Vertical	—	—	0.78	—		

\*Edge insulation R-10 regardless of the below slab insulation level.

NEW SECTION

**WAC 51-11C-61062 Section A106.2—Component description.**

**A106.2 Component description.** All on-grade slab floors are assumed to be 6 inch concrete poured directly onto the earth. The bottom of the slab is assumed to be at grade line. Monolithic and floating slabs are not differentiated.

Soil is assumed to have a conductivity of 0.75 Btu/h • ft<sup>2</sup> • °F. Slabs 2 feet or more below grade should use basement coefficients.

NEW SECTION

**WAC 51-11C-61063 Section A106.3—Insulation description.**

**A106.3 Insulation description.** Coefficients are provided for the following three configurations:

1. **Two foot (or four foot) vertical:** Insulation is applied directly to the slab exterior, extending downward from the top of the slab to a depth of 2 feet (or 4 feet) below grade.

NEW SECTION

**WAC 51-11C-61071 Table A107.1(1)—Default U-factors for doors.**

**Table A107.1(1)  
Default U-factors for Doors**

Door Type	No Glaze Fenestration	Single Glazing	Double Glazing with 1/4 in. Airspace	Double Glazing with 1/2 in. Airspace	Double Glazing with e = 0.10, 1/2 in. Argon
<b>Swinging Doors (Rough opening - 38 in. x 82 in.)</b>					
<b>Slab Doors</b>					
Wood slab in wood frame <sup>a</sup>	0.46				
6% glazed fenestration (22 in. x 8 in. lite)	-	0.48	0.47	0.46	0.44
25% glazed fenestration (22 in. x 36 in. lite)	-	0.58	0.48	0.46	0.42
45% glazed fenestration (22 in. x 64 in. lite)	-	0.69	0.49	0.46	0.39
More than 50% glazed fenestration	Use Table C303.1.3(1)				
Insulated steel slab with wood edge in wood frame <sup>a</sup>	0.16				
6% glazed fenestration (22 in. x 8 in. lite)	-	0.21	0.20	0.19	0.18
25% glazed fenestration (22 in. x 36 in. lite)	-	0.39	0.28	0.26	0.23
45% glazed fenestration (22 in. x 64 in. lite)	-	0.58	0.38	0.35	0.26
More than 50% glazed fenestration	Use Table C303.1.3(1)				

2. **Two foot (or four foot) horizontal:** Insulation is applied directly to the underside of the slab, and run horizontally from the perimeter inward for 2 feet (or 4 feet). The slab edge is exposed in this configuration.

Note: A horizontal installation with a thermal break of at least R-5 at the slab edge should use the vertical-case F-factors.

3. **Fully insulated slab:** Insulation extends from the top of the slab, along the entire perimeter, and completely covers the area under the slab. Thicker perimeter insulation covers the slab edge and extends 2 feet under the slab.

NEW SECTION

**WAC 51-11C-61070 Section A107—Default U-factors for doors.**

NEW SECTION

**WAC 51-11C-61071 Section A107.1—Doors without NFRC certification.**

**A107.1 Doors without NFRC certification.** Doors that do not have NFRC certification shall be assigned the appropriate U-factor from Tables A107.1(1) through A107.1(4).

Door Type	No Glaze Fenestration	Single Glazing	Double Glazing with 1/4 in. Airspace	Double Glazing with 1/2 in. Airspace	Double Glazing with e = 0.10, 1/2 in. Argon
Foam insulated steel slab with metal edge in steel frame <sup>b</sup>	0.37				
6% glazed fenestration (22 in. x 8 in. lite)	-	0.44	0.42	0.41	0.39
25% glazed fenestration (22 in. x 36 in. lite)	-	0.55	0.50	0.48	0.44
45% glazed fenestration (22 in. x 64 in. lite)	-	0.71	0.59	0.56	0.48
More than 50% glazed fenestration	Use Table C303.1.3(1)				
Cardboard honeycomb slab with metal edge in steel frame <sup>b</sup>	0.61				
<b>Style and Rail Doors</b>					
Sliding glass doors/French doors	Use Table C303.1.3(1)				
<b>Site-Assembled Style and Rail Doors</b>					
Aluminum in aluminum frame	-	1.32	0.99	0.93	0.79
Aluminum in aluminum frame with thermal break	-	1.13	0.80	0.74	0.63

<sup>a</sup>Thermally broken sill (add 0.03 for nonthermally broken sill)

<sup>b</sup>Nonthermally broken sill

<sup>c</sup>Nominal U-factors are through the center of the insulated panel before consideration of thermal bridges around the edges of the door sections and due to the frame.

NEW SECTION

**WAC 51-11C-610712 Table A107.1(2)—Default U-factors for revolving doors.**

**Table A107.1(2)  
Default U-factors for Revolving Doors**

Revolving Doors	
Size (W x H)	U-Factor
3-wing	
8 ft. x 7 ft.	0.79
10 ft. x 8 ft.	0.80
4-wing	
7 ft. x 6.5 ft.	0.63
7 ft. x 7.5 ft.	0.64
Open	
82 in. x 84 in.	1.32

NEW SECTION

**WAC 51-11C-610713 Table A107.1(3)—Default U-factors for steel emergency doors.**

**Table A107.1(3)  
Default U-factors for Steel Emergency Doors**

Double-skin Steel Emergency Exit Doors		
Core Insulation	3 ft. x 6 ft. 8 in.	6 ft. x 6 ft. 8 in.
1-3/8 in. thickness		
Honeycomb kraft paper	0.57	0.52
Mineral wool, steel ribs	0.44	0.36
Polyurethane foam	0.34	0.28
1-3/4 in. thickness		
Honeycomb kraft paper	0.57	0.54
Mineral wool, steel ribs	0.41	0.33
Polyurethane foam	0.31	0.26
1-3/8 in. thickness		
Honeycomb kraft paper	0.60	0.55
Mineral wool, steel ribs	0.47	0.39
Polyurethane foam	0.37	0.31
1-3/4 in. thickness		
Honeycomb kraft paper	0.60	0.57
Mineral wool, steel ribs	0.44	0.37
Polyurethane foam	0.34	0.30

**NEW SECTION**

**WAC 51-11C-610714 Table A107.1(4)—Default U-factors for steel garage and hangar doors.**

**Table A107.1(4)  
Default U-factors for Steel Garage and Hangar Doors**

Double-skin Steel Garage and Aircraft Hangar Doors					
Insulation <sup>e</sup>	One-piece tilt-up <sup>a</sup>		Sectional tilt-up <sup>b</sup>	Aircraft hangar	
	8 ft. x 7 ft.	16 ft. x 7 ft.	9 ft. x 7 ft.	72 ft. x 12 ft. <sup>c</sup>	240 ft. x 50 ft. <sup>d</sup>
1-3/8 in. thickness					
EPS, steel ribs	0.36	0.33	0.34 - 0.39		
XPS, steel ribs	0.33	0.31	0.31 - 0.36		
2 in. thickness					
EPS, steel ribs	0.31	0.28	0.29 - 0.33		
XPS, steel ribs	0.29	0.26	0.27 - 0.31		
3 in. thickness					
EPS, steel ribs	0.26	0.23	0.25 - 0.28		
XPS, steel ribs	0.24	0.21	0.24 - 0.27		
4 in. thickness					
EPS, steel ribs	0.23	0.20	0.23 - 0.25		
XPS, steel ribs	0.21	0.19	0.21 - 0.24		
6 in. thickness					
EPS, steel ribs	0.20	0.16	0.20 - 0.21		
XPS, steel ribs	0.19	0.15	0.19 - 0.21		
4 in. thickness					
Noninsulated				1.10	1.23
Expanded polystyrene				0.25	0.16
Mineral wool, steel ribs				0.25	0.16
Extruded polystyrene				0.23	0.15
6 in. thickness					
Noninsulated				1.10	1.23
Expanded polystyrene				0.21	0.13
Mineral wool, steel ribs				0.23	0.13
Extruded polystyrene				0.20	0.12
Uninsulated					
All products	1.15				

<sup>a</sup>Values are for thermally broken or thermally unbroken doors.  
<sup>b</sup>Lower values are for thermally broken doors; upper values are for doors with no thermal break.  
<sup>c</sup>Typical size for a small private airplane (single-engine or twin).  
<sup>d</sup>Typical hangar door for a midsize commercial jet airliner.  
<sup>e</sup>EPS is extruded polystyrene, XPS is expanded polystyrene.

**NEW SECTION**

**WAC 51-11C-61080 Section A108—Air infiltration.**

**NEW SECTION**

**WAC 51-11C-61081 Section A108.1—General.**

**A108.1 General.** Tables A108.1(1) and A108.1(2) list effective air change rates and heat capacities for heat loss due to infiltration for Single-Family Residential.

The estimated seasonal average infiltration rate in air changes per hour (ACH) is given for standard air-leakage control (see Section C502.4 of this Code for air leakage requirements for Single-Family Residential). The effective air change rate shall be used in calculations for compliance under either the Component Performance or Systems Analysis approaches.

Heat loss due to infiltration shall be computed using the following equation:

$$Q_{infil} = ACH_{eff} * HCP$$

Where:

$Q_{infil}$  = Heat loss due to air infiltration.

$ACH_{eff}$  = The effective air infiltration rate in Table A108.1(1)

HCP = The Heat Capacity Density Product for the appropriate elevation or climate zone as given below.

**Table A108.1(1)  
Assumed Effective Air Changes  
per Hour**

Air-Leakage Control Package	Air Changes per Hour	
	Natural	Effective
Standard	0.35	0.35

**Table A108.1(2)  
Default Heat Capacity/Density  
Product for Air**

Zone	Average Elevation	Heat Capacity/Density
1	Mean Sea Level	0.0180 Btu/h • °F
2	2000	0.0168 Btu/h • °F
3	3000	0.0162 Btu/h • °F

NEW SECTION

**WAC 51-11C-70000 Appendix B—Default internal load values and schedules.**

NEW SECTION

**WAC 51-11C-71021 Table B102—Acceptable occupancy densities, receptacle power densities and service hot water consumption.**

**TABLE B102  
Acceptable Occupancy Densities, Receptacle Power Densities  
and Service Hot Water Consumption<sup>a</sup>**

Building Type	Occupancy Density <sup>b</sup> ft <sup>2</sup> /Person (Btu/h • ft <sup>2</sup> )	Receptacle Power Density <sup>c</sup> , Watts/ft <sup>2</sup> (Btu/h • ft <sup>2</sup> )	Service Hot Water Quantities <sup>d</sup> Btu/h per person
Assembly	50 (4.60)	0.25 (0.85)	215
Health/Institutional	200 (1.15)	1.00 (3.41)	135
Hotel/Motel	250 (0.92)	0.25 (0.85)	1,110
Light Manufacturing	750 (0.31)	0.20 (0.68)	225
Office	275 (0.84)	0.75 (2.56)	175
Parking Garage	NA	NA	NA
Restaurant	100 (2.30)	0.10 (0.34)	390
Retail	300 (3.07)	0.25 (0.85)	135
School	75 (3.07)	0.50 (1.71)	215
Warehouse	15,000 (0.02)	0.10 (0.34)	225

<sup>a</sup>The occupancy densities, receptacle power densities, and service hot water consumption values are from ASHRAE Standard 90.1-1989 and addenda.

<sup>b</sup>Values are in square feet of conditioned floor area per person. Heat generation in Btu per person per hour is 230 sensible and 190 latent. Figures in parenthesis are equivalent Btu per hour per square foot.

<sup>c</sup>Values are in watts per square foot of conditioned floor area. Figures in parenthesis are equivalent Btu per hour per square foot. These values are the minimum acceptable. If other process loads are not input (such as for computers, cooking, refrigeration, etc.), it is recommended that receptacle power densities be increased until total process energy consumption is equivalent to 25 percent of the total.

<sup>d</sup>Values are in Btu per person per hour.

NEW SECTION

**WAC 51-11C-71030 Section B103—Default schedules.**

**B103 Default schedules.** Default schedules for occupancy, lighting, receptacles, HVAC, service hot water, and elevators are included in Tables B103(1) through B103(10).

NEW SECTION

**WAC 51-11C-71010 Section B101—General.**

**B101.1 Scope.** The following default internal load values and schedules shall apply to Section C407.

NEW SECTION

**WAC 51-11C-71020 Section B102—Default tables of internal loads.**

**B102 Default tables of internal loads.** Default occupancy densities, receptacle power densities and service hot water consumption are included in Table B102.

NEW SECTION

WAC 51-11C-71031 Table B103(1)—Assembly occupancy.

Table B103(1)  
Assembly Occupancy<sup>a</sup>

Hour of Day (time)	Schedule for Occupancy <i>Percent of Maximum Load</i>			Schedule for Lighting <sup>b/</sup> Receptacle <i>Percent of Maximum Load</i>			Schedule for HVAC System			Schedule for Service Hot Water <i>Percent of Maximum Load</i>			Schedule for Elevator <i>Percent of Maximum Load</i>		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
	1 (12-1am)	0	0	0	5	5	5	Off	Off	Off	0	0	0	0	0
2 (1-2am)	0	0	0	5	5	5	Off	Off	Off	0	0	0	0	0	0
3 (2-3am)	0	0	0	5	5	5	Off	Off	Off	0	0	0	0	0	0
4 (3-4am)	0	0	0	5	5	5	Off	Off	Off	0	0	0	0	0	0
5 (4-5am)	0	0	0	5	5	5	Off	Off	Off	0	0	0	0	0	0
6 (5-6am)	0	0	0	5	5	5	On	Off	Off	0	0	0	0	0	0
7 (6-7am)	0	0	0	35/40	5	5	On	On	On	0	0	0	0	0	0
8 (7-8am)	0	0	0	35/40	30	30	On	On	On	0	0	0	0	0	0
9 (8-9am)	20	20	10	35/40	30	30	On	On	On	0	0	0	0	0	0
10 (9-10am)	20	20	10	65/75	40/50	30	On	On	On	5	5	5	0	0	0
11 (10-11am)	20	20	10	65/75	40/50	30	On	On	On	5	5	5	0	0	0
12 (11-12pm)	80	60	10	65/75	40/50	30	On	On	On	35	20	10	0	0	0
13 (12-1pm)	80	60	10	65/75	40/50	55/65	On	On	On	5	0	0	0	0	0
14 (1-2pm)	80	60	70	65/75	40/50	55/65	On	On	On	5	0	0	0	0	0
15 (2-3pm)	80	60	70	65/75	40/50	55/65	On	On	On	5	0	0	0	0	0
16 (3-4pm)	80	60	70	65/75	40/50	55/65	On	On	On	5	0	0	0	0	0
17 (4-5pm)	80	60	70	65/75	40/50	55/65	On	On	On	5	0	0	0	0	0
18 (5-6pm)	80	60	70	65/75	40/50	55/65	On	On	On	0	0	0	0	0	0
19 (6-7pm)	20	60	70	65/75	40/50	55/65	On	On	On	0	0	0	0	0	0
20 (7-8pm)	20	60	70	65/75	40/50	55/65	On	On	On	0	65	65	0	0	0
21 (8-9pm)	20	60	70	65/75	40/50	55/65	On	On	On	0	30	30	0	0	0
22 (9-10pm)	20	80	70	65/75	40/50	55/65	On	On	On	0	0	0	0	0	0
23 (10-11pm)	10	10	20	25	40/50	5	On	On	On	0	0	0	0	0	0
24 (11-12am)	0	0	0	5	5	5	Off	Off	Off	0	0	0	0	0	0
Total/Day	710	750	700	1010/ 1155	660/ 800	745/845	1800	1700	1700	70	125	115	0	0	0
Total/Week		50.50	hours		64.55/ 74.20	hours		124	hours		5.9	hours		0	hours
Total/Year		2633	hours		3357/ 3869	hours		6465	hours		308	hours		0	hours

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system, and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2.

NEW SECTION

WAC 51-11C-71032 Table B103(2)—Assembly occupancy.

Table B103(2)  
Health Occupancy<sup>a</sup>

Hour of Day (time)	Schedule for Occupancy <i>Percent of Maximum Load</i>			Schedule for Lighting <sup>b/</sup> Receptacle <i>Percent of Maximum Load</i>			Schedule for HVAC System			Schedule for Service Hot Water <i>Percent of Maximum Load</i>			Schedule for Elevator <i>Percent of Maximum Load</i>		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
	1 (12-1am)	0	0	0	10	10	5	On	On	On	1	1	1	0	0
2 (1-2am)	0	0	0	10	10	5	On	On	On	1	1	1	0	0	0
3 (2-3am)	0	0	0	10	10	5	On	On	On	1	1	1	0	0	0
4 (3-4am)	0	0	0	10	10	5	On	On	On	1	1	1	0	0	0
5 (4-5am)	0	0	0	10	10	5	On	On	On	1	1	1	0	0	0
6 (5-6am)	0	0	0	10	10	5	On	On	On	1	1	1	0	0	0
7 (6-7am)	0	0	0	10	10	5	On	On	On	1	1	1	0	0	0
8 (7-8am)	10	10	0	45/50	20	5	On	On	On	17	1	1	2	2	0
9 (8-9am)	50	30	5	80/90	35/40	10	On	On	On	58	20	1	75	46	2
10 (9-10am)	80	40	5	80/90	35/40	10	On	On	On	66	28	1	100	70	2
11 (10-11am)	80	40	5	80/90	35/40	10	On	On	On	78	30	1	100	70	2
12 (11-12pm)	80	40	5	80/90	35/40	10	On	On	On	82	30	1	100	70	2
13 (12-1pm)	80	40	5	80/90	35/40	10	On	On	On	71	24	1	75	51	2
14 (1-2pm)	80	40	5	80/90	35/40	10	On	On	On	82	24	1	100	51	2
15 (2-3pm)	80	40	5	80/90	35/40	10	On	On	On	78	23	1	100	51	2
16 (3-4pm)	80	40	5	80/90	35/40	10	On	On	On	74	23	1	100	51	2
17 (4-5pm)	80	40	0	30	35/40	5	On	On	On	63	23	1	100	51	0
18 (5-6pm)	50	10	0	30	35/40	5	On	On	On	41	10	1	100	25	0
19 (6-7pm)	30	10	0	30	10	5	On	On	On	18	1	1	52	2	0
20 (7-8pm)	30	0	0	30	10	5	On	On	On	18	1	1	52	0	0
21 (8-9pm)	20	0	0	30	10	5	On	On	On	18	1	1	52	0	0
22 (9-10pm)	20	0	0	30	10	5	On	On	On	10	1	1	28	0	0
23 (10-11pm)	0	0	0	30	10	5	On	On	On	1	1	1	0	0	0
24 (11-12am)	0	0	0	10	10	5	On	On	On	1	1	1	0	0	0
Total/Day	850	380	40	975/ 1060	500/ 550	160	2400	2400	2400	783	249	24	1136	540	16
Total/Week		46.70	hours		55.35/ 60.10	hours		168	hours		41.88	hours		62.36	hours
Total/Year		2435	hours		2878/ 3134	hours		8760	hours		2148	hours		3251	hours

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system, and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2.



NEW SECTION

WAC 51-11C-71033 Table B103(3)—Hotel/motel occupancy.

Table B103(3)  
Hotel/Motel Occupancy<sup>a</sup>

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting/ Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	90	90	70	20	20	30	On	On	On	20	20	25	40	44	55
2 (1-2am)	90	90	70	15	20	30	On	On	On	15	15	20	33	35	55
3 (2-3am)	90	90	70	10	10	20	On	On	On	15	15	20	33	35	43
4 (3-4am)	90	90	70	10	10	20	On	On	On	15	15	20	33	35	43
5 (4-5am)	90	90	70	10	10	20	On	On	On	20	20	20	33	35	43
6 (5-6am)	90	90	70	20	10	20	On	On	On	25	25	30	33	35	43
7 (6-7am)	70	70	70	40	30	30	On	On	On	50	40	50	42	40	52
8 (7-8am)	40	50	70	50	30	40	On	On	On	60	50	50	42	32	52
9 (8-9am)	40	50	50	40	40	40	On	On	On	55	50	50	52	45	65
10 (9-10am)	20	30	50	40	40	30	On	On	On	45	50	55	52	45	65
11 (10-11am)	20	30	50	25	30	30	On	On	On	40	45	50	40	42	53
12 (11-12pm)	20	30	30	25	25	30	On	On	On	45	50	50	51	60	60
13 (12-1pm)	20	30	30	25	25	30	On	On	On	40	50	40	51	65	53
14 (1-2pm)	20	30	20	25	25	20	On	On	On	35	45	40	51	65	51
15 (2-3pm)	20	30	20	25	25	20	On	On	On	30	40	30	51	65	50
16 (3-4pm)	30	30	20	25	25	20	On	On	On	30	40	30	51	65	44
17 (4-5pm)	50	30	30	25	25	20	On	On	On	30	35	30	63	65	64
18 (5-6pm)	50	50	40	25	25	20	On	On	On	40	40	40	80	75	62
19 (6-7pm)	50	60	40	60	60	50	On	On	On	55	55	50	86	80	65
20 (7-8pm)	70	60	60	80	70	70	On	On	On	60	55	50	70	80	63
21 (8-9pm)	70	60	60	90	70	80	On	On	On	50	50	40	70	75	63
22 (9-10pm)	80	70	80	80	70	60	On	On	On	55	55	50	70	75	63
23 (10-11pm)	90	70	80	60	60	50	On	On	On	45	40	40	45	55	40
24 (11-12am)	90	70	80	30	30	30	On	On	On	25	30	20	45	55	40
Total/Day	1390	1390	1300	855	785	810	2400	2400	2400	915	930	900	1217	1303	1287
Total/Week		96.40	hours		58.70	hours		168.0	hours		64.05	hours		86.75	hours
Total/Year		5026	hours		3061	hours		8760	hours		3340	hours		4523	hours

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system, and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

NEW SECTION

WAC 51-11C-71034 Table B103(4)—Light manufacturing occupancy.

Table B103(4)  
Light Manufacturing Occupancy<sup>a</sup>

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting <sup>b</sup> / Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
2 (1-2am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0

Hour of Day (time)	Schedule for Occupancy <i>Percent of Maximum Load</i>			Schedule for Lighting <sup>b</sup> / Receptacle <i>Percent of Maximum Load</i>			Schedule for HVAC System			Schedule for Service Hot Water <i>Percent of Maximum Load</i>			Schedule for Elevator <i>Percent of Maximum Load</i>		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
	3 (2-3am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0
4 (3-4am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
5 (4-5am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
6 (5-6am)	0	0	0	10	5	5	Off	Off	Off	8	8	7	0	0	0
7 (6-7am)	10	10	5	10	10	5	On	On	Off	7	7	4	0	0	0
8 (7-8am)	20	10	5	30	10	5	On	On	Off	19	11	4	35	16	0
9 (8-9am)	95	30	5	85/90	30	5	On	On	Off	35	15	4	69	14	0
10 (9-10am)	95	30	5	85/90	30	5	On	On	Off	38	21	4	43	21	0
11 (10-11am)	95	30	5	85/90	30	5	On	On	Off	39	19	4	37	18	0
12 (11-12pm)	95	30	5	85/90	30	5	On	On	Off	47	23	6	43	25	0
13 (12-1pm)	50	10	5	75/80	15	5	On	On	Off	57	20	6	58	21	0
14 (1-2pm)	95	10	5	85/90	15	5	On	On	Off	54	19	9	48	13	0
15 (2-3pm)	95	10	5	85/90	15	5	On	On	Off	34	15	6	37	8	0
16 (3-4pm)	95	10	5	85/90	15	5	On	On	Off	33	12	4	37	4	0
17 (4-5pm)	95	10	5	85/90	15	5	On	On	Off	44	14	4	46	5	0
18 (5-6pm)	30	5	5	50	5	5	On	On	Off	26	7	4	62	6	0
19 (6-7pm)	10	5	0	30	5	5	On	Off	Off	21	7	4	20	0	0
20 (7-8pm)	10	0	0	30	5	5	On	Off	Off	15	7	4	12	0	0
21 (8-9pm)	10	0	0	20	5	5	On	Off	Off	17	7	4	4	0	0
22 (9-10pm)	10	0	0	20	5	5	On	Off	Off	8	9	7	4	0	0
23 (10-11pm)	5	0	0	10	5	5	Off	Off	Off	5	5	4	0	0	0
24 (11-12am)	5	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
Total/Day	920	200	60	995/ 1040	280	120	1600	1200	0	537	256	113	555	151	0
Total/Week		48.60	hours		53.75/ 56.00	hours		92.00	hours		30.54	hours		29.26	hours
Total/Year		2534	hours		2795/ 2920	hours		4797	hours		1592	hours		1526	hours

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system, and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2.

**NEW SECTION**

**WAC 51-11C-71035 Table B103(5)—Office occupancy.**

**Table B103(5)  
Office Occupancy<sup>a</sup>**

Hour of Day (time)	Schedule for Occupancy <i>Percent of Maximum Load</i>			Schedule for Lighting <sup>b</sup> / Receptacle <i>Percent of Maximum Load</i>			Schedule for HVAC System			Schedule for Service Hot Water <i>Percent of Maximum Load</i>			Schedule for Elevator <i>Percent of Maximum Load</i>		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
	1 (12-1am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0
2 (1-2am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
3 (2-3am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
4 (3-4am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
5 (4-5am)	0	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
6 (5-6am)	0	0	0	10	5	5	Off	Off	Off	8	8	7	0	0	0
7 (6-7am)	10	10	5	10	10	5	On	On	Off	7	7	4	0	0	0

Hour of Day (time)	Schedule for Occupancy Percent of Maximum Load			Schedule for Lighting <sup>b/</sup> Receptacle Percent of Maximum Load			Schedule for HVAC System			Schedule for Service Hot Water Percent of Maximum Load			Schedule for Elevator Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
8 (7-8am)	20	10	5	30	10	5	On	On	Off	19	11	4	35	16	0
9 (8-9am)	95	30	5	65/90	30	5	On	On	Off	35	15	4	69	14	0
10 (9-10am)	95	30	5	65/90	30	5	On	On	Off	38	21	4	43	21	0
11 (10-11am)	95	30	5	65/90	30	5	On	On	Off	39	19	4	37	18	0
12 (11-12pm)	95	30	5	65/90	30	5	On	On	Off	47	23	6	43	25	0
13 (12-1pm)	50	10	5	55/80	15	5	On	On	Off	57	20	6	58	21	0
14 (1-2pm)	95	10	5	65/90	15	5	On	On	Off	54	19	9	48	13	0
15 (2-3pm)	95	10	5	65/90	15	5	On	On	Off	34	15	6	37	8	0
16 (3-4pm)	95	10	5	65/90	15	5	On	On	Off	33	12	4	37	4	0
17 (4-5pm)	95	10	5	65/90	15	5	On	On	Off	44	14	4	46	5	0
18 (5-6pm)	30	5	5	35/50	5	5	On	On	Off	26	7	4	62	6	0
19 (6-7pm)	10	5	0	30	5	5	On	On	Off	21	7	4	20	0	0
20 (7-8pm)	10	0	0	30	5	5	On	Off	Off	15	7	4	12	0	0
21 (8-9pm)	10	0	0	20	5	5	On	Off	Off	17	7	4	4	0	0
22 (9-10pm)	10	0	0	20	5	5	On	Off	Off	8	9	7	4	0	0
23 (10-11pm)	5	0	0	10	5	5	Off	Off	Off	5	5	4	0	0	0
24 (11-12am)	5	0	0	5	5	5	Off	Off	Off	5	5	4	0	0	0
Total/Day	920	200	60	800/ 1040	280	120	1600	1200	0	537	256	113	555	151	0
Total/Week		48.60	hours		44.00/ 56.00	hours		92.00	hours		30.54	hours		29.26	hours
Total/Year		2534	hours		2288/ 2920	hours		4797	hours		1592	hours		1526	hours

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system, and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2.

**NEW SECTION**

**WAC 51-11C-71036 Table B103(6)—Parking garage occupancy.**

**Table B103(6)  
Parking Garage Occupancy<sup>a</sup>**

Hour of Day (time)	Schedule for Occupancy Percent of Maximum Load			Schedule for Lighting <sup>b/</sup> Receptacle Percent of Maximum Load			Schedule for HVAC System			Schedule for Service Hot Water Percent of Maximum Load			Schedule for Elevator Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)				50/100	50/100	50/100									
2 (1-2am)				50/100	50/100	50/100									
3 (2-3am)				50/100	50/100	50/100									
4 (3-4am)				50/100	50/100	50/100									
5 (4-5am)				50/100	50/100	50/100									
6 (5-6am)				50/100	50/100	50/100									
7 (6-7am)				100	100	50/100									
8 (7-8am)				100	100	50/100									
9 (8-9am)				100	100	50/100									
10 (9-10am)				100	100	50/100			Based						Included
11 (10-11am)				100	100	50/100			on						with
12 (11-12pm)		N/A		100	100	50/100			likely		N/A				other

Hour of Day (time)	Schedule for Occupancy Percent of Maximum Load			Schedule for Lighting <sup>b</sup> / Receptacle Percent of Maximum Load			Schedule for HVAC System			Schedule for Service Hot Water Percent of Maximum Load			Schedule for Elevator Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
13 (12-1pm)				100	100	50/100	use						occupancies		
14 (1-2pm)				100	100	50/100									
15 (2-3pm)				100	100	50/100									
16 (3-4pm)				100	100	50/100									
17 (4-5pm)				100	100	50/100									
18 (5-6pm)				100	50/100	50/100									
19 (6-7pm)				100	50/100	50/100									
20 (7-8pm)				100	50/100	50/100									
21 (8-9pm)				100	50/100	50/100									
22 (9-10pm)				100	50/100	50/100									
23 (10-11pm)				50/100	50/100	50/100									
24 (11-12am)				50/100	50/100	50/100									
Total/Day				2000/ 2400	1750/ 2400	1200/ 2400									
Total/Week					129.50/ 168	hours									
Total/Year					6734/ 8760	hours									

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2. For parking garage lighting, the schedule has been revised to accompany the office schedule: The lighting in the parking garage is set to be on at 100 percent for all hours when the building occupancy is 10 percent or greater, but reduced to 50 percent (per Section C405.2) for all hours when the building occupancy is less than 10 percent. For a parking garage serving a use other than office, it is acceptable to modify the parking garage schedule to parallel that use.

NEW SECTION

**WAC 51-11C-71037 Table B103(7)—Restaurant occupancy.**

**Table B103(7)  
Restaurant Occupancy<sup>a</sup>**

Hour of Day (time)	Schedule for Occupancy Percent of Maximum Load			Schedule for Lighting <sup>b</sup> / Receptacle Percent of Maximum Load			Schedule for HVAC System			Schedule for Service Hot Water Percent of Maximum Load			Schedule for Elevator Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	15	30	20	15	20	20	On	On	On	20	20	25	0	0	0
2 (1-2am)	15	25	20	15	15	15	On	On	On	15	15	20	0	0	0
3 (2-3am)	5	5	5	15	15	15	On	On	On	15	15	20	0	0	0
4 (3-4am)	0	0	0	15	15	15	Off	Off	Off	0	0	0	0	0	0
5 (4-5am)	0	0	0	15	15	15	Off	Off	Off	0	0	0	0	0	0
6 (5-6am)	0	0	0	20	15	15	Off	Off	Off	0	0	0	0	0	0
7 (6-7am)	0	0	0	35/40	30	30	Off	Off	Off	0	0	0	0	0	0
8 (7-8am)	5	0	0	35/40	30	30	On	Off	Off	60	0	0	0	0	0
9 (8-9am)	5	0	0	55/60	55/60	45/50	On	Off	Off	55	0	0	0	0	0
10 (9-10am)	5	5	0	55/60	55/60	45/50	On	On	Off	45	50	0	0	0	0
11 (10-11am)	20	20	10	85/90	75/80	65/70	On	On	On	40	45	50	0	0	0
12 (11-12pm)	50	45	20	85/90	75/80	65/70	On	On	On	45	50	50	0	0	0
13 (12-1pm)	80	50	25	85/90	75/80	65/70	On	On	On	40	50	40	0	0	0
14 (1-2pm)	70	50	25	85/90	75/80	65/70	On	On	On	35	45	40	0	0	0

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting <sup>b</sup> / Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load			Schedule for HVAC System			Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
15 (2-3pm)	40	35	15	85/90	75/80	65/70	On	On	On	30	40	30	0	0	0
16 (3-4pm)	20	30	20	85/90	75/80	65/70	On	On	On	30	40	30	0	0	0
17 (4-5pm)	25	30	25	85/90	75/80	55/60	On	On	On	30	35	30	0	0	0
18 (5-6pm)	50	30	35	85/90	85/90	55/60	On	On	On	40	40	40	0	0	0
19 (6-7pm)	80	70	55	85/90	85/90	55/60	On	On	On	55	55	50	0	0	0
20 (7-8pm)	80	90	65	85/90	85/90	55/60	On	On	On	60	55	50	0	0	0
21 (8-9pm)	80	70	70	85/90	85/90	55/60	On	On	On	50	50	40	0	0	0
22 (9-10pm)	50	65	35	85/90	85/90	55/60	On	On	On	55	55	50	0	0	0
23 (10-11pm)	35	55	20	45/50	45/50	45/50	On	On	On	45	40	40	0	0	0
24 (11-12am)	20	35	20	30	30	30	On	On	On	25	30	20	0	0	0
Total/Day	750	740	485	1370/ 1455	1290/ 1365	1040/ 1115	2000	1800	1700	790	730	625	0	0	0
Total/Week		49.75	hours		91.80/ 97.55	hours		135	hours		53.05	hours		0	hours
Total/Year		2594	hours		4774/ 5086	hours		7039	hours		2766	hours		0	hours

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2.

**NEW SECTION**

**WAC 51-11C-71038 Table B103(8)—Retail occupancy.**

**Table B103(8)  
Retail Occupancy<sup>a</sup>**

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting <sup>b</sup> / Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load			Schedule for HVAC System			Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	Off	Off	Off	4	11	7	0	0	0
2 (1-2am)	0	0	0	5	5	5	Off	Off	Off	5	10	7	0	0	0
3 (2-3am)	0	0	0	5	5	5	Off	Off	Off	5	8	7	0	0	0
4 (3-4am)	0	0	0	5	5	5	Off	Off	Off	4	6	6	0	0	0
5 (4-5am)	0	0	0	5	5	5	Off	Off	Off	4	6	6	0	0	0
6 (5-6am)	0	0	0	5	5	5	Off	Off	Off	4	6	6	0	0	0
7 (6-7am)	0	0	0	5	5	5	On	On	Off	4	7	7	0	0	0
8 (7-8am)	10	10	0	20	10	5	On	On	Off	15	20	10	12	9	0
9 (8-9am)	20	20	0	50	30	10	On	On	On	23	24	12	22	21	0
10 (9-10am)	50	50	10	85/90	55/60	10	On	On	On	32	27	14	64	56	11
11 (10-11am)	50	60	20	85/90	85/90	40	On	On	On	41	42	29	74	66	13
12 (11-12pm)	70	80	20	85/90	85/90	40	On	On	On	57	54	31	68	68	35
13 (12-1pm)	70	80	40	85/90	85/90	55/60	On	On	On	62	59	36	68	68	37
14 (1-2pm)	70	80	40	85/90	85/90	55/60	On	On	On	61	60	36	71	69	37
15 (2-3pm)	70	80	40	85/90	85/90	55/60	On	On	On	50	49	34	72	70	39
16 (3-4pm)	80	80	40	85/90	85/90	55/60	On	On	On	45	48	35	72	69	41
17 (4-5pm)	70	80	40	85/90	85/90	55/60	On	On	On	46	47	37	73	66	38
18 (5-6pm)	50	60	20	85/90	85/90	40	On	On	Off	47	46	34	68	58	34
19 (6-7pm)	50	20	10	55/60	50	20	On	On	Off	42	44	25	68	47	3

Hour of Day (time)	Schedule for Occupancy <i>Percent of Maximum Load</i>			Schedule for Lighting <sup>b</sup> / Receptacle <i>Percent of Maximum Load</i>			Schedule for HVAC System			Schedule for Service Hot Water <i>Percent of Maximum Load</i>			Schedule for Elevator <i>Percent of Maximum Load</i>		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
20 (7-8pm)	30	20	0	55/60	30	5	On	On	Off	34	36	27	58	43	0
21 (8-9pm)	30	20	0	50	30	5	On	On	Off	33	29	21	54	43	0
22 (9-10pm)	0	10	0	20	10	5	Off	On	Off	23	22	16	0	8	0
23 (10-11pm)	0	0	0	5	5	5	Off	Off	Off	13	16	10	0	0	0
24 (11-12am)	0	0	0	5	5	5	Off	Off	Off	8	13	6	0	0	0
Total/Day	750	750	280	1060/1115	940/985	500/525	1500	1600	900	662	690	459	844	761	288
Total/Week		46.30	hours		67.40/70.85	hours		100	hours		44.59	hours		52.69	hours
Total/Year		2414	hours		3505/3694	hours		5214	hours		2325	hours		2747	hours

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2.

NEW SECTION

**WAC 51-11C-71039 Table B103(9)—School and warehouse occupancies.**

**Table B103(9)  
School Occupancy<sup>a</sup>**

Hour of Day (time)	Schedule for Occupancy <i>Percent of Maximum Load</i>			Schedule for Lighting <sup>b</sup> / Receptacle <i>Percent of Maximum Load</i>			Schedule for HVAC System			Schedule for Service Hot Water <i>Percent of Maximum Load</i>			Schedule for Elevator <i>Percent of Maximum Load</i>		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	Off	Off	Off	5	3	3	0	0	0
2 (1-2am)	0	0	0	5	5	5	Off	Off	Off	5	3	3	0	0	0
3 (2-3am)	0	0	0	5	5	5	Off	Off	Off	5	3	3	0	0	0
4 (3-4am)	0	0	0	5	5	5	Off	Off	Off	5	3	3	0	0	0
5 (4-5am)	0	0	0	5	5	5	Off	Off	Off	5	3	3	0	0	0
6 (5-6am)	0	0	0	5	5	5	Off	Off	Off	5	3	3	0	0	0
7 (6-7am)	0	0	0	5	5	5	Off	Off	Off	5	3	3	0	0	0
8 (7-8am)	5	0	0	30	5	5	On	Off	Off	10	3	3	0	0	0
9 (8-9am)	75	10	0	60/85	15	5	On	On	Off	34	3	5	30	0	0
10 (9-10am)	90	10	0	65/95	15	5	On	On	Off	60	5	5	30	0	0
11 (10-11am)	90	10	0	65/95	15	5	On	On	Off	63	5	5	30	0	0
12 (11-12pm)	80	10	0	65/95	15	5	On	On	Off	72	5	5	30	0	0
13 (12-1pm)	80	10	0	55/80	15	5	On	On	Off	79	5	5	30	0	0
14 (1-2pm)	80	0	0	55/80	5	5	On	Off	Off	83	3	5	30	0	0
15 (2-3pm)	80	0	0	55/80	5	5	On	Off	Off	61	3	3	30	0	0
16 (3-4pm)	45	0	0	50/70	5	5	On	Off	Off	65	3	3	15	0	0
17 (4-5pm)	15	0	0	35/50	5	5	On	Off	Off	10	3	3	0	0	0
18 (5-6pm)	5	0	0	35/50	5	5	On	Off	Off	10	3	3	0	0	0
19 (6-7pm)	15	0	0	35	5	5	On	Off	Off	19	3	3	0	0	0
20 (7-8pm)	20	0	0	35	5	5	On	Off	Off	25	3	3	0	0	0
21 (8-9pm)	20	0	0	35	5	5	On	Off	Off	22	3	3	0	0	0
22 (9-10pm)	10	0	0	30	5	5	On	Off	Off	22	3	3	0	0	0
23 (10-11pm)	0	0	0	5	5	5	Off	Off	Off	12	3	3	0	0	0
24 (11-12am)	0	0	0	5	5	5	Off	Off	Off	9	3	3	0	0	0

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting <sup>b/</sup> Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
Total/Day	710	50	0	750/990	170	120	1500	500	0	691	80	84	285	0	0
Total/Week	36.00 hours			40.40/52.40 hours			80.00 hours			36.19 hours			14.25 hours		
Total/Year	1877 hours			2101/2732 hours			4171 hours			1887 hours			743 hours		

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2.

**Table B103(10)**  
**Warehouse Occupancy<sup>a</sup>**

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting <sup>b/</sup> Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	Off	Off	Off	2	2	2	0	0	0
2 (1-2am)	0	0	0	5	5	5	Off	Off	Off	2	2	2	0	0	0
3 (2-3am)	0	0	0	5	5	5	Off	Off	Off	2	2	2	0	0	0
4 (3-4am)	0	0	0	5	5	5	Off	Off	Off	2	2	2	0	0	0
5 (4-5am)	0	0	0	5	5	5	Off	Off	Off	5	2	2	0	0	0
6 (5-6am)	0	0	0	5	5	5	Off	Off	Off	7	2	2	0	0	0
7 (6-7am)	0	0	0	5	5	5	Off	Off	Off	7	2	2	0	0	0
8 (7-8am)	15	0	0	25/40	5	5	On	Off	Off	10	2	2	0	0	0
9 (8-9am)	70	20	0	45/70	8	5	On	On	Off	30	6	2	0	0	0
10 (9-10am)	90	20	0	55/90	24	5	On	On	Off	36	12	2	0	0	0
11 (10-11am)	90	20	0	55/90	24	5	On	On	Off	36	12	2	30	0	0
12 (11-12pm)	90	20	0	55/90	24	5	On	On	Off	46	17	2	0	0	0
13 (12-1pm)	50	10	0	50/80	5	5	On	On	Off	57	4	4	0	0	0
14 (1-2pm)	85	10	0	55/90	5	5	On	On	Off	43	4	4	0	0	0
15 (2-3pm)	85	10	0	55/90	5	5	On	On	Off	38	2	2	0	0	0
16 (3-4pm)	85	10	0	55/90	5	5	On	On	Off	40	2	2	40	0	0
17 (4-5pm)	20	0	0	55/90	5	5	On	Off	Off	30	2	2	0	0	0
18 (5-6pm)	0	0	0	30	5	5	Off	Off	Off	18	2	2	0	0	0
19 (6-7pm)	0	0	0	5	5	5	Off	Off	Off	3	2	2	0	0	0
20 (7-8pm)	0	0	0	5	5	5	Off	Off	Off	3	2	2	0	0	0
21 (8-9pm)	0	0	0	5	5	5	Off	Off	Off	3	2	2	0	0	0
22 (9-10pm)	0	0	0	5	5	5	Off	Off	Off	3	2	2	0	0	0
23 (10-11pm)	0	0	0	5	5	5	Off	Off	Off	3	2	2	0	0	0
24 (11-12am)	0	0	0	5	5	5	Off	Off	Off	3	2	2	0	0	0
Total/Day	680	120	0	600/915	180	120	1000	800	0	429	91	52	70	0	0
Total/Week	35.20 hours			33.00/48.75 hours			58.00 hours			22.88 hours			3.50 hours		
Total/Year	1835 hours			1716/2542 hours			3024 hours			1193 hours			182 hours		

Wk = Weekday

<sup>a</sup>Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5 percent emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0 percent when occupancy is 0 percent. **These values may be used only if actual schedules are not known.**

<sup>b</sup>Lighting profiles are modified to reflect the requirement for occupancy sensors in Section C405.2.

NEW SECTION

**WAC 51-11C-80000 Appendix C—Exterior design conditions.** As required by Sections C302.2 and R302.2, the heating or cooling outdoor design temperatures shall be selected from Table C-1.

NEW SECTION

**WAC 51-11C-80100 Table C-1—Outdoor design temperatures for Washington.**

**Table C-1  
Outdoor Design Temperatures**

<b>Location</b>	<b>Outdoor Design Temp. Heating (°F)</b>	<b>Outdoor Design Temp. Cooling (°F)</b>
Aberdeen 20 NNE	25	83
Anacortes	24	72
Anatone	-4	89
Auburn	25	84
Battleground	19	91
Bellevue	24	83
Bellingham 2 N	19	78
Blaine	17	73
Bremerton	29	83
Burlington	19	77
Chehalis	21	87
Chelan	10	89
Cheney	4	94
Chesaw	-11	81
Clarkston	10	94
Cle Elum	1	91
Colfax 1 NW	2	94
Colville AP	-2	92
Concrete	19	83
Connell 4 NNW	6	100
Cougar 5 E	25	93
Dallesport AP	14	99
Darrington RS	13	85
Davenport	5	92
Edmonds	24	82
Ellensburg AP	2	90
Elma	24	88
Ephrata AP	7	97
Everett Paine AFB	21	79
Forks 1 E	23	81
Glacier RS	13	82
Glenoma (Kosmos)	18	89
Goldendale	7	94

<b>Location</b>	<b>Outdoor Design Temp. Heating (°F)</b>	<b>Outdoor Design Temp. Cooling (°F)</b>
Grays River Hatchery	24	86
Greenwater	1.4	84
Grotto	21	84
Hoquiam AP	26	79
Inchelium 2 NW	0	92
John Day Dam	19	100
Kent	21	85
Kirkland	17	83
La Grande	23	88
Leavenworth	-3	93
Little Goose Dam	22	101
Long Beach 3 NNE	25	77
Longview	24	87
Lower Granite Dam	14	98
Lower Monument Dam	18	103
Marysville	23	79
Metaline Falls	-1	89
Methow 2 W	1	89
Nespelem 2 S	-4	93
Newhalem	19	89
Newport	-5	92
Northport	2	92
Oak Harbor	16	74
Odessa	7	100
Olga 2 SE	24	71
Olympia, AP	17	85
Omak 2 NW	3	90
Oroville	5	93
Othello	9	98
Packwood	16	90
Plain	-3	89
Pleasant View	16	98
Pomeroy	3	95
Port Angeles	28	75
Port Townsend	25	76
Prosser	12	97
Puyallup	19	86
Quilcene 2 SW	23	83
Quinalt RS	25	84
Rainier, Longmire	15	85
Paradise RS	8	71
Raymond	28	81



Location	Outdoor Design Temp. Heating (°F)	Outdoor Design Temp. Cooling (°F)
Redmond	17	83
Republic	-9	87
Richland	11	101
Ritzville	6	99
Satus Pass	10	90
Seattle: Sea-Tac AP	24	83
Sedro Woolley 1 E	19	78
Sequim	23	78
Shelton	23	85
Smyrna	8	102
Snohomish	21	81
Snoqualmie Pass	6	80
Spokane AP	4	92
Spokane CO	10	96
Stampede Pass	7	76
Stehekin 3 NW	12	85
Stevens Pass	6	77
Tacoma CO	29	82
Tatoosh Island	31	63
Toledo AP	17	84
Vancouver	22	88
Vashon Island	28	78
Walla Walla AP	6	96
Waterville	1	88
Wellpinit	1	93
Wenatchee CO	10	92
Whidbey Island	11	71
Willapa Harbor	26	81
Wilson Creek	3	96
Winthrop 1 WSW	-12	91
Yakima AP	11	94

**ABBREVIATIONS:**

AFB Air Force Base  
 AP Airport  
 CO City Office  
 RS Ranger Station  
 Typical: "4(miles)NE"

**WSR 12-16-089**  
**PROPOSED RULES**  
**BUILDING CODE COUNCIL**

[Filed July 31, 2012, 3:43 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-03-104.

Title of Rule and Other Identifying Information: Adoption and amendment of the 2012 International Building Code (IBC), chapter 51-50 WAC.

Hearing Location(s): Center Place Event Center, 2426 North Discovery Place, Spokane Valley, WA 99216, on September 14, 2012, at 10 a.m.; and at the DES Presentation Room, 1500 Jefferson S.E., Olympia, WA 98504, on September 21, 2012, at 10 a.m.

Date of Intended Adoption: November 9, 2012.

Submit Written Comments to: Ray Allshouse, Chair, State Building Code Council (SBCC), P.O. Box 41449, Olympia, WA 98504-41449 [98504-1449], e-mail sbcc@ga.wa.gov, fax (360) 586-9088, by September 21, 2012.

Assistance for Persons with Disabilities: Contact Peggy Bryden by September 7, 2012, (360) 407-9280.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules adopt the most recently published edition of the IBC with proposed amendments (chapter 51-50 WAC).

These rules replace the 2009 IBC and existing amendments (chapter 51-50 WAC).

**Summary of Changes to Existing Rules:**

1. The 2012 IBC contains approximately one hundred sixty significant changes compared to the 2009 IBC.

2. Chapter 51-50 WAC currently includes seventy-five amendments to the IBC.

3. Under the proposed modifications to chapter 51-50 WAC, forty-nine existing amendments will be retained, with some modification to twenty-three of those.

4. Chapter 51-50 WAC will delete sixteen existing amendments that are no longer necessary; three new amendments will be adopted.

5. WAC 51-50-0420 will change requirements for adult family homes.

6. WAC 51-50-0509 allows consistency with the National Electrical Code for issues related to dry transformers.

7. Issues related to carbon monoxide detection devices are modified in Sections 908.7 and 908.7.1.

8. Issues related to shafts and vertical openings are covered in Sections 712 and 1009.

9. WAC 51-50-1203 provides consistency with the IBC for provisions related to unvented attic spaces.

10. WAC 51-50-1403 regarding exterior walls will allow for an exception to requirements for vertical and lateral flame propagation.

11. WAC 51-50-1607 - Table 1607.1 regarding distribution of live loads adds ice skating rinks and roller skating rinks to allowable "recreational uses."

12. WAC 51-50-2107 modifies lap splice lengths to address calculation inconsistencies in the IBC.

13. WAC 51-50-2900 will adopt the IBC Chapter 29 with some modifications, and delete the current state amendment.

The remaining changes are in response to editorial changes or reorganizational moves in the 2012 IBC.

## PROPOSED CHANGES TO THE 2012 IBC: CHAPTER 51-50 WAC

	<b>Section</b>	<b>Chapter Title</b>	<b>Notes/Purpose</b>
	003	International Building Code	References the appendices.
2	005	IBC requirements for barrier-free accessibly [accessability]	References ICC A117.1-2009 requirements.
3	007	Exceptions	Code not applicable in certain structures.
4	008	Implementation	Effective date July 1, 2013.
5	202	Definitions	Provides definitions of various terms.
6	305	Educational Group E	Provisions for family home child care.
7	308	Institutional Group I	Provisions for certain licensed care facilities.
8	310	Residential Group R	Provisions for various residential structures .
9	403	High rise buildings	Requirements for fire safety smoke enclosures and fire service access elevators.
10	407	Group I-2	Layout of care suites in institutional settings.
11	420	Groups I-1, R-1, R-2, R-3	Changes to adult family home safety requirements.
12	422	Ambulatory health care	Amendment deleted/section reserved.
13	504	Height	Requirements for stair enclosure pressurization.
14	506	Building area modifications	Clarification on basements exception.
15	509	Incidental uses	Transformer provisions.
16	708	Shaft enclosures	Amendment deleted/section reserved.
17	710	Smoke barriers	Amendment deleted/section reserved.
18	902	Definitions	Amendment deleted/section reserved.
19	903	Automatic sprinkler systems	Provides certain exceptions in Groups E and R.
20	908	Emergency alarm systems	Adds Group I and clarifies requirements for CO alarms in residential settings.
21	909	Smoke control systems	Changes requirement for elevator shaft pressurization and adds provisions for hoistway venting and machine rooms.
22	1005	Egress width	Amendment deleted/section reserved.
23	907	Fire alarm and detection systems	Specifies requirements for licensed boarding homes.
24	908	Emergency alarm systems	Specifies requirements/exceptions for CO alarms.
25	909	Elevator hoistway pressurization alternative	Pressurization system requirements.
26	915	Alerting systems	Sets standard for alerting systems.
27	1007	Accessible means of egress	Guidelines for egress in accessible parking spaces.
28	1008	Doors, gates and turnstiles	Requirements for locks and latches in Group I-2.
29	1009	Stairways and handrails	Sets requirements/exceptions for certain stairways.
30	1010	Ramps	Provides exceptions for ramp accessibility.
31	1014	Exit access	Amendment deleted/section reserved.
32	1018	Corridors	Amending references re: Corridor continuity.
33	1021	Number of exits and exit configurations	Allows an exception for travel distance where landing platforms for helistops are in place.

34	1101	General	Modifying provisions for accessibility per changes in ANSI A117.1.
35	1106	Parking and passenger loading facilities	Deletes accessible parking requirements in I-2.
36	1107	Dwelling units and sleeping units	Clarifies requirement for location of Type A units.
37	1203	Ventilation	Modifies requirements and exceptions for ventilation in attic spaces.
38	1204	Temperature control	Clarifies requirements for solid fuel burning devices.
39	1208	Interior space dimensions	Room area requirement clarifications.
40	1210	Toilet and bathroom requirements	Requirements moved to 2902.3.1.1.
41	1403	Performance requirements	Modifies exceptions for weather protection and adds requirements for vertical and lateral flame propagation.
42	1405	Installation of wall coverings	Amendment deleted/section reserved.
43	1609	Wind loads	Amendment deleted/section reserved.
44	1702	Definitions	Refers certain definitions to Chapter 2.
45	1705	Required verification and inspection	Modifies concrete construction requirements.
46	1710	Preconstruction load tests	Was previously Section 1715.
47	1715	Preconstruction load tests	Moved to Section 1710.
48	1901	General	Provisions regarding anchoring to concrete.
49	1903	Specifications for tests and materials	Provisions for standards and testing of concrete.
50	1904	Durability requirements	Identifying standards for concrete construction.
51	1905	Modifications to ACI 318	Deletes definition of wall pier.
52	1908	Anchorage to concrete—Allowable stress design	Did not adopt this section.
53	1909	Anchorage to concrete—Strength design	Did not adopt this section.
54	2104	Construction	Amendment deleted/section reserved.
55	2107	Allowable stress design	Provides general requirements and specific formulas.
56	2108	Strength design of masonry	Amendment deleted/section reserved.
57	2111	Masonry fireplaces	Corrects references to WAC.
58	2114	Emission standards	Clarifies referenced standards and requirements for certified fireplace model certification.
59	2900	Plumbing systems	Replaces state amendment with adoption of IBC plumbing systems chapter, with certain modifications.
60	3002	Elevator car to accommodate ambulance stretcher	Minor editorial changes.
61	3108	Telecommunications and broadcast towers	Amendment deleted/section reserved.
62	3401	General	Building official authority clarified re: Dangerous conditions.
63	3411	Accessibility for existing buildings	Regarding modification of toilet or bathing rooms.
64	3500	Referenced standards	Adds new standards for cement.
65	481301	Relocated or moved buildings—General	Requires compliance with current codes except for certain R-3 buildings.
66	481302	Requirements	Did not adopt this section.

Reasons Supporting Proposal: RCW 19.27.031 and 19.27.074.

Statutory Authority for Adoption: RCW 19.27.031 and 19.27.074.

Statute Being Implemented: Chapters 19.27 and 34.05 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: The council is seeking comments on the issues proposed in the rules shown below.

Name of Proponent: SBCC, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Tim Nogler, 1500 Jefferson S.E., P.O. Box 41449, Olympia, WA, (360) 9277 [407-9277]; and Enforcement: Local jurisdictions.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

#### Small Business Economic Impact Statement

##### Executive Summary:

**Impact on Small Business:** The SBCC is filing a proposed rule to adopt the updated 2012 edition of the IBC (chapter 51-50 WAC). Since 1985 the SBCC has been responsible to update to new editions of the building code. RCW 19.27.074. The IBC is updated every three years by the International Code Council (ICC). The model code development process of updating code editions by the model code organization involves interest groups within the design and construction industry and from governmental organizations. See [www.iccsafe.org](http://www.iccsafe.org) for more information about the model code development process.

The 2012 IBC contains about one hundred sixty significant changes from the 2009 IBC. According to the *Proposed changes to the 2009 Edition of the IBC*, published by the ICC, less than five percent of the significant amendments result in an increase in cost of construction. The primary effect of the amendments is improvement and clarification of the code. The objective of the amendments is to improve the building regulatory system.

The SBCC appointed a technical advisory group (TAG) to review the 2012 IBC significant changes, the applicability of the existing statewide amendments, and twelve new proposed state amendments. The TAG included all sectors of the construction industry and regulatory community, including small businesses. All TAG meetings are open to the public and small businesses are notified and participate in the review.

The update will result in some cost outlay for some small businesses in construction industries for specific building projects, for a transition period. Other small businesses would see an increase in revenue. The TAG identified specific amendments with a cost impact and in most cases modified the code to reduce the impact while maintaining the intent of the code to provide a safe and accessible building. Where the SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost. The proposed rule includes a definition of small business and provides exceptions for compliance with the updated regulation.

**The Cost Impact on Small Businesses Compared to the Largest Businesses in the State Will Not Be Disproportionate:** The SBCC has found that in a competitive bidding climate, construction costs per square foot will be constant, independent of the size of firm bidding the work. The permit process, including plan review and inspection costs of compliance to businesses in the construction industry will not be affected by adoption of the new edition.

The overall impact would be positive, because a majority of the amendments in the new edition either reduce requirements or provide more clarity, reducing review and approval times. The degree of impact diminishes during the code cycle as rules become familiar and construction practices adjust and are accepted.

The rules are anticipated to be job neutral, although there would be some temporary work for installation jobs for certain trades people.

**Section I: Introduction/Compliance with the Rules:** The proposed rule adopts the 2012 edition of the IBC. The 2009 IBC with state amendments is currently in effect. (Chapter 51-50 WAC).

State amendments to the code address specific issues, for example:

- Washington state facility licensing requirements.
- Added allowable story for wood framed buildings.
- Clarification of egress requirements.
- Correction of engineering standards for concrete.

For a complete list of all state amendments see this link. <http://apps.leg.wa.gov/wac/default.aspx?cite=51-50>.

The amendments add flexibility and clarity to the code and coordinate rules, and represent a savings for small business building owners and operators.

The 2012 edition contains about one hundred sixty significant revisions from the current 2009 Edition of the Building Code. The revisions address primarily editorial changes to clarify the code and reduce the reporting, record-keeping and other compliance requirements. The building code currently in effect requires issuance of a building permit for construction projects, review and approval of plans, and field inspections. The new edition of the Building Code primarily improves the building regulatory process by resolving inconsistencies and problems with previous editions. Where actual experience in installation has demonstrated code requirements add no benefit, the requirements are reduced or deleted.

The 2012 IBC does contain significant modifications, requiring additional expenditure by building owners to maintain compliance. The SBCC identified these new provisions:

1. High rise building fire service access elevators. The 2012 IBC requires an additional fire service access elevator in new high rise construction.
2. Exterior combustible projection protection. The 2012 IBC adds protection requirements for some projections on new buildings.
3. Wired glass. The 2012 IBC requires such glazing to be tested to applicable safety standards.
4. Vertical and lateral flame propagation. The 2012 IBC requires testing for exterior walls containing a combustible water-resistive barrier.
5. Photovoltaic modules/shingles. The 2012 IBC adds guidance for installation of photovoltaic systems.

**Section II: Compliance Costs for Washington Businesses:** Washington businesses will incur costs to purchase new code books and for training.

The 2012 edition of the IBC costs \$88 on CD and \$98.75 for a loose leaf binder. The codes are also available to view on-line at no cost. There is also an on-line subscription service available, at a per user cost.

The costs for compliance with the 2012 IBC are specific to the project and the plan.

**(1) 2012 IBC Section 403.6.1 High Rise Building Fire Service Access Elevators:** The change to this section of the 2012 IBC requires a minimum of two (instead of one) 3500

pound weight capacity fire service access elevators in high rise buildings with an occupied floor more than one hundred twenty feet above the lowest level of fire department access. The intent of this code change is to provide a compromise that addresses the fire service access elevators that are required in a building based on the size and capacity of the elevators and not strictly the number of elevators. Assuming an upgrade to a 3500 pound elevator, additional costs may include an increase in shaft dimension, and addition of fire service controls. Labor costs would be comparable to installation of a standard size elevator cab.

The total estimated additional cost for an upgrade to a stretcher cab in a ten story building would be \$50,000, assuming the following cost factors:

Foundation/pit	\$12,000
Cab and associated motor	\$8,000
Additional shaft wall (10 stories)	\$20,000
Additional HVAC (shaft pressurization/elect., etc.)	\$10,000

**(2) 2012 IBC Section 705.2.3 Exterior Combustible Projection Protection:** Adds protection requirements for some projections where some openings are otherwise required to be protected. Some additional materials and labor would be required to install a fire protective layer on some [some] projections.

**(3) 2012 IBC Section 716.6.4 Wired Glass:** The 2012 IBC deletes an exception previously allowed for wired glass in fire rated assemblies. The new code requires that wired glass be tested to applicable safety standards, where installed in fire assemblies in hazardous locations. This will impact the sales of untested wire glass product.

**(4) 2012 IBC Section 1403.5 Vertical and Lateral Flame Propagation:** The 2012 IBC requires a flame-spread test of exterior wall assemblies where combustible water-resistive barriers are used in Type I, II, III and IV buildings over forty feet in height. The proposed rule provides an exception to mitigate the potential impact of this provision.

**2012 IBC Section 1507.17 Photovoltaic Modules/Shingles:** The 2012 IBC adds guidance for installation of photovoltaic systems.

**Section III: Analysis of Proportionate Impact on Small Businesses:**

**the Impact on Small Businesses Compared to the Largest Businesses in the State Will Not Be Disproportionate:** The cost of compliance is a proportionate incremental cost, in relation to hours of labor, or costs per employee. The incremental cost of meeting the 2012 IBC, will have a proportionate impact on building and construction businesses. Building projects tend to be unique to type of construction, building type, building site, as well as size of the project. Costs for design and construction will be evenly distributed among the general contractors and subcontractors. Further, construction industry businesses fit primarily into the category of small business. Where an industry has a significant number of large businesses, the costs of compliance for large businesses are proportional to the number of employees in any size business.

**Section IV: Small Business Involvement and Impact Reduction Efforts:**

**Actions Taken to Reduce the Impact of the Rule on Small Businesses:** The TAG identified specific amendments with a cost impact and modified the code to reduce the impact while maintaining the intent of the code. Where the SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost. The proposed rule includes a definition of small business and provides exceptions for compliance with the updated regulation.

**Involvement of Small Business in the Development of the Proposed Rules:** The SBCC appointed a TAG to represent construction industry businesses and organizations. In accordance with SBCC bylaws, all TAG meetings are open to the public and small businesses are notified and participate in the review.

For a directory of TAG members see <https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=117>.

**Section V: Number of Affected Businesses in Washington: Chapter 51-50 WAC:**

Type of Business	NAICS CODE #	# IN STATE (UP TO 49 Employees)	# IN STATE (50 OR MORE Employees)
Homebuilders	236115	3985	12
Multifamily Housing Construction	236116	77	0
Residential Remodelers	236118	3468	1
Industrial Building Construction	236210	89	6
Commercial and Institutional Building Construction	236220	1305	40
Poured Concrete Foundation and Structure Contractor	238110	1028	3
Roofing Contractors	238160	973	7
Wood Window and Door Manufacturing	321911	39	2
Architects	541310	602	16
Engineers	541330	1665	96

**Section VI: Jobs Created or Lost as a Result of These Rules:** The adoption of the latest code edition is not expected to significantly impact the number of jobs in the construction industry. These rules are likely to be job neutral overall, i.e., they will not result in any job gains or losses. The scheduled effective date of the new edition is July 1, 2013. Building permits issued prior to that date will be vested under the 2009 Building Code. Permits issued for projects under the 2012 code edition will start with the 2014 construction season.

The construction industry continues to experience slow growth. Employment in all sectors impacts activity in the construction sector. According to *Washington Occupational Employment Projections*, posted by the department of employment security, the total number of construction trade workers statewide was 124,612 in the second quarter of 2011. There is an estimated increase of 0.6% by the second quarter of 2013, for a total number of construction trade workers of

126,093. Specialty trades show a similar pattern of slow growth by the second quarter of 2013:

• Carpenters	33,821	+0.4%
• Construction laborers	16,592	+0.5%
• Plumbers, pipefitters	8,885	+0.3%

Some sectors are expected to experience slightly more positive growth. The number of engineers employed in Washington is expected to grow in this same period about 2.2 percent to 54,769. The long-term projection shows a 2.3 percent growth in the construction industry from 2010 to 2015, adding 16,800 jobs for a total of 156,900 employed in the industry by 2015.

A copy of the statement may be obtained by contacting Tim Nogler, P.O. Box 41449, Olympia, WA 98504-1449, phone (360) 407-9277, fax (360) 586-9088, e-mail tim.nogler@des.wa.gov. See the small business economic impact statement by following this link: 2012 Building Code SBEIS. The SBCC is not one of the agencies identified as required to prepare a school district impact statement.

A cost-benefit analysis is not required under RCW 34.05.328. The SBCC is not one of the agencies identified as required to prepare an analysis.

July 31, 2012  
C. Ray Allshouse  
Council Chair

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-003 International Building Code.** The ((2009)) 2012 edition of the *International Building Code*, including Appendix E, published by the International Code Council is hereby adopted by reference with the exceptions noted in this chapter of the Washington Administrative Code.

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-005 International Building Code requirements for barrier-free accessibility.** Chapter 11 and other International Building Code requirements for barrier-free access, including ICC ((A117.1-2003)) A117.1-2009 and Appendix E, are adopted pursuant to chapters 70.92 and 19.27 RCW.

Pursuant to RCW 19.27.040, Chapter 11 and requirements affecting barrier-free access shall not be amended by local governments.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-007 Exceptions.** The exceptions and amendments to the International Building Code contained in the provisions of chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means

a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under chapter 70.114A RCW or chapter 37, Laws of 1998 (SB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.

Codes referenced which are not adopted through RCW 19.27.031 or chapter 19.27A RCW shall not apply unless specifically adopted by the authority having jurisdiction. The ((2009)) 2012 International Existing Building Code is included in the adoption of this code in Section 3401.5 and amended in WAC 51-50-480000.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-008 Implementation.** The International Building Code adopted under chapter 51-50 WAC shall become effective in all counties and cities of this state on July 1, ((2010)) 2013.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0200 Chapter 2—Definitions.**

**SECTION 202—DEFINITIONS.**

**ADULT FAMILY HOME.** ((See Section 310.2.)) A dwelling, licensed by Washington state, in which a person or persons provide personal care, special care, room and board to more than one but not more than six adults who are not related by blood or marriage to the person or persons providing the services.

((~~AIR PERMEABLE~~)) **AIR-IMPERMEABLE INSULATION.** An insulation having an air permeance equal to or less than 0.02 L/s-m<sup>2</sup> at 75 Pa pressure differential tested in accordance with ASTM E2178 or ASTM E283.

**CHILD ((~~DAY~~)) CARE.** ((See Section 310.2.)) For the purposes of these regulations, is the care of children during any period of a 24-hour day.

**CHILD ((~~DAY~~)) CARE ((~~HOME~~)), FAMILY HOME.** ((See Section 310.2.)) A child care facility, licensed by Washington state, located in the dwelling of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home.

**EXIT ACCESS RAMP.** An interior ramp, other than an interior exit ramp, that is designed either exclusively for circulation, or to satisfy the requirements in Chapter 10 for travel dis-

tance, common path of egress travel, number of exit access doorways, arrangement, or number of exits.

**EXIT ACCESS STAIRWAY.** An interior stairway, other than an interior exit stairway, that is designed either exclusively for circulation, or to satisfy the requirements in Chapter 10 for travel distance, common path of egress travel, number of exit access doorways, arrangement, or number of exits.

**HOSPICE CARE CENTER.** A building or portion thereof used on a 24-hour basis for the provision of hospice services to terminally ill inpatients.

**NIGHTCLUB.** An A-2 Occupancy use under the 2006 International Building Code in which the aggregate area of concentrated use of unfixed chairs and standing space that is specifically designated and primarily used for dancing or viewing performers exceeds three hundred fifty square feet, excluding adjacent lobby areas. "Nightclub" does not include theaters with fixed seating, banquet halls, or lodge halls.

**PORTABLE SCHOOL CLASSROOM.** ((See Section 902.1-)) A structure, transportable in one or more sections, which requires a chassis to be transported, and is designed to be used as an educational space with or without a permanent foundation. The structure shall be trailerable and capable of being demounted and relocated to other locations as needs arise.

**RESIDENTIAL CARE/ASSISTED LIVING FACILITIES.** See Section 310.2. This definition is not adopted.

**SMALL BUSINESS.** Any business entity (including a sole proprietorship, corporation, partnership or other legal entity) which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has fifty or fewer employees.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0305 Section 305—Educational Group E.**

~~((**305.2 Day Care.** The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than five children older than 2 1/2 years of age, shall be classified as a Group E Occupancy.~~

EXCEPTION: Family child day care homes licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3.)

**305.2.4 Family home child care.** Family home child care licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3 or shall comply with the *International Residential Code*.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0308 Section 308—Institutional Group I.**

~~((**308.1 Institutional Group I.** Institutional Group I Occupancy includes, among others, the use of a building or struc-~~

~~ture, or a portion thereof, in which people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.~~

~~**308.2 Group I-1.** This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:~~

~~Residential board and care facilities~~

~~Assisted living facilities~~

~~Halfway houses~~

~~Group homes~~

~~Congregate care facilities~~

~~Social rehabilitation facilities~~

~~Alcohol and drug centers~~

~~Convalescent facilities~~

~~A facility such as the above with five or fewer persons and adult family homes licensed by Washington state shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2.~~

~~A facility such as the above, providing licensed care to clients in one of the categories listed in Section 310.1 licensed by Washington state shall be classified as Group R-2.~~

~~**308.3) 308.2 Definitions.** The following terms are defined in Chapter 2:~~

~~24-HOUR CARE.~~

~~Custodial Care.~~

~~Detoxification Facilities.~~

~~Foster Care Facilities.~~

~~HOSPICE CARE CENTER.~~

~~Hospitals and psychiatric hospitals.~~

~~Incapable of self-preservation.~~

~~Medical care.~~

~~Nursing homes.~~

~~**308.3.1 Five or fewer persons receiving care.** A facility such as the above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*.~~

~~**308.3.2 Licensed care facility.** A facility such as the above, providing licensed care to clients in one of the categories listed in Section 310.1 licensed by Washington state shall be classified as Group R-2.~~

~~**308.3.3 Adult family homes.** Adult family homes licensed by Washington state shall be classified as Group R-3 or shall comply with the *International Residential Code*.~~

~~**308.4 Group I-2.** This occupancy shall include buildings and structures used for *medical* ((-surgical, psychiatric, nursing or~~

~~custodial care for)) care on a 24-hour basis for more than five persons who are ((not capable)) incapable of self-preservation. This group shall include, but not be limited to, the following:~~

~~((Child)) Foster care facilities,  
Detoxification facilities,  
Hospice care centers,  
Hospitals,  
((Mental hospitals))  
Nursing homes,  
Psychiatric hospitals.~~

~~((A facility such as the above providing licensed care to clients in one of the categories listed in Section 310.1 licensed by Washington state shall be classified as Group R-2.~~

~~**308.3.1 Definitions.** The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.~~

~~**CHILD CARE FACILITIES.** Facilities that provide care on a 24-hour basis to more than five children, 2 1/2 years of age or less, shall be classified as Group I-2.~~

~~**DETOXIFICATION FACILITY.** Facilities that serve patients who are provided treatment for substance abuse on a 24-hour basis and who are incapable of self-preservation or who are harmful to themselves or others.~~

~~**HOSPITALS AND MENTAL HOSPITALS.** A building or portion thereof used on a 24-hour basis for the medical, psychiatric, obstetrical or surgical treatment of inpatients who are incapable of self-preservation.~~

~~**NURSING HOMES.** Nursing homes are long-term care facilities on a 24-hour basis, including both intermediate care facilities and skilled nursing facilities, serving more than five persons and any of the persons are incapable of self-preservation.~~

~~**HOSPICE CARE CENTER.** A building or portion thereof used on a 24-hour basis for the provision of hospice services to terminally ill inpatients.~~

~~**308.5.2 Child care facility.** A facility that provides supervision and personal care on a less than 24-hour basis for more than five children 2 1/2 years of age or less shall be classified as Group I-4.~~

~~EXCEPTIONS:~~

- ~~1. A child day-care facility that provides care for more than five but no more than 100 children 2 1/2 years or less of age, where the rooms in which the children are cared for are located on a level of exit discharge serving such rooms and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.~~
- ~~2. Family child day care homes licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3.))~~

~~**308.4.1 Five or fewer persons receiving care.** A facility such as the above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the International Residential Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or with Section P2904 of the International Residential Code.~~

~~**308.4.2 Licensed care facility.** A facility such as the above providing licensed care to clients in one of the categories listed in Section 310.1 licensed by Washington state shall be classified as Group R-2.~~

~~**308.6.5 Family home child care.** Family home child care licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3 or shall comply with the International Residential Code.~~

~~AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)~~

~~**WAC 51-50-0310 Section 310—Residential Group R.**~~

~~**310.1 Residential Group R.** Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the International Residential Code ((in accordance with Section 101.2. Residential occupancies shall include the following:)).~~

~~**310.2 Definitions.** The following terms are defined in Chapter 2:~~

~~ADULT FAMILY HOME.  
BOARDING HOUSE.  
CHILD CARE.  
CHILD CARE, FAMILY HOME.  
CONGREGATE LIVING FACILITIES.  
DORMITORY.  
GROUP HOME.  
PERSONAL CARE SERVICE.  
TRANSIENT.~~

~~**310.3 Residential Group R-1.** Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:~~

~~Boarding houses (transient) with more than 10 occupants  
Congregate living facilities (transient) with more than 10 occupants  
Hotels (transient)  
Motels (transient)  
((Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.))~~

~~**310.4 Residential Group R-2.** Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:~~

~~Apartment houses  
Assisted living facilities as licensed by Washington state under chapter 388-78A WAC  
Boarding houses ((not transient)) nontransient) with more than 16 occupants  
((Boarding homes as licensed by Washington state under chapter 388-78A WAC))  
Congregate living facilities (nontransient) with more than 16 occupants  
Convents  
Dormitories  
Fraternities and sororities  
Hotels (nontransient)  
Live/work units~~



Monasteries

Motels (nontransient)

Residential treatment facilities as licensed by Washington state under chapter 246-337 WAC

Vacation timeshare properties

((Congregate living facilities with sixteen or fewer occupants are permitted to comply with the construction requirements for Group R-3.))

**310.5 Residential Group R-3.** Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, ((R-4)) or I, including:

Buildings that do not contain more than two *dwelling units*((Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours)).

((Child)) Boarding houses (nontransient) with 16 or fewer occupants.

Boarding houses (transient) with 10 or fewer occupants.

Care facilities that provide accommodations for five or fewer persons ((of any age for less than 24 hours)) receiving care.

Congregate living facilities (nontransient) with sixteen or fewer ((persons)) occupants.

((Adult care within a single family home, adult family homes and family child day care homes are permitted to comply with the International Residential Code.

Foster family care homes licensed by Washington state are permitted to comply with the *International Residential Code*, as an accessory use to a dwelling, for six or fewer children including those of the resident family.))

Congregate living facilities (transient) with 10 or fewer occupants.

**310.5.1 Care facilities within a dwelling.** Care facilities for five or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the *International Residential Code* provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*.

**310.5.2 Adult family homes, family home child care.** Adult family homes and family home child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.

**310.5.3 Foster family care homes.** Foster family care homes licensed by Washington state are permitted to comply with the *International Residential Code*, as an accessory use to a dwelling, for six or fewer children including those of the resident family.

R-4 classification is not adopted. Any reference in this code to R-4 does not apply.

((**310.2 Definitions.** The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

**ADULT FAMILY HOME.** A dwelling, licensed by Washington state, in which a person or persons provide personal care, special care, room and board to more than one but not more than

six adults who are not related by blood or marriage to the person or persons providing the services.

**BOARDING HOUSE.** A building arranged or used for lodging for compensation, with or without meals, and not occupied as a single family unit.

**CHILD DAY CARE.** For the purposes of these regulations, is the care of children during any period of a 24 hour day.

**CHILD DAY CARE HOME, FAMILY.** A child day care facility, licensed by Washington state, located in the dwelling of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home.

**CONGREGATE LIVING FACILITIES.** A building or part thereof that contains sleeping units where residents share bathroom and/or kitchen facilities.

**DORMITORY.** A space in a building where group sleeping accommodations are provided in one room, or in a series of closely associated rooms, for persons not members of the same family group, under joint occupancy and single management, as in college dormitories or fraternity houses.

**PERSONAL CARE SERVICE.** The care of residents who do not require chronic or convalescent medical or nursing care. Personal care involves responsibility for safety of the resident while inside the building.

**RESIDENTIAL CARE/ASSISTED LIVING FACILITIES.** This definition is not adopted.

**TRANSIENT.** Occupancy of a dwelling or sleeping unit for not more than 30 days.))

**AMENDATORY SECTION** (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0403 Section 403—High-rise buildings.**

**403.5.4 Smokeproof exit enclosures.** Every required exit stairway serving floors more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access shall ((comply)) be a smokeproof enclosure in accordance with Sections 909.20 and ((1022.9)) 1022.10.

EXCEPTION: Unless required by other sections of this code, portions of such stairways which extend to serve floors below the level of exit discharge need not comply with Sections 909.20 and ((1022.9)) 1022.10 provided the portion of the stairway below is separated from the level of exit discharge with a 1 hour fire barrier.

**403.6.1 Fire service access elevator.** In buildings with an occupied floor more than 120 feet (36576 mm) above the lowest level of fire department vehicle access, no fewer than two fire service access elevators, or all elevators, whichever is less, shall be provided in accordance with Section 3007. Each fire service access elevator shall have a capacity of not less than 3500 pounds (1588 kg).

**AMENDATORY SECTION** (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0407 ((Reserved.)) Group I-2.**

**407.4.3 Group I-2 care suites.** *Care suites* in Group I-2 shall comply with Section 407.4.3.1 through 407.4.3.4 and either Section 407.4.3.5 or 407.4.3.6.

**407.4.3.1 Exit access through care suites.** *Exit access* from all other portions of a building not classified as a *care suite* shall not pass through a *care suite*. In a *care suite* required to have more than one *exit*, one *exit access* is permitted to pass through an adjacent *care suite* provided all of the other requirements of Sections 407.4 and 1014.2 are satisfied.

**407.4.3.2 Separation.** *Care suites* shall be separated from other portions of the building by a smoke partition complying with Section 710. Partitions within suites are not required to be smoke resistant or fire resistance rated unless required by another section of this code.

**407.4.3.3 One intervening room.** For rooms other than sleeping rooms located within a *care suite*, *exit access* travel from the *care suite* shall be permitted through one intervening room where the travel distance to the *exit access* door from the *care suite* is not greater than 100 feet (30,480 mm).

**407.4.3.4 Two intervening rooms.** For rooms other than sleeping rooms located within a *care suite*, *exit access* travel within the *care suite* shall be permitted through two intervening rooms where the travel distance to the *exit access* door from the *care suite* is not greater than 50 feet (15,240 mm).

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

WAC 51-50-0420 Section 420—Groups I-1, R-1, R-2, R-3.

~~((420-4))~~ **420.6 Subdivision of building spaces—Smoke barriers.** Smoke barriers complying with Section ~~((710))~~ 709 shall be installed on all floors ~~((other than the level of exit discharge))~~ of a Group R-2 boarding home or residential treatment facility licensed by Washington state ~~((where a fire-resistance-rated corridor is required by Table 1018.1))~~. The smoke barrier shall subdivide the floor into at least two compartments complying with Section ~~((407-4))~~ 407.5.

**420.7 Adult family homes.** This section shall apply to all newly constructed adult family homes and all existing single-family homes being converted to adult family homes. This section shall not apply to those adult family homes licensed by the state of Washington department of social and health services prior to July 1, 2001.

**420.7.1 Submittal standards.** In addition to the requirements of Section 107, the submittal shall identify the project as a Group R-3 adult family home. A floor plan shall be submitted identifying the means of egress and the components in the means of egress such as stairs, ramps, platform lifts and elevators. The plans shall indicate the rooms used for clients and the sleeping room classification of each room.

**420.7.2 Sleeping room classification.** Each sleeping room in an adult family home shall be classified as one of the following:

1. Type S - Where the means of egress contains stairs, elevators or platform lifts.

2. Type NS1 - Where one means of egress is at grade level or a ramp constructed in accordance with Section 420.7.8 is provided.

3. Type NS2 - Where two means of egress are at grade level or ramps constructed in accordance with Section 420.7.8 are provided.

**420.7.3 Types of locking devices and door activation.** All bedrooms and bathroom doors shall be openable from the outside when locked.

Every closet door shall be readily openable from the inside.

Operable parts of door handles, pulls, latches, locks and other devices installed in adult family homes shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. Pocket doors shall have graspable hardware available when in the closed or open position.

The force required to activate operable parts shall be 5.0 pounds (22.2 N) maximum. Required exit door(s) shall have no additional locking devices. Required exit door hardware shall unlock inside and outside mechanisms when exiting the building allowing reentry into the adult family home without the use of a key, tool or special knowledge.

**420.7.4 Smoke and carbon monoxide alarm requirements.** All adult family homes shall be equipped with smoke and carbon monoxide alarms installed as required in Section R314 and Section R315.1. Alarms shall be installed in such a manner so that the detection device warning is audible from all areas of the dwelling upon activation of a single alarm.

**420.7.5 Escape windows and doors.** Every sleeping room shall be provided with emergency escape and rescue windows as required by Section 1029. No alternatives to the sill height such as steps, raised platforms or other devices placed by the openings will be approved as meeting this requirement.

**420.7.6 Fire apparatus access roads and water supply for fire protection.** Adult family homes shall be served by fire apparatus access roads and water supplies meeting the requirements of the local jurisdiction.

**420.7.7 Grab bar general requirements.** Where facilities are designated for use by adult family home clients, grab bars for water closets, bathtubs and shower stalls shall be installed according to this section.

**420.7.7.1 Grab bar cross section.** Grab bars with a circular cross section shall have an outside diameter of 1 1/4 inches minimum and 2 inches maximum. Grab bars with noncircular cross section shall have a cross section dimension of 2 inches maximum and a perimeter dimension of 4 inches minimum and 4 5/8 inches maximum.

**420.7.7.2 Grab Bar Installation.** Grab bars shall have a spacing of 1 1/2 inches between the wall and the bar. Projecting objects, control valves and bathtub or shower stall enclosure features above, below and at the ends of the grab bar shall have a clear space of 1 1/2 inches to the grab bar.

EXCEPTION # 1: Swing-up grab bars shall not be required to meet the 1 1/2 spacing requirement.

Grab bars shall have a structural strength of 250 pounds applied at any point on the grab bar, fastener, mounting device or supporting structural member. Grab bars shall not be supported directly by any residential grade fiberglass bathing or showering unit. Acrylic bars found in bathing units shall be removed.

Fixed position grab bars, when mounted, shall not rotate, spin or move and have a graspable surface finish.

**420.7.7.3 Grab Bars at Water Closets.** Water closets shall have grab bars mounted on both sides. Grab bars can be a combination of fixed position and swing-up bars. Grab bars shall meet the requirements of Section 420.7.7.

**420.7.7.3.1 Fixed position grab bars.** Fixed position grab bars shall be 36 inches in length and start 12 inches from the rear wall.

**420.7.7.3.2 Swing-up grab bars.** Swing-up grab bars shall be a minimum of 28 inches in length from the rear wall. Grab bars shall mount between 33 inches and 36 inches above floor grade. Centerline distance between grab bars, regardless of type used, shall be between 25 inches minimum and 30 inches maximum.

**420.7.7.4 Grab bars at bathtubs.** Horizontal and vertical grab bars shall meet the requirements of Section 420.7.7.

**420.7.7.4.1 Vertical grab bars.** Vertical grab bars shall be 18 inches long and installed at the control end wall and head end wall. Grab bars shall mount within 4 inches of the exterior of the bath tub edge or within 4 inches within the bath tub. The bottom end of the bar shall start between 36 inches and 42 inches above floor grade.

**EXCEPTION:** The required vertical grab bar can be substituted with a floor to ceiling grab bar meeting the requirements of Section 420.7.7 at the control end and head end entry points.

**420.7.7.4.2 Horizontal grab bars.** Horizontal grab bars shall be provided at the control end, head end, and the back wall within the bathtub area. Grab bars shall be mounted between 33 inches and 36 inches above floor grade. Control end and head end grab bars shall be 24 inches in length. Back wall grab bars shall be 36 inches in length.

**420.7.7.5 Grab bars at shower stalls.** Where shower stalls are provided to meet the requirements for bathing facilities, grab bars shall meet the requirements of Section 420.7.7.

**EXCEPTION:** Shower stalls with permanent built-in seats are not required to have vertical or horizontal grab bars at the seat end wall. A vertical floor to ceiling grab bar shall be installed within 4 inches of the exterior of the shower aligned with the nose of the built-in seat.

**420.7.7.5.1 Vertical grab bars.** Vertical 18 inch grab bars shall be installed at the control end wall and end wall. Vertical bars shall be mounted within 4 inches of the exterior of the shower stall or within 4 inches inside the shower stall. The bottom end of vertical bars mount between 36 inches and 42 inches above floor grade.

**420.7.7.5.2 Horizontal grab bars.** Horizontal grab bars shall be installed on all sides of the shower stall mounted between 33 inches and 36 inches above the floor grade. Hor-

izontal grab bars shall be a maximum of 6 inches from adjacent walls. Horizontal grab bars shall not interfere with shower control valves.

**420.7.8 Ramps.** All interior and exterior ramps, when provided, shall be constructed in accordance with Section 1010 with a maximum slope of 1 vertical to 12 horizontal.

**EXCEPTION:** Where it is technically infeasible to comply with Section 1010, ramps in existing buildings being converted to use as adult family homes shall be permitted to comply with the following:

1. They shall have a maximum slope of 1 unit vertical in 12 units horizontal (8 percent slope).
2. Landings of at least 3 feet by 3 feet (914 mm by 914 mm) shall be provided at the top and bottom of the ramp, where doors open onto the ramp, and where the ramp changes direction.

**420.7.8.1 Handrails for ramps.** Handrails shall be provided for ramps in accordance with Section 1010.9.

**EXCEPTION:** Where it is technically infeasible to comply with Section 1010.9, ramps in existing buildings being converted to use as adult family homes shall be permitted to comply with the following:

1. Handrails shall be installed on both sides of ramps with a rise of more than 6 inches and a slope between 1 vertical to 12 horizontal and 1 vertical and 20 horizontal.
2. Handrail height, measured above the finished surface of the ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).
3. Handrails shall comply with Section 1012.3.
4. Handrails where required on ramps shall be continuous for the full length of the ramp. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1 1/2 inches (38 mm) between the wall and the handrails.

**420.7.9 Stair treads and risers.** Stair treads and risers shall be constructed in accordance with Section 1009.

**EXCEPTION:** Where it is technically infeasible to comply with Section 1009, stair treads and risers in existing buildings being converted to use as adult family homes shall be permitted to comply with the following:

1. The maximum riser height shall be 7 3/4 inches (196 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open risers are permitted provided that the opening between treads does not permit the passage of a 4-inch-diameter (102 mm) sphere. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less.
2. The minimum tread depth shall be 10 inches (254 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).
3. Winder treads shall have a minimum tread depth of 10 inches (254 mm) measured between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline. Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point within the clear width of the stair.

Within any flight of stairs, the largest winder tread depth at the walkline shall not exceed the smallest winder tread by more than 3/8 inch (9.5 mm). Consistently shaped winders at the walkline shall be allowed within the same flight of stairs as rectangular treads and do not have to be within 3/8 inch (9.5 mm) of the rectangular tread depth.

4. The radius of curvature at the nosing shall be no greater than 9/16 inch (14 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) between two stories, including the nosing at the level of floors and landings. Beveling of nosings shall not exceed 1/2 inch (12.7 mm). A nosing is not required where the tread depth is a minimum of 11 inches (279 mm).

**420.7.9.1 Handrails for treads and risers.** Handrails shall be installed on both sides of treads and risers numbering from one riser to multiple risers. Handrails shall comply with Section 1009.15.

**420.7.10 Shower stalls.** Where provided to meet the requirements for bathing facilities, the minimum size of shower stalls for an adult family home shall be 30 inches deep by 48 inches long.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0422 Section 422—(~~Ambulatory health care.~~) Reserved.**

~~((422.1 General. Occupancies classified as ambulatory health care facilities shall comply with the provisions of Sections 422.1 through 422.7 and other applicable provisions of this code by the services provided.~~

~~**422.2 Separation.** Ambulatory health care facilities where four or more care recipients are rendered incapable of self-preservation at any given time shall be separated from adjacent spaces, corridors or tenants with a fire partition installed in accordance with Section 709.~~

~~**422.3 Smoke compartments.** Where the aggregate area of one or more ambulatory health care facility exceeds 10,000 square feet on one story, the story shall be provided with a smoke barrier to subdivide the story into not less than two smoke compartments. Smoke barriers shall be installed in accordance with Section 710. The area of any one such smoke compartment shall not exceed 22,500 square feet (2092 m<sup>2</sup>). The travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60,960 mm).~~

~~EXCEPTION: Where the ambulatory health care facility is completely surrounded by the required smoke barrier, such smoke barriers shall not be required to be continuous from an outside wall to outside wall.~~

~~**422.4 Refuge area.** At least 15 net square feet (2.8 m<sup>2</sup>) per occupant shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas and other low hazard areas on each side of each smoke barrier. Each ambulatory health care facility shall be provided~~

~~with access to the required refuge areas without passing through or utilizing adjacent tenant spaces.~~

~~**422.5 Independent egress.** A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated.~~

~~**422.6 Automatic sprinkler systems.** Automatic sprinkler systems shall be provided for ambulatory care facilities in accordance with Section 903.2.2.~~

~~**422.7 Fire alarm systems.** A fire alarm system shall be provided for ambulatory health care facilities in accordance with Section 907.2.2.1.)~~

AMENDATORY SECTION (Amending WSR 10-24-059, filed 11/29/10, effective 7/1/11)

#### **WAC 51-50-0504 Section 504—Height.**

**504.3 Stair enclosure pressurization increase.** For Group R1 and R2 occupancies in buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the maximum number of stories permitted in Section 504.2 may be increased by one provided the interior exit stairways and ramps are pressurized in accordance with Section 909.20 and Section 909.11.

**504.4 Roof structures.** (Same as ((2009)) 2012 IBC except Section number revised)

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

#### **WAC 51-50-0506 Building area modifications.**

**506.4 Single occupancy buildings with more than one story.** The total allowable building area of a single occupancy building with more than one story above grade plane shall be determined in accordance with this section. The actual aggregate building area at all stories in the building shall not exceed the total allowable building area.

EXCEPTION: Basements ((below the first story above grade plane)) need not be included in the total allowable building area, provided each basement does not exceed the area permitted for a building with no more than one story above grade plane.

**506.5 Mixed occupancy area determination.** The total allowable building area for buildings containing mixed occupancies shall be determined in accordance with the applicable provisions of this section. Basements ((below the first story above grade plane)) need not be included in the total allowable building area, provided each such basement does not exceed the area permitted for a building with no more than one story above grade plane.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0509 ((Reserved)) Incidental uses.**

**Table 509  
Incidental Uses**

<b>Room or Area</b>	<b>Separation and/or Protection</b>
Dry type transformers over 112.5 kVA and required to be in a fire resistant room per NEC (NFPA 70) Section 450.21 (B) <sup>1</sup>	1 hour or provide automatic sprinkler system

<sup>1</sup> Dry type transformers rated over 35,000 volts and oil-insulated transformers shall be installed in a transformer vault complying with NFPA 70.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0708 Section 708—((Shaft enclosures)) Reserved.**

~~((708.14.2.12 Hoistway venting. Hoistway venting required by Section 3004 need not be provided for pressurized elevator shafts.~~

~~**708.14.2.13 Machine rooms.** Elevator machine rooms shall be pressurized in accordance with this section unless separated from the hoistway shaft by construction in accordance with Section 707-))~~

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0710 Section 710—((Smoke barriers)) Reserved.**

~~((710.4 Continuity. Smoke barriers shall form an effective membrane continuous from outside wall to outside wall and from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, deck or slab above, including continuity through concealed spaces, such as those found above suspended ceiling, and interstitial structural and mechanical spaces. The supporting construction shall be protected to afford the required fire-resistance rating of the wall or floor supported in buildings of other than Type IIB, IIB, or VB construction.~~

EXCEPTIONS: ~~1. Smoke barrier walls are not required in interstitial spaces where such spaces are designed and constructed with ceilings that provide resistance to the passage of fire and smoke equivalent to that provided by the smoke barrier walls.  
2. Smoke barriers provided to enclose areas of refuge as required by Section 1007.6 are not required to extend from outside wall to outside wall-))~~

AMENDATORY SECTION (Amending WSR 04-01-108, filed 12/17/03, effective 7/1/04)

**WAC 51-50-0902 Section 902—((Definitions)) Reserved.**

~~((902.1 Definitions.~~

~~**PORTABLE SCHOOL CLASSROOM.** A structure, transportable in one or more sections, which requires a chassis to be transported, and is designed to be used as an educational space with or without a permanent foundation. The structure shall be trailerable and capable of being demounted and relocated to other locations as needs arise-))~~

AMENDATORY SECTION (Amending WSR 10-24-059, filed 11/29/10, effective 7/1/11)

**WAC 51-50-0903 Section 903—Automatic sprinkler systems.**

**903.2.1.6 Nightclub.** An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code.

**903.2.3 Group E.** An automatic sprinkler system shall be provided for Group E Occupancies.

- EXCEPTIONS:
1. Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table 1004.1.2, provided aggregate area of any cluster or portion of a cluster of portable school classrooms does not exceed 5,000 square feet (1465 m<sup>2</sup>); and clusters of portable school classrooms shall be separated as required by the building code.
  2. Group E occupancies with an occupant load of 50 or less, calculated in accordance with Table ~~((1004.1.1))~~ 1004.1.2.

**903.2.7 Group M.** An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy, where one of the following conditions exists:

1. A Group M fire area exceeds 12,000 square feet (1115 m<sup>2</sup>).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m<sup>2</sup>).
4. Where a Group M occupancy that is used for the display and sale of upholstered furniture or mattresses exceeds 5000 square feet (464 m<sup>2</sup>).

**903.2.8 Group R.** An automatic fire sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

- EXCEPTION:
- Group R-1 if all of the following conditions apply:
1. The Group R fire area is no more than 500 square feet and is used for recreational use only.
  2. The Group R fire area is only one story.
  3. The Group R fire area does not include a basement.
  4. The Group R fire area is no closer than 30 feet from another structure.
  5. Cooking is not allowed within the Group R fire area.
  6. The Group R fire area has an occupant load of no more than 8.
  7. A hand held (portable) fire extinguisher is in every Group R fire area.

AMENDATORY SECTION (Amending WSR 12-01-099, filed 12/20/11, effective 4/1/12)

**WAC 51-50-0908 Section 908—Emergency alarm systems.**

[F] **908.7 Carbon monoxide alarms.** Group I or Group R occupancies shall be provided with single station carbon monoxide alarms installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units and on each level of the dwelling. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2009 and the manufacturer's instructions.

**EXCEPTIONS:**

1. For other than R-2 occupancies, the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; or
2. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, or a fuel-burning fireplace, or have an attached garage, ((but which are located in a building with a fuel-burning appliance, or a fuel-burning fireplace, or an attached garage,)) need not be provided with carbon monoxide alarms provided that:
  - a. The sleeping unit or dwelling unit is not adjacent to any room which contains a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
  - ((2-)) b. The sleeping unit or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or to an attached garage; and
  - ((3-)) c. The building is provided with a common area carbon monoxide ((alarm)) detection system.
  - ((4-)) 3. An open parking garage, as defined in Chapter 2 of the International Building Code, or enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be ((deemed to be)) considered an attached garage.

**908.7.1 Carbon monoxide detection systems.** Carbon monoxide detection systems, that include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720-2009 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-0909 Section 909—Smoke control systems.**

~~((909.6.3 Elevator shaft pressurization. Where elevator shaft pressurization is required to comply with Exception 6 of Section 708.14.1, the pressurization system shall comply with and be maintained in accordance with 708.14.2.~~

~~**909.6.3.1 Activation.** The elevator shaft pressurization system shall be activated by a fire alarm system which shall include smoke detectors or other approved detectors located near the elevator shaft on each floor as approved by the build-~~

~~ing official and fire code official. If the building has a fire alarm panel, detectors shall be connected to, with power supplied by, the fire alarm panel.~~

~~**909.6.3.2 Power system.** The power source for the fire alarm system and the elevator shaft pressurization system shall be in accordance with Section 909.11-.)~~

~~**909.21.12 Hoistway venting.** Hoistway venting required by Section 3004 need not be provided for pressurized elevator shafts.~~

~~**909.21.13 Machine rooms.** Elevator machine rooms shall be pressurized in accordance with this section unless separated from the hoistway shaft by construction in accordance with Section 707.~~

AMENDATORY SECTION (Amending WSR 10-24-059, filed 11/29/10, effective 7/1/11)

**WAC 51-50-1005 Section 1005—((Egress width-)) Reserved.**

~~((1005.1 Minimum required egress width. The means of egress width shall not be less than required by this section. The total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by 0.3 inches (7.62 mm) per occupant for stairways and by 0.2 inches (5.08 mm) per occupant for other egress components. The width shall not be less than specified elsewhere in this code. Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity to less than 50 percent of the required capacity. The maximum capacity required from any story of a building shall be maintained to the termination of the means of egress.~~

**EXCEPTIONS:**

1. Means of egress complying with Section 1028.
2. For other than H and I-2 occupancies, the total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by 0.2 inches (5.1 mm) per occupant for stairways and by 0.15 inches (3.8 mm) per occupant for other egress components in buildings that are provided with sprinkler protection in accordance with 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with 907.5.2.2-))

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1008 Section 1008—Doors, gates and turnstiles.**

**1008.1.9.3 Locks and latches.** Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:

2.1. The locking device is readily distinguishable as locked;

2.2. A readily visible sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and

2.3. The use of the key-operated locking device is revocable by the building official for due cause.

3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no door-knob or surface-mounted hardware.

4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt, or security chain, provided such devices are openable from the inside without the use of a key or a tool.

5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

6. Approved, listed locks without delayed egress shall be permitted in Group R-2 boarding homes licensed by Washington state, provided that:

6.1. The clinical needs of one or more patients require specialized security measures for their safety.

6.2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.

6.3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.

6.4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.

6.5. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.

**1008.1.9.6 Special locking arrangements in Group I-2.** *Approved special egress* locks shall be permitted in a Group I-2 Occupancy where the clinical needs of persons receiving care require such locking. *Special egress* locks shall be permitted in such occupancies where the building is equipped throughout with an automatic *sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through ~~(6 below)~~ 7.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.

2. The doors unlock upon loss of power controlling the lock or lock mechanism.

3. The door locks shall have the capability of being unlocked by a signal from the *fire command center*, a nursing station or other *approved* location.

4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.

5. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.

~~((5-))~~ 6. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.

~~((6-))~~ 7. Emergency lighting shall be provided at the door.

EXCEPTION: Items 1, 2, 3, and ~~((5))~~ 6 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a ~~((Group I-2 mental hospital))~~ psychiatric treatment area provided that all clinical staff shall have the keys, codes or other means necessary to operate the locking devices.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1009 Section 1009—Stairways and handrails.**

**1009.3 Exit access stairways.** Floor openings between stories created by *exit access stairways* shall be enclosed.

EXCEPTIONS:

1. In other than Group I-2 and I-3 occupancies, *exit access stairways* that serve, or atmospherically communicate between, only two stories are not required to be enclosed. Such interconnected stories shall not be open to other stories.
2. *Exit access stairways* serving and contained within a single residential *dwelling unit* or *sleeping unit* in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
3. In Group B or M occupancies, *exit access stairways* that are designed exclusively for circulation are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.
4. In other than Group B and M occupancies, *exit access stairways* that are designed exclusively for circulation are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.

~~((1009.15))~~ **1009.18 Stairways in individual dwelling units.** Stairs or ladders within an individual dwelling unit used for access to areas of 200 square feet (18.6 m<sup>2</sup>) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1009.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-10100 Section 1010—Ramps.**

**1010.1 Scope.** The provisions of this section shall apply to ramps used as a component of a means of egress.

EXCEPTIONS: 1. Other than ramps that are part of the accessible routes providing access in accordance with Sections

1108.2 through 1108.2.4 and 1108.2.6, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1028.11.

2. Curb ramps shall comply with ICC A117.1.

3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections ((1010.3)) 1010.4 through ((1010.9)) 1010 when they are not an accessible route serving accessible parking spaces or other required accessible elements.

4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area may include a vehicle ramp that does not comply with Sections ((1010.4, 1010.5, and 1010.8)) 1010.5, 1010.6, and 1010.9. A landing complying with Sections ((1010.6.1 and 1010.6.4)) 1010.7.1 and 1010.7.4 shall be provided at any change of direction in the accessible means of egress.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1014 ((Exit access.)) Reserved.**

~~((1014.2.2 Group I-2.~~

~~**General.** Habitable spaces and suites in Group I-2 occupancies are permitted to comply with this Section 1014.2.2.~~

~~**1014.2.2.1 Exit access doors.** Habitable spaces and suites in Group I-2 occupancies shall have an exit access door leading directly to a corridor.~~

~~((EXCEPTION: Rooms with exit doors opening directly to the outside at ground level.~~

~~**1014.2.2.2 Exit access through suites.** Exit access from areas not classified as a Group I-2 Occupancy suite shall not pass through a suite. In a suite required to have more than one exit, one exit access may pass through an adjacent suite if all other requirements of Section 1014.2 are satisfied.~~

~~**1014.2.2.3 Separation.** Suites in Group I-2 Occupancies shall be separated from other portions of the building by a smoke partition complying with Section 711. Partitions within suites are not required to be smoke resistant or fire-resistance-rated unless required by another section of this Code.~~

~~**1014.2.2.4 Suites containing patient sleeping areas.** Patient sleeping areas in Group I-2 Occupancies shall be permitted to be divided into suites with one intervening room if one of the following conditions is met:~~

~~1. The intervening room within the suite is not used as an exit access for more than eight patient beds.~~

~~2. The arrangement of the suite allows for direct and constant visual supervision by nursing personnel.~~

~~**1014.2.2.4.1 Area.** Suites of sleeping rooms shall not exceed 5,000 square feet (465 m<sup>2</sup>).~~

~~**1014.2.2.4.2 Exit access.** Any patient sleeping room, or any suite that includes patient sleeping rooms, of more than 1,000 square feet (93 m<sup>2</sup>) shall have at least two exit access doors located in accordance with Section 1015.2.~~

~~**1014.2.2.4.3 Travel distance.** The travel distance between any point in a suite of sleeping rooms and an exit access door of that suite shall not exceed 100 feet (30,480 mm). The travel distance between any point in a Group I-2 Occupancy patient sleeping room and an exit access door in that room shall not exceed 50 feet (15,240 mm).~~

~~**1014.2.2.5 Suites not containing patient sleeping areas.** Areas other than patient sleeping areas in Group I-2 Occupancies shall be permitted to be divided into suites that comply with Sections 1014.2.2.5.1 through 1014.2.2.5.4.~~

~~**1014.2.2.5.1 Area.** Suites of rooms, other than patient sleeping rooms, shall not exceed 10,000 square feet (929 m<sup>2</sup>).~~

~~**1014.2.2.5.2 Exit access.** Any rooms or suite of rooms, other than patient sleeping rooms, of more than 2,500 square feet (232 m<sup>2</sup>) shall have at least two exit access doors located in accordance with Section 1015.2.~~

~~**1014.2.2.5.3 One intervening room.** For rooms other than patient sleeping rooms, suites of rooms are permitted to have one intervening room if the travel distance within the suite to the exit access door is not greater than 100 feet (30,480 mm).~~

~~**1014.2.2.5.4 Two intervening rooms.** For rooms other than patient sleeping rooms located within a suite, exit access travel from within the suite shall be permitted through two intervening rooms where the travel distance to the exit access door is not greater than 50 feet (15,240 mm).))~~

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1018 Section 1018—Corridors.**

**1018.5 Air movement in corridors.** Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

EXCEPTIONS:

1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.

2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.

3. Where located within tenant spaces of one thousand square feet (93 m<sup>2</sup>) or less in area, utilization of corridors for conveying return air is permitted.

4. Incidental air movement from pressurized rooms within health care facilities, provided that a corridor is not the primary source of supply or return to the room.

5. Where such air is part of an engineered smoke control system.

6. Air supplied to corridors serving residential occupancies shall not be considered as providing ventilation air to the dwelling units subject to the following:

6.1 The air supplied to the corridor is one hundred percent outside air; and

6.2 The units served by the corridor have conforming ventilation air independent of the air supplied to the corridor; and

6.3 For other than high-rise buildings, the supply fan will automatically shut off upon activation of corridor smoke detectors which shall be spaced at no more than thirty feet (9,144 mm) on center along the corridor; or



6.4 For high-rise buildings, corridor smoke detector activation will close required smoke/fire dampers at the supply inlet to the corridor at the floor receiving the alarm.

**1018.6 Corridor continuity.** Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.

EXCEPTIONS:

1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.
2. In Group R-2 boarding homes and residential treatment facilities licensed by Washington state, seating areas shall be allowed to be open to the corridor provided:
  - 2.1 The seating area is constructed as required for the corridor;
  - 2.2 The floor is separated into at least two compartments complying with Section ((407.4) 407.5;
  - 2.3 Each individual seating area does not exceed 150 square feet, excluding the corridor width;
  - 2.4 The combined total space of seating areas per compartment does not exceed 300 square feet, excluding the corridor width;
  - 2.5 Combustible furnishings located within the seating area shall be in accordance with the International Fire Code Section 805; and
  - 2.6 Emergency means of egress lighting is provided as required by Section 1006 to illuminate the area.

#### NEW SECTION

**WAC 51-50-1021 Number of exits and exit configuration.**

**1021.3.1 Access to exits at adjacent levels.** Access to exits at other levels shall be by stairways or ramps. Where access to exits occurs from adjacent building levels, the horizontal and vertical exit access travel distance to the closest exit shall not exceed that specified in Section 1016.1. The path of egress travel to an exit shall not pass through more than one adjacent story.

EXCEPTION: Landing platforms or roof areas for *helistops* that are less than 60 feet (18,288 mm) long, or less than 2,000 square feet (186 m<sup>2</sup>) in area, shall be permitted to access the second exit by a fire escape, *alternating tread device* or ladder leading to the story or level below.

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-1101 Section 1101—General.**

**1101.2 Design.** Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1, except those portions of ICC A117.1 amended by this section.

~~((1101.2.1 (ICC A117.1 Section 403) Landings for walking surfaces. The maximum rise for any run is 30 inches (762 mm). Landings shall be provided at the top and bottom of any run. Landings shall be level and have a minimum dimension measured in the direction of travel of not less than 60 inches (1525 mm).))~~

**1101.2.2 (ICC A117.1 Section 403.5) Clear width of accessible route.** Clear width of an accessible route shall comply

with ICC A117.1 ((Table)) Section 403.5. For exterior routes of travel, the minimum clear width shall be 44 inches (1118 mm).

**1101.2.3 (ICC A117.1 Section 404.2.8) Door-opening force.** Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire doors shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum
2. Interior sliding or folding doors: 5.0 pounds (22.2 N) maximum
3. Exterior hinged, sliding or folding door: 10 pounds (44.4 N) maximum.

EXCEPTION: Interior or exterior automatic doors complying with Section 404.3 of ICC ANSI A117.1.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.

**1101.2.4 (ICC A117.1 Section 407.4.6.2.2) Arrangement of elevator car buttons.** This section is not adopted.

~~((1101.2.5 (ICC A117.1 603.4) Coat hooks and shelves. Coat hooks shall be located within one of the reach ranges specified in Section 308. Shelves shall be installed so the top of the shelf is 40 inches (1015 mm) minimum and 42 inches maximum above the floor.~~

~~1101.2.6 (ICC A117.1 604.11) Coat hooks and shelves. Coat hooks provided within toilet compartments shall be located within one of the reach ranges specified in Section 308. Shelves shall be installed so the top of the shelf is 40 inches (1015 mm) minimum and 42 inches maximum above the floor.))~~

**1101.2.7 (ICC ANSI A117.1 606.7) Operable parts.** Operable parts on drying equipment, towel or cleansing product dispensers, and disposal fixtures shall comply with Table ((606.7, except the maximum reach height shall be 40 inches (1015 mm) for reach depths less than 6 inches)) 603.6.

**1101.2.8 (ICC A117.1 Section 604.6) Flush controls.** Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with Section 309, except the maximum height above the floor shall be 44 inches. Flush controls shall be located on the open side of the water closet.

EXCEPTION: In ambulatory accessible compartments complying with Section ((604.9) 604.10, flush controls shall be permitted to be located on either side of the water closet.

**1101.2.9 (ICC A117.1 Section 703.6.3.1) International Symbol of Accessibility.** Where the International Symbol of Accessibility is required, it shall be proportioned complying with ICC A117.1 Figure 703.6.3.1. All interior and exterior signs depicting the International Symbol of Accessibility shall be white on a blue background.

~~((1101.2.10 (ICC A117.1 Section 404.3.5) Control switches. Manually operated control switches shall comply with Section 309, except they shall be placed 32 inches minimum (815 mm) and 40 inches maximum (1015 mm) above the floor. The clear floor space adjacent to the control switch~~

shall be located beyond the arc of the door swing and centered on the control switch.))

**AMENDATORY SECTION** (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1106 Section 1106—Parking and passenger loading facilities.**

~~((1106.3 Group I-2 outpatient facilities. Ten percent, but not less than one, of patient and visitor parking spaces provided to serve Group I-2 outpatient facilities shall be accessible.))~~

**1106.6 Location.** Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on the shortest route to an accessible pedestrian entrance to the parking facility. Where buildings have multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances. Wherever practical, the accessible route shall not cross lanes of vehicular traffic. Where crossing traffic lanes is necessary, the route shall be designated and marked as a crosswalk.

EXCEPTION:

1. In multilevel parking structures, van accessible parking spaces are permitted on one level.
2. Accessible parking spaces shall be permitted to be located in different parking facilities if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances, parking fee and user convenience.

**AMENDATORY SECTION** (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-1107 Section 1107—Dwelling units and sleeping units.**

**1107.6 Group R.** Accessible units, Type A units and Type B units shall be provided in Group R Occupancies in accordance with Sections 1107.6.1 through 1107.6.4. Accessible and Type A units shall be apportioned among efficiency dwelling units, single bedroom units and multiple bedroom units, in proportion to the numbers of such units in the building.

**1107.6.2.1.1 Type A units.** In Group R-2 Occupancies containing more than 10 dwelling units or sleeping units, at least 5 percent, but not less than one, of the units shall be a Type A unit. All units on a site shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units, as described in Section 1107.6.

EXCEPTIONS:

1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7.
2. Existing structures on a site shall not contribute to the total number of units on a site.

**1107.6.2.2 Group R-2 other than apartment houses, monasteries and convents.** In Group R-2 Occupancies, other than apartment houses, monasteries and convents, Accessible units and Type B units shall be provided in accordance with

Sections 1107.6.2.2.1 and 1107.6.2.2.2. Accessible units shall be dispersed among the various classes of units, as described in Section 1107.6.

**AMENDATORY SECTION** (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1203 Section 1203—Ventilation.**

**1203.1 General.** Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the *International Mechanical Code*.

**1203.2 Attic spaces.** Enclosed *attics* and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. ~~((A minimum of))~~ An airspace of not less than 1 inch (25 mm) ((of airspace)) shall be provided between the insulation and the roof sheathing. The net free ventilating area shall not be less than 1/150th of the area of the space ventilated ~~((with 50 percent of the required ventilating area provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents))~~.

EXCEPTIONS:

1. The ~~((minimum required net free ventilating))~~ net free cross-ventilation area shall be permitted to be reduced to 1/300 ((of the area of the space ventilated.)) provided ((a vapor retarder having a transmission rate not exceeding one perm in accordance with ASTM E 96 is installed on the warm side of the attic insulation and provided 50 percent of the required ventilating area provided by ventilators located in the upper portion of the space to be ventilated is at least 3 feet (914 mm) above eave or cornice vents, with the balance of the required ventilation provided by eave or cornice vents)) not less than 50 percent and not more than 80 percent of the required ventilating area provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents.
2. The net free cross-ventilation area shall be permitted to be reduced to 1/300 where a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.
3. Attic ventilation shall not be required when determined not necessary by the building official due to atmospheric or climatic conditions.
4. Unvented attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) shall be permitted if all the following conditions are met:
  - ~~((2.1))~~ 4.1 The unvented attic space is completely contained within the building thermal envelope.
  - ~~((2.2))~~ 4.2 No interior vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.
  - ~~((2.3))~~ 4.3 Where wood shingles or shakes are used, a minimum 1/4 inch (6 mm) vented air space separates the shingles or shakes and the roofing underlayment above the structural sheathing.
  - ~~((2.4))~~ 4.4 In Climate Zones 5B and 6B, any air-impermeable insulation shall be a Class II vapor

retarder, or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.

((2-5)) 4.5 Either items a, b, or c below shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.

a. Air-impermeable insulation only. Insulation shall be applied in direct contact to the underside of the structural roof sheathing.

b. Air-permeable insulation only. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing as specified ((per WA Climate Zone)) in Table 1203.2.1 for condensation control.

((i. Climate Zone #1 – R-10 minimum rigid board or air-impermeable insulation R-value.

ii. Climate Zone #2 – R-25 minimum rigid board or air-impermeable insulation R-value.))

c. Air-impermeable and air-permeable insulation. The air-impermeable insulation shall be applied in direct contact to the underside of the structural roof sheathing as specified ((per WA Climate Zone)) in Table 1203.2.1 for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.

i. Climate Zone #1 - R-10 minimum rigid board or air-impermeable insulation R-value.

ii. Climate Zone #2 - R-25 minimum rigid board or air-impermeable insulation R-value.

d. Where preformed insulation board is used as the air-impermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

**Table 1203.2.1**

**Insulation for Condensation Control**

CLIMATE ZONE	MINIMUM RIGID BOARD AIR-IMPERMEABLE INSULATION R-VALUE <sup>a</sup>
4C	R-15
5B	R-20
6B	R-25

<sup>a</sup> Contributes to but does not supercede the requirements for insulation in the Washington State Energy Code (WAC 51-11).

**1203.4 Natural ventilation.** For other than Group R Occupancies, natural ventilation of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. The operating mechanism for such openings shall be provided with ready access so that the openings are readily controllable by the building occupants. Group R Occupancies shall comply with the *International Mechanical Code*.

**1203.6 Radon resistive construction standards.** The criteria of this section establishes minimum radon resistive construction requirements for Group R Occupancies.

**1203.6.1 Application.** The requirements of Section 1203.6 shall be adopted and enforced by all jurisdictions of the state according to the following subsections.

**1203.6.1.1** All jurisdictions of the state shall comply with Section 1203.6.2.

**1203.6.1.2** Clark, Ferry, Okanogan, Pend Oreille, Skamania, Spokane, and Stevens counties shall also comply with Section 1203.6.3.

**1203.6.2 State wide radon requirements.**

**1203.6.2.1 Crawlspace.** All crawlspaces shall comply with the requirements of this section.

**1203.6.2.2 Ventilation.** All crawlspaces shall be ventilated as specified in Section 1203.3.

If the installed ventilation in a crawlspace is less than one square foot for each 300 square feet of crawlspace area, or if the crawlspace vents are equipped with operable louvers, a radon vent shall be installed to originate from a point between the ground cover and soil. The radon vent shall be installed in accordance with Sections 1203.6.3.2.6 and 1203.6.3.2.7.

**1203.6.2.3 Crawlspace plenum systems.** In crawlspace plenum systems used for providing supply air for an HVAC system, aggregate, a permanently sealed soil gas retarder membrane and a radon vent pipe shall be installed in accordance with Section 1203.6.3.2. Crawlspaces shall not be used for return air plenums.

In addition, an operable radon vent fan shall be installed and activated. The fan shall be located as specified in Section 1203.6.3.2.7. The fan shall be capable of providing at least 100 cfm at 1-inch water column static pressure. The fan shall be controlled by a readily accessible manual switch. The switch shall be labeled "RADON VENT FAN."

**1203.6.3 Radon prescriptive requirements.**

**1203.6.3.1 Scope.** This section applies to those counties specified in Section 1203.6.1.2. This section establishes prescriptive construction requirements for reducing the potential for radon entry into all Group R Occupancies, and for preparing the building for future mitigation if desired.

In all crawlspaces, except crawlspace plenums used for providing supply air for an HVAC system, a continuous air barrier shall be installed between the crawlspace area and the occupied area to limit air transport between the areas. If a wood sheet subfloor or other material is utilized as an air barrier, in addition to the requirements of Section 502.1.6.2 of the Washington State Energy Code, all joints between sheets shall be sealed.

**1203.6.3.2 Floors in contact with the earth.**

**1203.6.3.2.1 General.** Concrete slabs that are in direct contact with the building envelope shall comply with the requirements of this section.

EXCEPTION: Concrete slabs located under garages or other than Group R Occupancies need not comply with this chapter.

**1203.6.3.2.2 Aggregate.** A layer of aggregate of 4-inch minimum thickness shall be placed beneath concrete slabs. The aggregate shall be continuous to the extent practical.

**1203.6.3.2.3 Gradation.** Aggregate shall:

1. Comply with ASTM Standard C-33 Standard Specification for Concrete Aggregate and shall be size No. 8 or larger size aggregate as listed in Table 2, Grading Requirements for Course Aggregate; or
2. Meet the 1988 Washington State Department of Transportation Specification 9-03.1 (3) "Coarse Aggregate

for Portland Cement Concrete," or any equivalent successor standards. Aggregate size shall be of Grade 8 or larger as listed in Section 9-03.1 (3) C, "Grading"; or

3. Be screened, washed pea gravel free of deleterious substances in a manner consistent with ASTM Standard C-33 with 100 percent passing a 1/2-inch sieve and less than 5 percent passing a No. 16 sieve. Sieve characteristics shall conform to those acceptable under ASTM Standard C-33.

EXCEPTION: Aggregate shall not be required if a substitute material or system, with sufficient load bearing characteristics, and having approved capability to provide equal or superior air flow, is installed.

**1203.6.3.2.4 Soil-gas retarder membrane.** A soil-gas retarder membrane, consisting of at least one layer of virgin polyethylene with a thickness of at least 6 mil, or equivalent flexible sheet material, shall be either placed directly under all concrete slabs so that the slab is in direct contact with the membrane, or on top of the aggregate with 2 inches minimum of fine sand or pea gravel installed between the concrete slab and membrane. The flexible sheet shall extend to the foundation wall or to the outside edge of the monolithic slab. Seams shall overlap at least 12 inches. The membrane shall also be fitted tightly to all pipes, wires, and other penetrations of the membrane and sealed with an approved sealant or tape. All punctures or tears shall be repaired with the same or approved material and similarly lapped and sealed.

**1203.6.3.2.5 Sealing of penetrations and joints.** All penetrations and joints in concrete slabs or other floor systems and walls below grade shall be sealed by an approved sealant to create an air barrier to limit the movement of soil-gas into the indoor air.

Sealants shall be approved by the manufacturer for the intended purpose. Sealant joints shall conform to manufacturer's specifications. The sealant shall be placed and tooled in accordance with manufacturer's specifications. There shall be no gaps or voids after the sealant has cured.

**1203.6.3.2.6 Radon vent.** One continuous sealed pipe shall run from a point within the aggregate under each concrete slab to a point outside the building. Joints and connections shall be permanently gas tight. The continuous sealed pipe shall interface with the aggregate in the following manner, or by other approved equal method. The pipe shall be permanently connected to a "T" within the aggregate area so that the two end openings of the "T" lie within the aggregate area. A minimum of 5 feet of perforated drain pipe of 3 inches minimum diameter shall join to and extend from the "T." The perforated pipe shall remain in the aggregate area and shall not be capped at the ends. The "T" and its perforated pipe extensions shall be located at least 5 feet horizontally from the exterior perimeter of the aggregate area.

The continuous sealed pipe shall terminate no less than 12 inches above the eave, and more than 10 horizontal feet from a woodstove or fireplace chimney, or operable window. The continuous sealed pipe shall be labeled "radon vent." The label shall be placed so as to remain visible to an occupant.

The minimum pipe diameter shall be 3 inches unless otherwise approved. Acceptable sealed plastic pipe shall be

smooth walled, and may include either PVC schedule 40 or ABS schedule of equivalent wall thickness.

The entire sealed pipe system shall be sloped to drain to the subslab aggregate.

The sealed pipe system may pass through an unconditioned attic before exiting the building; but to the extent practicable, the sealed pipe shall be located inside the thermal envelope of the building in order to enhance passive stack venting.

EXCEPTION: A fan for subslab depressurization system includes the following:

1. Soil-gas retarder membrane as specified in Section 1203.6.3.2.4;
2. Sealing of penetrations and joints as specified in Section 1203.6.3.2.5;
3. A 3-inch continuous sealed radon pipe shall run from a point within the aggregate under each concrete slab to a point outside the building;
4. Joints and connections shall be gas tight, and may be of either PVC schedule 40 or ABS schedule of equivalent in wall thickness;
5. A label of "radon vent" shall be placed on the pipe so as to remain visible to an occupant;
6. Fan circuit and wiring as specified in Section 1203.6.3.2.7 and a fan.

If the subslab depressurization system is exhausted through the concrete foundation wall or rim joist, the exhaust terminus shall be a minimum of 6 feet from operable windows or outdoor air intake vents and shall be directed away from operable windows and outdoor air intake vents to prevent radon reentrainment.

**1203.6.3.2.7 Fan circuit and wiring and location.** An area for location of an in-line fan shall be provided. The location shall be as close as practicable to the radon vent pipe's point of exit from the building, or shall be outside the building shell; and shall be located so that the fan and all downstream piping is isolated from the indoor air.

Provisions shall be made to allow future activation of an in-line fan on the radon vent pipe without the need to place new wiring. A 110 volt power supply shall be provided at a junction box near the fan location.

**1203.6.3.2.8 Separate aggregate areas.** If the 4-inch aggregate area underneath the concrete slab is not continuous, but is separated into distinct isolated aggregate areas by a footing or other barrier, a minimum of one radon vent pipe shall be installed into each separate aggregate area.

EXCEPTION: Separate aggregate areas may be considered a single area if a minimum 3-inch diameter connection joining the separate areas is provided for every 30 feet of barrier separating those areas.

**1203.6.3.2.9 Concrete block walls.** Concrete block walls connected to below grade areas shall be considered unsealed surfaces. All openings in concrete block walls that will not remain accessible upon completion of the building shall be sealed at both vertical and horizontal surfaces, in order to create a continuous air barrier to limit the transport of soil-gas into the indoor air.

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-1204 Section 1204—Temperature control.**

**1204.1 Equipment and systems.** Interior spaces intended for human occupancy shall be provided with active or passive space-heating systems capable of maintaining a minimum indoor temperature of 68°F (20°C) at a point 3 feet (914 mm) above the floor on the design heating day.

EXCEPTION: 1. Interior spaces where the primary purpose is not associated with human comfort.  
2. Group R-1 Occupancies not more than 500 square feet.

**1204.2.1 Definitions.** For the purposes of this section only, the following definitions apply.

**DESIGNATED AREAS** are those areas designated by a county to be an urban growth area in chapter 36.70A RCW and those areas designated by the U.S. Environmental Protection Agency as being in nonattainment for particulate matter.

**SUBSTANTIALLY REMODELED** means any alteration or restoration of a building exceeding 60 percent of the appraised value of such building within a 12-month period. For the purpose of this section, the appraised value is the estimated cost to replace the building and structure in-kind, based on current replacement costs.

**1204.2.2 Primary heating source.** Primary heating sources in all new and substantially remodeled buildings in designated areas shall not be dependent upon wood stoves.

**1204.2.3 Solid fuel burning devices.** No new or used solid fuel burning device shall be installed in new or existing buildings unless such device is United States Environmental Protection Agency certified or a pellet stove either certified or exempt from certification by the United States Environmental Protection Agency.

EXCEPTION: ~~((Antique))~~ 1. Wood cook stoves ~~((and))~~.  
2. Wood heaters ~~((manufactured prior to 1940))~~.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1208 Section 1208—Interior space dimensions.**

**1208.2 Minimum ceiling heights.** Occupiable spaces and habitable spaces shall have a ceiling height of not less than 7 feet 6 inches (2286 mm). Bathrooms, toilet rooms, kitchen, storage rooms and laundry rooms shall be permitted to have a ceiling height of not less than 7 feet (2134 mm).

EXCEPTIONS: 1. In one- and two-family dwellings, beams or girders spaced not less than 4 feet (1219 mm) on center and projecting not more than 6 inches (152 mm) below the required ceiling height.  
2. If any room in a building has a sloped ceiling, the prescribed ceiling height for the room is required in one-half the area thereof. Any portion of the room measuring less than 5 feet (1524 mm) from the finished floor to the ceiling shall not be included in any computation of the minimum area thereof.

3. Mezzanines constructed in accordance with Section 505.1.

**1208.3 Room area.** Every dwelling unit shall have ~~((at least))~~ no fewer than one room that shall have not less than 120 square feet (13.9 m<sup>2</sup>) of net floor area. Other habitable rooms shall have a net floor area of not less than 70 square feet (6.5 m<sup>2</sup>).

EXCEPTION: Kitchens in one- and two-family dwellings.

Portions of a room with a sloped ceiling measuring less than 5 feet (1524 mm) or a flat ceiling measuring less than 7 feet (2134 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum habitable area for that room.

AMENDATORY SECTION (Amending WSR 05-01-014, filed 12/2/04, effective 7/1/05)

**WAC 51-50-1210 Section 1210—~~((Surrounding materials))~~ Toilet and bathroom requirements.**

~~((1210.5))~~ **1210.4 Toilet rooms.** This section is not adopted.

(The requirements of this section have been moved to Section ~~((2902.2.1.1))~~ 2902.3.1.1)

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1403 Section 1403—Performance requirements.**

**1403.2 Weather protection.** Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section 1405.4. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer, as described in Section 1404.2, and a means of draining water that enters the assembly to the exterior. An air space cavity is not required under the exterior cladding for an exterior wall clad with lapped or panel siding made of plywood, engineered wood, hardboard, or fiber cement. Protection against condensation in the exterior wall assembly shall be provided in accordance with Section 1405.3.

EXCEPTIONS: 1. A weather-resistant exterior wall envelope shall not be required over concrete or masonry walls designed in accordance with Chapters 19 and 21, respectively.  
2. Compliance with the requirements for a means of drainage, and the requirements of Sections 1404.2 and ~~((1405.3))~~ 1405.4, shall not be required for an exterior wall envelope that has been demonstrated through testing to resist wind-driven rain, including joints, penetrations and intersections with dissimilar materials, in accordance with ASTM E 331 under the following conditions:  
2.1 Exterior wall envelope test assemblies shall include at least one opening, one control joint, one wall/eave interface and one wall sill. All tested openings and penetrations shall be representative of the intended end-use configuration.  
2.2 Exterior wall envelope test assemblies shall be at least 4 feet by 8 feet (1219 mm by 2438 mm) in size.

- 2.3 Exterior wall envelope assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (psf) (0.297 kN/m<sup>2</sup>).
- 2.4 Exterior wall envelope assemblies shall be subjected to a minimum test exposure duration of 2 hours. The exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate control joints in the exterior wall envelope, joints at the perimeter of openings or intersections of terminations with dissimilar materials.
- 3. Exterior insulation and finish systems (EIFS) complying with Section 1408.4.1.

**1403.5 Vertical and lateral flame propagation. Exterior walls on buildings of Type I, II, III, or IV construction that are greater than 40 feet (12,192 mm) in height above grade plane and contain a combustible water-resistive barrier shall be tested in accordance with and comply with the acceptance criteria of NFPA 285.**

**EXCEPTION:** Walls that contain less than 500 gm/m<sup>2</sup> combustible material and where the water-resistive barrier has a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E 84 or UL 723.

**AMENDATORY SECTION** (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1405 Section 1405—(~~Installation of wall coverings.~~) Reserved.**

~~((1405.6.2 Seismic requirements. Anchored masonry veneer located in Seismic Design Category C, D, E, or F shall conform to the requirements of Section 6.2.2.10, except Section 6.2.2.10.3.2, of TMS 402/ACI 530/ASCE 5.))~~

**AMENDATORY SECTION** (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1609 Section 1609—(~~Wind loads.~~) Reserved.**

**NEW SECTION**

**WAC 51-50-1705 Required verification and inspection.**

**Modify Table 1705.3.** Remainder of Table 1705.3 remains as published in the 2012 IBC.

**Table 1705.3  
Required Verification and Inspection of Concrete Construction**

Verification and Inspection	Continuous	Periodic	Referenced Standard <sup>a</sup>	IBC Reference
3. Inspection of anchors cast in concrete.	————	X	ACI 318: D.9.2	
4. Inspection of anchors post-installed in hardened concrete members <sup>b</sup> .				
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	————	X	ACI 318: D.9.2.4	
b. Mechanical anchors and adhesive anchors not defined in 4 <sup>a</sup> .	————	X	ACI 318: D.9.2	

<sup>a</sup>Where applicable, see also Section 1705.11, Special inspections for seismic resistance.

<sup>b</sup>Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with D.9.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

~~((1609.1.1 Determination of wind loads. Wind loads on every building or structure shall be determined in accordance with Chapter 6 of ASCE 7 or provisions of the alternate all-heights method in Section 1609.6. The type of opening protection required, the basic wind speed and the exposure category for a site is permitted to be determined in accordance with Section 1609 or ASCE 7. Wind shall be assumed to come from any horizontal direction and wind pressures shall be assumed to act normal to the surface considered.~~

**EXCEPTIONS:**

1. Subject to the limitations of Section 1609.1.1.1, the provisions of ICC 600 shall be permitted for applicable Group R-2 and R-3 buildings.
2. Subject to the limitations of Section 1609.1.1.1, residential structures using the provisions of the AF&PA WFCM.
3. Subject to the limitations of Section 1609.1.1.1, residential structures using the provisions of AISI S230.
4. Designs using NAAMM FP 1001.
5. Designs using TIA 222 for antenna supporting structures and antennas. In section 2.6.6.2, the extent of Topographic Category 2, escarpments, shall extend 16 times the height of the escarpment.
6. Wind tunnel test in accordance with Section 6.6 of ASCE 7, subject to the limitations in Section 1609.1.1.2.)

**AMENDATORY SECTION** (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-1702 Section 1702—Definitions.**

**1702.1 ((~~General.~~) Definitions.** The following terms are defined in Chapter 2:

~~**SMALL BUSINESS.** ((Any business entity (including a sole proprietorship, corporation, partnership or other legal entity) which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has fifty or fewer employees, or which has a million dollars or less per year in gross sales, of window and door products.))~~

NEW SECTION**WAC 51-50-1710 Section 1710—Preconstruction load tests.**

**1710.5 Exterior window and door assemblies.** The design pressure rating of exterior windows and doors in buildings shall be determined in accordance with Section 1715.5.1 or 1715.5.2.

- EXCEPTIONS:
1. Structural wind load design pressures for window units smaller than the size tested in accordance with Section 1715.5.1 or 1715.5.2 shall be permitted to be higher than the design value of the tested unit provided such higher pressures are determined by accepted engineering analysis. All components of the small unit shall be the same as the tested unit. Where such calculated design pressures are used, they shall be validated by an additional test of the window unit having the highest allowable design pressure.
  2. Custom exterior windows and doors manufactured by a small business shall be exempt from all testing requirements in Section 1715 of the International Building Code provided they meet the applicable provisions of Chapter 24 of the International Building Code.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-1715 Section 1715—(~~Preconstruction load tests.~~) Reserved.**

~~((1715.5 Exterior window and door assemblies. The design pressure rating of exterior windows and doors in buildings shall be determined in accordance with Section 1715.5.1 or 1715.5.2.~~

- EXCEPTIONS:
1. ~~Structural wind load design pressures for window units smaller than the size tested in accordance with Section 1715.5.1 or 1715.5.2 shall be permitted to be higher than the design value of the tested unit provided such higher pressures are determined by accepted engineering analysis. All components of the small unit shall be the same as the tested unit. Where such calculated design pressures are used, they shall be validated by an additional test of the window unit having the highest allowable design pressure.~~
  2. ~~Custom exterior windows and doors manufactured by a small business shall be exempt from all testing requirements in Section 1715 of the International Building Code provided they meet the applicable provisions of Chapter 24 of the International Building Code.~~

NEW SECTION**WAC 51-50-1901 Section 1901—General.**

**1901.2.1 Anchoring to concrete.** Anchoring to concrete shall be in accordance with ACI 318 as amended in Section 1905, and applies to cast-in (headed bolts, headed studs, and hooked J-or L-bolts) anchors and post-installed expansion (torque-controlled and displacement-controlled), undercut, and adhesive anchors.

NEW SECTION**WAC 51-50-1903 Section 1903—Specifications for tests and materials.**

**1903.1 General.** Materials used to produce concrete, concrete itself and testing thereof shall comply with the applicable standards listed in ACI 318.

- EXCEPTION:
- The following standards as referenced in Chapter 35 shall be permitted to be used.
1. ASTM C 150
  2. ASTM C 595
  3. ASTM C 1157

**1903.2 Special inspections.** *Where required, special inspections and tests shall be in accordance with Chapter 17.*

NEW SECTION**WAC 51-50-1904 Section 1904—Durability requirements.**

**1904.1 Structural concrete.** Structural concrete shall conform to the durability requirements of ACI 318.

**1904.2 Nonstructural concrete.** The registered design professional shall assign nonstructural concrete a freeze-thaw exposure class, as defined in ACI 318, based on the anticipated exposure of nonstructural concrete. Nonstructural concrete shall have a minimum specified compressive strength,  $f'_c$ , of 2500 psi for Class F0; 3000 psi for Class F1; and 3500 psi for Classes F2 and F3. Nonstructural concrete shall be air entrained in accordance with ACI 318.

NEW SECTION**WAC 51-50-1905 Section 1905—Modifications to ACI 318.**

**1905.1 General.** The text of ACI 318 shall be modified as indicated in Sections 1905.1.1 through 1905.1.10.

**WALL PIER.** This definition is not adopted.

**1905.1.3 ACI 318, Section 21.4.** Modify ACI 318, Section 21.4, by adding new Section 21.4.3 and renumbering existing Sections 21.4.3 and 21.4.4 to become 21.4.4 and 21.4.5, respectively.

*21.4.3 - Connections that are designed to yield shall be capable of maintaining 80 percent of their design strength at the deformation induced by the design displacement or shall use Type 2 mechanical splices.*

21.4.4 - Elements of the connection that are not designed to yield shall develop at least 1.5  $S_y$ .

21.4.5 - In structures assigned to SDC D, E, or F, wall piers shall be designed in accordance with 21.9 or 21.13 in *ACI 318*.

**1905.1.4 ACI 318, Section 21.9.** This section is not adopted.

**1905.1.9 ACI 318, Section D.3.3.**

**Modify ACI 318 Sections D.3.3.4.2 and D.3.3.5.2 to read as follows:**

D.3.3.4.2 - Where the tensile component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor tensile force associated with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.4.3. The anchor design tensile strength shall be determined in accordance with D.3.3.4.4.

EXCEPTIONS:

1. Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 need not satisfy Section D.3.3.4.3.
2. Anchors in concrete designed to support nonstructural components in accordance with ASCE 7 Section 13.4.2 need not satisfy Section D.3.3.4.3.

D.3.3.5.2 - Where the shear component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor shear force associated with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.5.3. The anchor design shear strength for resisting earthquake forces shall be determined in accordance with D.6.

EXCEPTIONS:

1. D.3.3.5.3 need not apply and the design shear strength in accordance with D.6.2.1(c) need not be computed for anchor bolts attaching wood sill plates of bearing or nonbearing walls of light-frame wood structures to foundations or foundation stem walls provided all of the following are satisfied:
  - 1.1. The allowable in-plane shear strength of the anchor is determined in accordance with AF&PANDS Table 11E for lateral design values parallel to grain.
  - 1.2. The maximum anchor nominal diameter is 5/8 inches (16 mm).
  - 1.3. Anchor bolts are embedded into concrete a minimum of 7 inches (178 mm).
  - 1.4. Anchor bolts are located a minimum of 1 3/4 inches (45 mm) from the edge of the concrete parallel to the length of the wood sill plate.
  - 1.5. Anchor bolts are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the wood sill plate.
  - 1.6. The sill plate is 2-inch or 3-inch nominal thickness.
2. Section D.3.3.5.3 need not apply and the design shear strength in accordance with Section D.6.2.1(c) need not be computed for anchor bolts attaching cold-formed steel track of bearing or nonbearing walls of light-frame construction to foundations or foundation stem walls provided all of the following are satisfied:
  - 2.1. The maximum anchor nominal diameter is 5/8 inches (16 mm).
  - 2.2. Anchors are embedded into concrete a minimum of 7 inches (178 mm).
  - 2.3. Anchors are located a minimum of 1 3/4 inches (45 mm) from the edge of the concrete parallel to the length of the track.
  - 2.4. Anchors are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the track.
  - 2.5. The track is 33 to 68 mil designation thickness. Allowable in-plane shear strength of exempt anchors, parallel to the edge of concrete shall be permitted to be determined in accordance with AISI S100 Section E3.3.1.
3. Anchors in concrete designed to support nonstructural components in accordance with ASCE 7 Section 13.4.2 need not satisfy Section D.3.3.5.3.
4. In light-frame construction, bearing or nonbearing walls, shear strength of concrete anchors less than or

equal to 1 inch (25 mm) in diameter connecting sill plate or track to foundation or foundation stem wall need not satisfy D.3.3.5.3 when the design strength of the anchors is determined in accordance with D.6.2.1(c).

**1905.1.10 ACI 318, Section D.4.2.2.** Delete ACI 318, Section D.4.2.2, and replace with the following:

D.4.2.2 - For anchors with diameters not exceeding 4 in., the concrete breakout strength requirements shall be considered satisfied by the design procedure of D.5.2 and D.6.2. For anchors in shear with diameters exceeding 4 inches, shear anchor reinforcement shall be provided in accordance with the procedures of D.6.2.9.

#### NEW SECTION

**WAC 51-50-1908 Section 1908—Anchorage to concrete—Allowable stress design.** This section is not adopted.

#### NEW SECTION

**WAC 51-50-1909 Section 1909—Anchorage to concrete—Strength design.** This section is not adopted.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-2104 Section 2104—(~~Construction~~) Reserved.**

~~(2104.1 Masonry construction. Masonry construction shall comply with the requirements of Sections 2104.1.1 through 2104.6 and with TMS 602/ACI 530.1/ASCE 6 except as modified by Sections 2104.5 and 2104.6.~~

~~2104.5 TMS 602/ACI 530.1/ASCE 6, Article 3.5 D, grout lift heights. Modify items 1.b, 1.c, and 2.b of Article 3.5 D as follows:~~

~~3.5 D.1.b When the conditions of Articles 3.5 D.1.a.i and 3.5 D.1.a.ii are met but there are intermediate bond beams within the grout pour, limit the grout lift height to the bottom of the lowest bond beam that is more than 5.33 ft. (1.63 m) above the bottom of the lift, but do not exceed a grout lift height of 12.67 ft. (3.86 m).~~

~~3.5 D.1.c When the conditions of Article 3.5 D.1.a.i or Article 3.5 D.1.a.ii are not met, place grout in lifts not exceeding 5.33 ft. (1.63 m).~~

~~3.5 D.2.b When placed in masonry that has not cured for at least 4 hours, place in lifts not exceeding 5.33 ft. (1.63 m).~~

~~2104.6 TMS 602/ACI 530.1/ASCE 6, Article 3.2F, cleanouts. Modify the first sentence of Article 3.2F as follows:~~

~~Provide cleanouts in the bottom course of masonry for each grout pour when the grout pour height exceeds 5.33 ft. (1.63 m).)~~



AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-21070 Section 2107—Allowable stress design.**

**2107.1 General.** The design of masonry structures using *allowable stress design* shall comply with Sections 2106, 2107.2 and the requirements of Chapters 1 and 2 of TMS 402/ACI 530/ASCE 5 except as modified by Sections ((2107.3)) 2107.2 through 2107.5.

~~((2107.2 Load combinations. Structures and portions thereof shall be designed to resist the most critical effects resulting from the load combinations of Section 1605.3. When using the alternative load combinations of Section 1605.3.2 that include wind or seismic loads, allowable stresses are permitted to be increased by one-third.~~

~~**2107.6 TMS 402/ACI 530/ASCE 5, Section 1.16.1 anchor bolts.** Modify the second paragraph of Section 1.16.1 as follows: Anchor bolts placed in the top of grouted cells and bond beams shall be positioned to maintain a minimum of 1/4 inch (6.4 mm) of fine grout between the bolts and the masonry unit or 1/2 inch (12.7 mm) of coarse grout between the bolts and the masonry unit. Anchor bolts placed in drilled holes in the face shells of hollow masonry units shall be permitted to contact the masonry unit where the bolt passes through the face shell, but the portion of the bolt that is within the grouted cell shall be positioned to maintain a minimum of 1/4 inch (6.4 mm) of fine grout between the head or bent leg of the bolt and the masonry unit or 1/2 inch (12.7 mm) of coarse grout between the head or bent leg of the bolt and the masonry unit.))~~

$$P_a = (0.33 f' mAn + 0.65A_{st}F_s) [1-(h/140r)^2] \quad (\text{Equation 2-21})$$

$$P_a = (0.33 f' mAn + 0.65F_sA_{st}) (70r/h)^2 \quad (\text{Equation 2-22})$$

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-2108 Section 2108—((Strength design of masonry:)) Reserved.**

~~((2108.4 TMS 402/ACI 530/ASCE 5, Section 3.1.6. Modify Section 3.1.6 as follows:~~

~~**3.1.6 Headed and bent bar anchor bolts.** All embedded bolts shall be grouted in place, except that 1/4 inch (6.4 mm) diameter bolts are permitted to be placed in bed joints that are at least 1/2 inch (12.7 mm) in thickness.~~

~~**2108.5 TMS 402/ACI 530/ASCE 5, Section 1.16.1 anchor bolts.** Modify the second paragraph of Section 1.16.1 as follows: Anchor bolts placed in the top of grouted cells and bond beams shall be positioned to maintain a minimum of 1/4 inch (6.4 mm) of fine grout between the bolts and the masonry unit or 1/2 inch (12.7 mm) of coarse grout between the bolts and the masonry unit. Anchor bolts placed in drilled holes in the face shells of hollow masonry units shall be permitted to contact the masonry unit where the bolt passes~~

~~**2107.2 TMS 402/ACI 530/ASCE 5, Section 2.1.8.7.1.1, lap splices.** In lieu of Section 2.1.8.7.1.1, it shall be permitted to design lap splices in accordance with Section 2107.2.1.~~

~~**2107.2.1 Lap splices.** The minimum length of lap splices for reinforcing bars in tension or compression,  $l_{d_s}$ , shall be  $l_{d_s} = 0.002d_b f_s$  (**Equation 21-1**)~~

$$\text{For SI: } l_{d_s} \equiv 0.29d_b f_s$$

~~but not less than 12 inches (305 mm). In no case shall the length of the lapped splice be less than 40 bar diameters.~~

where:

$$d_b \equiv \text{Diameter of reinforcement, inches (mm).}$$

$$f_s \equiv \text{Computed stress in reinforcement due to design loads, psi (MPa).}$$

~~In regions of movement where the design tensile stresses in the reinforcement are greater than 80 percent of the allowable steel tension stress,  $F_s$ , the lap length of splices shall be increased not less than 50 percent of the minimum required length, but need not be greater than  $72d_b$ . Other equivalent means of stress transfer to accomplish the same 50 percent increase shall be permitted. Where epoxy coated bars are used, lap length shall be increased by 50 percent.~~

~~**2107.5 TMS 402/ACI 530/ASCE 5.** Modify Section 2.3.4 Axial compression and flexure, as follows:~~

~~**2.3.4.2.1** The compressive force in reinforced masonry due to axial load only shall be permitted to not exceed that given by Equation 2-21 or Equation 2-22.~~

~~For members having an  $h/r$  ratio not greater than 99:~~

~~through the face shell, but the portion of the bolt that is within the grouted cell shall be positioned to maintain a minimum of 1/4 inch (6.4 mm) of fine grout between the head or bent leg of the bolt and the masonry unit or 1/2 inch (12.7 mm) of coarse grout between the head or bent leg of the bolt and the masonry unit.))~~

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-2111 Section 2111—Masonry fireplaces.**

**2111.7 Fireplaces.** Fireplaces shall be provided with each of the following:

1. Tightly fitting flue dampers, operated by a readily accessible manual or approved automatic control.

EXCEPTION: Fireplaces with gas logs shall be installed in accordance with the International Mechanical Code Section 901, except that the standards for liquefied petroleum gas installations shall be NFPA 58 (Liquefied Petroleum Gas Code) and NFPA 54 (National Fuel Gas Code).

2. An outside source for combustion air ducted into the firebox. The duct shall be at least 6 square inches, and shall be provided with an operable outside air duct damper.

EXCEPTION: Washington certified fireplaces shall be installed with the combustion air systems necessary for their safe and efficient combustion and specified by the manufacturer in accordance with ~~((the Washington State Building Standard 31-2 (WAC 51-50-31200) and) IBC Section 2114 (WAC 51-50-2114).~~

3. Site built fireplaces shall have tight fitting glass or metal doors, or a flue draft induction fan or as approved for minimizing back-drafting. Factory built fireplaces shall use doors listed for the installed appliance.

**2111.7.1 Lintel and throat.** Masonry over a fireplace opening shall be supported by a lintel of noncombustible material. The minimum required bearing length on each end of the fireplace opening shall be 4 inches (102 mm). The fireplace throat or damper shall be located a minimum of 8 inches (203 mm) above the top of the fireplace opening.

AMENDATORY SECTION (Amending WSR 04-01-108, filed 12/17/03, effective 7/1/04)

**WAC 51-50-2114 Section 2114—Emission standards.**

**2114.1 Emission Standards for Factory-built Fireplaces.** ~~((After January 1, 1997,))~~ No new or used factory-built fireplace shall be installed in Washington state unless it is certified and labeled in accordance with procedures and criteria specified in ~~((the Washington State Building Code Standard 31-2))~~ ASTM E2558 Standard Test Method for determining particulate matter emission from fires in low mass wood burning fireplaces.

To certify an entire fireplace model line, the internal assembly shall be tested to determine its particulate matter emission performance. Retesting and recertifying is required if the design and construction specifications of the fireplace model line internal assembly change. Testing for certification shall be performed by a Washington state department of ecology (DOE) approved and U.S. Environmental Protection Agency (EPA) accredited laboratory.

**2114.2 Emission Standards for Certified Masonry and Concrete Fireplaces.** ~~((After January 1, 1997, new certified masonry or concrete fireplaces installed in Washington state shall be tested and labeled in accordance with procedures and criteria specified in the Washington State Building Code Standard 31-2.~~

~~To certify an entire fireplace model line, the internal assembly shall be tested to determine its particulate matter emission performance. Retesting and recertifying is required if the design and construction specifications of the fireplace model line internal assembly change. Testing for certification shall be performed by a Washington state department of ecology (DOE) approved and U.S. Environmental Protection Agency (EPA) accredited laboratory.))~~ Masonry and concrete fireplace model lines certified to Washington State Building Code Standard 31-2 prior to July 1, 2013, may retain certification provided the design and construction specifications of the fireplace model line internal assembly do not change.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-2900 Chapter 29—~~((Minimum))~~ Plumbing ~~((fixtures and sanitation facilities))~~ systems.**

**SECTION 2901—GENERAL.**

**2901.1 Scope.** ~~The provisions of this chapter and the state plumbing code shall ((apply to the number of plumbing fixtures and sanitation facilities to be provided in an occupancy regulated by this Code)) govern the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing equipment and systems. Toilet and bathing rooms shall be constructed in accordance with Section 1210. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the state plumbing code.~~

**2901.2 ~~((Minimum requirements.~~ Plumbing fixtures and sanitation facilities shall be provided in the minimum number shown in Table 2902.1 and in this chapter. Where the proposed occupancy is not listed in Table 2902.1, the building official shall determine the fixture and facility requirements based on the occupancy which most nearly resembles the proposed occupancy. The number of occupants used for determining minimum fixtures and facilities shall be computed at the rate of one occupant per unit of net floor area as prescribed in Table 2902.1.**

~~Plumbing fixtures need not be provided for unoccupied buildings or facilities.))~~ **Health codes.** In food preparation, serving and related storage areas, additional fixture requirements may be dictated by health codes.

**SECTION 2902—~~((FIXTURES))~~ MINIMUM PLUMBING FACILITIES.**

**2902.1 Minimum number of fixtures.** Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 2902.1. Types of occupancies not shown in Table 2902.1 shall be determined individually by the building official based on the occupancy which most nearly resembles the proposed occupancy. The number of occupants shall be determined by this code. Occupancy classification shall be determined in accordance with Chapter 3. Plumbing fixtures need not be provided for unoccupied buildings or facilities.

**2902.1.1 Fixture calculations.** To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

EXCEPTION: The total occupant load shall not be required to be divided in half where approved statistical data indicate a distribution of the sexes of other than 50 percent of each sex.

~~((2902.1.4))~~ **2902.1.1.1 Private offices.** Fixtures only accessible to private offices shall not be counted to determine compliance with this section.

**2902.1.1.2 Urinals.** Where urinals are provided, one water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced to less than one quarter (25%) of the minimum specified. For men's facilities serving 26 or more persons, not less than one urinal shall be provided.

**2902.1.1.2 ((Occupancy load distribution.** The occupant load shall be divided equally between the sexes, unless data approved by the building official indicates a different distribution of the sexes.

**2902.1.3 Food preparation areas.** In food preparation, serving and related storage areas, additional fixture requirements may be dictated by health codes.

**2902.1.4 Other requirements.** For other requirements for plumbing facilities, see Section 1210 and Chapter 11.) **Family or assisted-use toilet and bath fixtures.** Fixtures located within family or assisted-use toilet and bathing rooms required by Section 1109.2.1 are permitted to be included in the number of required fixtures for either the male or female occupants in assembly and mercantile occupancies.

**2902.2 ((Access to fixtures.)) Separate facilities.** Where plumbing fixtures are required, separate facilities shall be provided for each sex.

- EXCEPTIONS:
1. Separate facilities shall not be required for *dwelling units and sleeping units.*
  2. Separate facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of 15 or less.
  3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or less.

**2902.2.1 ((Location.** Plumbing fixtures shall be located in each building or conveniently in a building adjacent thereto on the same property.

**2902.2.1.1 Toilet rooms.** Toilet rooms shall not open directly into a room used for the preparation of food for service to the public or residents of Group R-2 boarding homes and residential treatment facilities licensed by Washington state.

**2902.2.2 Multiple tenants.** Access to toilets serving multiple tenants shall be through a common use area and not through an area controlled by a tenant.

**2902.2.3 Multistory buildings.** Required fixtures shall not be located more than one vertical story above or below the area served.

**SECTION 2903 — FACILITIES:**

**2903.3 Facilities.**

**2903.3.1 Requirements.** Separate toilet facilities shall be provided for each sex.

((EXCEPTION: In occupancies serving 15 or fewer persons, one toilet facility designed for use by no more than one person at a time shall be permitted for use by both sexes.

**2903.3.2 Food service establishments.** When customers and employees share the same toilet rooms, customer access to the to the toilet rooms shall not pass through food preparation and unpackaged food storage areas.

**2903.4 Pay facilities.** Required facilities shall be free of charge. Where pay facilities are installed, they shall be in addition to the minimum required facilities.

**2903.5** is not adopted.

**SECTION 2904 — SPECIAL PROVISIONS:**

**2904.1 Dwelling units.** Dwelling units shall be provided with a kitchen sink.

**2904.2 Water closet space requirements.** The water closet stool in all occupancies shall be located in a clear space not less than 30 inches (762 mm) in width, with a clear space in front of the stool of not less than 24 inches (610 mm).

**2904.3 Water.** Each required sink, lavatory, bathtub and shower stall shall be equipped with hot and cold running water necessary for its normal operation.

**2904.4 Drinking fountains:**

**2904.4.1 Number.** Occupant loads over 30 shall have one drinking fountain for the first 150 occupants, then one per each additional 500 occupants.

- EXCEPTIONS:
1. Sporting facilities with concessions serving drinks shall have one drinking fountain for each 1000 occupants.
  2. A drinking fountain need not be provided in a drinking or dining establishment.

**2904.4.2 Multistory buildings.** Drinking fountains shall be provided on each floor having more than 30 occupants in schools, dormitories, auditoriums, theaters, offices and public buildings.

**2904.4.3 Penal institutions.** Penal institutions shall have one drinking fountain on each cell block floor and one on each exercise floor.

**2904.4.4 Location.** Drinking fountains shall not be located in toilet rooms.

**TABLE 2902.1 — MINIMUM PLUMBING FIXTURES<sup>1,2,4,6</sup>**

TYPE OF BUILDING OR OCCUPANCY <sup>8</sup>	WATER CLOSETS (fixtures per person)		LAVATORIES <sup>5</sup> (fixtures per person)		BATHTUB OR SHOWER (fixtures per person)
	MALE <sup>3</sup>	FEMALE	MALE	FEMALE	
For the occupancies listed below, use 30 square feet (2.79 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group A Assembly places—</b>					

TYPE OF BUILDING OR OCCUPANCY <sup>8</sup>	WATER CLOSETS (fixtures per person)		LAVATORIES <sup>5</sup> (fixtures per person)		BATHTUB OR SHOWER (fixtures per person)
	MALE <sup>3</sup>	FEMALE	MALE	FEMALE	
Conference rooms, dining-rooms, drinking establishments, exhibit rooms, gymnasiums, lounges, stages and similar uses including restaurants classified as Group B Occupancies	1:1-25 2:26-75 3:76-125 4:126-200 5:201-300 6:301-400 Over 400, add one fixture for each additional 200 males or 150 females	1:1-25 2:26-75 3:76-125 4:126-200 5:201-300 6:301-400	One per 2 water closets		
For the assembly occupancies listed below, use the number of fixed seating or, where no fixed seating is provided, use 15-square feet (1.39 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
Assembly places— <sup>9</sup> Theaters, auditoriums, convention halls, dance floors, lodge rooms, casinos, and such places which have limited time for fixture use (intermissions)	1:1-100 2:101-200 3:201-400 Over 400, add one fixture for each additional 250 males or 50 females	One per 25 Up to 400	1:1-200 2:201-400 3:401-750 Over 750, add one fixture for each additional 500 persons	1:1-200 2:201-400 3:401-750	
Assembly places— Stadiums, arena and other sporting facilities where fixture use is not limited to intermissions	1:1-100 2:101-200 3:201-400 Over 400, add one fixture for each additional 300 males or 100 females	One per 50 Up to 400	1:1-200 2:201-400 3:401-750 Over 750, add one fixture for each additional 500 persons	1:1-200 2:201-400 3:401-750	
For the assembly occupancies listed below, use the number of fixed seating or, where no fixed seating is provided, use 30-square feet (2.79 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
Worship places Principal assembly area Educational & activity unit	One per 150 One per 125	One per 75 One per 75	One per 2 water closets One per 2 water closets		
For the occupancies listed below, use 200 square feet (18.58 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group B</b> and other clerical or administrative employee accessory use	1:1-15 2:16-35 3:36-55 Over 55, add one for each additional 50 persons	1:1-15 2:16-35 3:36-55	One per 2 water closets		
For the occupancies listed below, use 100 square feet (9.3 m <sup>2</sup> ) per student for the minimum number of plumbing fixtures.					
<b>Group E</b> Schools—for staff use All schools (One staff per 20 students) Schools—for student use Day care Elementary Secondary	1:1-15 2:16-35 3:36-55 Over 55, add one fixture for each additional 40 persons 1:1-20 2:21-50 Over 50, add one fixture for each additional 50 persons One per 30 One per 40	1:1-15 2:16-35 3:36-55 1:1-20 2:21-50 One per 25 One per 30	One per 2 water closets 1:1-20 2:21-50 Over 50, add one fixture for each additional 50 persons One per 2 water closets One per 2 water closets		

TYPE OF BUILDING OR OCCUPANCY <sup>6</sup>	WATER CLOSETS (fixtures per person)		LAVATORIES <sup>5</sup> (fixtures per person)		BATHTUB OR SHOWER (fixtures per person)
	MALE <sup>3</sup>	FEMALE	MALE	FEMALE	
For the occupancies listed below, use 50 square feet (4.65 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures:					
<b>Education facilities other than Group E</b> Others (colleges, universities, adult centers, etc.)	One per 40	One per 25	One per 2 water closets		
For the occupancies listed below, use 2,000 square feet (185.8 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures:					
<b>Group F and Group H</b> Workshop, foundries and similar establishments, and hazardous occupancies	1:1-10 2:11-25 3:26-50  4:51-75 5:76-100 Over 100, add one fixture for each additional 30 persons	1:1-10 2:11-25 3:26-50  4:51-75 5:76-100	One per 2 water closets		One shower for each 15 persons exposed to excessive heat or to skin contamination with irritating materials
For the occupancies listed below, use the designated application and 200 square feet (18.58 m <sup>2</sup> ) per occupant of the general use area for the minimum number of plumbing fixtures:					
<b>Group I<sup>7</sup></b> Hospital waiting rooms	One per room (usable by either sex)		One per room		
Hospital general use areas	1:1-15 2:16-35 3:36-55 Over 55, add one fixture for each additional 40 persons	1:1-15 3:16-35 3:36-55	One per 2 water closets		
Hospital patient rooms: Single Bed	One adjacent to and directly accessible from		One per toilet room		One per toilet room
Isolation	One adjacent to and directly accessible from		One per toilet room		One per toilet room
Multibed	One per 4 patients		One per 4 patients		One per 8 patients
Long term	One per 4 patients		One per 4 patients		One per 15 patients
Jails and reformatories Cell	One per cell		One per cell		
Exercise room	One per exercise room		One per exercise room		
Other institutions (on each occupied floor)	One per 25	One per 25	One per 2 water closets		One per 8
For the occupancies listed below, use 200 square feet (18.58 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures:					
<b>Group M</b> Retail or wholesale stores	1:1-50 2:51-100 3:101-400  4:201-300 5:301-400 Over 400, add one fixture for each additional 300 males or 150 females	1:1-50 2:51-100 3:101-200  4:201-300 5:301-400	One per 2 water closets		

TYPE OF BUILDING OR OCCUPANCY <sup>6</sup>	WATER CLOSETS (fixtures per person)		LAVATORIES <sup>5</sup> (fixtures per person)		BATHTUB OR SHOWER (fixtures per person)
	MALE <sup>3</sup>	FEMALE	MALE	FEMALE	
For Group R Occupancies containing dwelling units or guest rooms, use the table below. For dormitories, use 200 square feet (18.58 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group R</b>					
Dwelling units	One per dwelling unit		One per dwelling unit		One per dwelling unit
Hotel, motel, and boarding-house guest rooms	One per guest room		One per guest room		One per guest room
Boarding homes licensed by the department of social and health services	One per 8	One per 8	One per 8	One per 8	One per 12
Dormitories	One per 10 Over 10, add one fixture for each additional 25 males and over 8, add one for each additional 20 females	One per 8	One per 12 Over 12, add one fixture for each additional 20 males and one for each additional 15 females	One per 12	One per 8 For females, add one additional unit per each additional 30. Over 150 persons, add one additional unit per each additional 20 persons
For the occupancies listed below, use 5,000 square feet (464.5 m <sup>2</sup> ) per occupant for the minimum number of plumbing fixtures.					
<b>Group S</b>	1:1-10	1:1-10	One per 40 occupants of each sex		One shower for each 15 persons exposed to excessive heat or to skin contamination with poisonous, infectious or irritating materials
Warehouses	2:11-25 3:26-50 4:51-75 5:76-100 Over 100, add one for each 30 persons	2:11-25 3:26-50 4:51-75 5:76-100			

<sup>1</sup>The figures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction thereof.

<sup>2</sup>For occupancies not shown, see Section 2901.2.

<sup>3</sup>Where urinals are provided, one water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced to less than one quarter (25%) of the minimum specified. For men's facilities serving 26 or more persons, not less than one urinal shall be provided.

<sup>4</sup>For drinking fountains, see Section 2904.4.

<sup>5</sup>Twenty-four inches (610 mm) of wash sink or 18 inches (457 mm) of a circular basin, when provided with water outlets for such space, shall be considered equivalent to one lavatory.

<sup>6</sup>For when a facility may be usable by either sex, see Section 2903.3.1.

<sup>7</sup>See WAC 246-320 for definitions, other fixtures and equipment for hospitals.

<sup>8</sup>When a space is accessory to or included as a part of a different occupancy group per Chapter 3, the area per occupant for the minimum plumbing fixture number is to be determined by its own specific use or purpose, not by that of the building's occupancy group.

<sup>9</sup>In multiplex movie theaters, where shows are scheduled at different times, the number of occupants for toilet fixture use may be based upon one-half (50%) of the total in all the auditoriums, but no less than the number in the largest auditorium.)

**Family or assisted-use toilet facilities serving as separate facilities.** Where a building or tenant space requires a separate toilet facility for each sex and each toilet facility is required to have only one water closet, two family/assisted-

use toilet facilities shall be permitted to serve as the required separate facilities. Family or assisted-use toilet facilities shall not be required to be identified for exclusive use by either sex as required by Section 2902.4.

**2902.3 Employee and public toilet facilities.** Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. The number of plumbing fixtures located within the required toilet facilities shall be provided in accordance with Section 2902.1 for all users. Employees shall be provided with toilet facilities in all occupancies. Employee toilet facilities shall either be separate or combined employee and public toilet facilities.

**EXCEPTION:** Public toilet facilities shall not be required in open or enclosed parking garages. Toilet facilities shall not be required in parking garages where there are no parking attendants.

**2902.3.1 Access.** The route to the public toilet facilities required by Section 2902.3 shall not pass through kitchens, food preparation areas, unpackaged food storage areas, storage rooms or closets. Access to the required facilities shall be from within the building or from the exterior of the building. Access to toilets serving multiple tenants shall be through a common use area and not through an area controlled by a tenant. All routes shall comply with the accessibility require-

ments of this code. The public shall have access to the required toilet facilities at all times that the building is occupied. For other requirements for plumbing facilities, see Chapter 11.

**2902.3.1.1 Food preparation areas.** Toilet rooms shall not open directly into a room used for the preparation of food for service to the public or residents of Group R-2 boarding homes and residential treatment facilities licensed by Washington state.

**2902.3.2 Location of toilet facilities in occupancies other than malls.** In occupancies other than covered and open mall buildings, the required *public* and employee toilet facilities shall be located in each building not more than one story above or below the space required to be provided with toilet facilities, or conveniently in a building adjacent thereto on the same property, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

EXCEPTION: The location and maximum travel distances to required employee facilities in factory and industrial occupancies are permitted to exceed that required by this section, provided that the location and maximum travel distance are *approved*.

**2902.3.3 Location of toilet facilities in malls.** In covered and open mall buildings, the required *public* and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 300 feet (91,440 mm). In mall buildings, the required facilities shall be based on total square footage (m<sup>2</sup>) within a covered mall building or within the perimeter line of an open mall building, and facilities shall be installed in each individual store or in a central toilet area located in accordance with this section. The maximum travel distance to central toilet facilities in mall buildings shall be measured from the main entrance of any store or tenant space. In mall buildings, where employees' toilet facilities are not provided in the individual store, the maximum travel distance shall be measured from the employees' work area of the store or tenant space.

**2902.3.4 Pay facilities.** Where pay facilities are installed, such facilities shall be in excess of the required minimum facilities. Required facilities shall be free of charge.

**2902.3.5 Door locking.** Where a toilet room is provided for the use of multiple occupants, the egress door for the room shall not be lockable from the inside of the room. This section does not apply to family or assisted-use toilet rooms.

**2902.4 Signage.** Required public facilities shall be designated by a legible sign for each sex. Signs shall be readily visible and located near the entrance to each toilet facility. Signs for accessible toilet facilities shall comply with Section 1110.

**2902.4.1 Directional signage.** Directional signage indicating the route to the public facilities shall be posted in accordance with Section 3107. Such signage shall be located in a *corridor* or aisle, at the entrance to the facilities for customers and visitors.

**2902.5 Drinking fountain location.** Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located within a travel distance of 500 feet of the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet. Drinking fountains shall be located on an accessible route. Drinking fountains shall not be located in toilet rooms.

**2902.5.1 Drinking fountain number.** Occupant loads over 30 shall have one drinking fountain for the first 150 occupants, then one per each additional 500 occupants.

- EXCEPTIONS:
1. Sporting facilities with concessions serving drinks shall have one drinking fountain for each 1000 occupants.
  2. A drinking fountain need not be provided in a drinking or dining establishment.

**2902.5.2 Multistory buildings.** Drinking fountains shall be provided on each floor having more than 30 occupants in schools, dormitories, auditoriums, theaters, offices and public buildings.

**2902.5.3 Penal institutions.** Penal institutions shall have one drinking fountain on each cell block floor and one on each exercise floor.

**2902.6 Dwelling units.** Dwelling units shall be provided with a kitchen sink.

**2902.7 Water closet space requirements.** The water closet stool in all occupancies shall be located in a clear space not less than 30 inches (762 mm) in width, with a clear space in front of the stool of not less than 24 inches (610 mm).

**2902.8 Water.** Each required sink, lavatory, bathtub and shower stall shall be equipped with hot and cold running water necessary for its normal operation.

**SECTION 2903—RESERVED.**

**SECTION 2904—RESERVED.**

**Table 2902.1  
Minimum Number of Required Plumbing Fixtures<sup>a</sup>**

No.	Classification	Occupancy	Description	Water Closets		Lavatories		Bathtubs /Showers
				Male	Female	Male	Female	
1	Assembly	A-1 <sup>d</sup>	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		=

No.	Classification	Occupancy	Description	Water Closets		Lavatories		Bathtubs /Showers
				Male	Female	Male	Female	
		A-2 <sup>d</sup>	Nightclubs, bars, taverns, dance halls and buildings for similar purposes	1 per 40	1 per 40	1 per 75		=
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200		=
		A-3 <sup>d</sup>	Auditoriums without permanent seating, are galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200		=
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750		=
			Places of worship and other religious services	1 per 150	1 per 75	1 per 200		=
		A-4	Coliseums, arenas, skating rinks, pools, and tennis courts for indoor sporting events and activities	1 per 75 for first 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for first 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200	1 per 150	=
		A-5	Stadiums amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for first 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for first 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200	1 per 150	=
2	Business	B	Buildings for transaction of business, professional services, other services involving merchandise, office buildings, banks, light and industrial and similar uses	1 per 25 for first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for first 80 and 1 per 80 for remainder exceeding 80		=
3	Educational	E	Educational facilities	1 per 50	1 per 30	1 per 100	1 per 60	=
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials	1 per 100		1 per 100		See Section 411 of the <i>International Plumbing Code</i>
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8
		I-2	Hospitals, ambulatory nursing home care recipient <sup>b</sup>	1 per room <sup>c</sup>		1 per room <sup>c</sup>		1 per 15
			Employees, other than residential care <sup>b</sup>	1 per 25		1 per 35		=
			Visitors other than residential care	1 per 75		1 per 100		=
		I-3	Prisons <sup>b</sup>	1 per cell		1 per cell		1 per 15
Reformatories, detention centers and correctional centers <sup>b</sup>	1 per 15		1 per 15		1 per 15			



No.	Classification	Occupancy	Description	Water Closets		Lavatories		Bathtubs /Showers
				Male	Female	Male	Female	
			Employees <sup>b</sup>	1 per 25		1 per 35		—
		I-4	Adult day care and child day care	1 per 15		1 per 15		1
6	Mercantile	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		—
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit		1 per sleeping unit
		R-2	Dormitories, fraternities, sororities and boarding houses (not transient)	1 per 10		1 per 10		1 per 8
			Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit
		R-3	One- and two-family dwellings	1 per dwelling unit		1 per 10		1 per dwelling unit
			Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8
		R-4	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8
8	Storage	S-1 S-2	Structures for the storage of goods, warehouses, storehouses and freight depots, low and moderate hazard	1 per 100		1 per 100		See Section 411 of the <i>International Plumbing Code</i>

<sup>a</sup>The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code.

<sup>b</sup>Toilet facilities for employees shall be separate from facilities for inmates or care recipients.

<sup>c</sup>A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted where such room is provided with direct access from each patient sleeping unit and with provisions for privacy.

<sup>d</sup>The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.

<sup>e</sup>The minimum number of required drinking fountains shall comply with Table 2902.1 and Chapter 11.

<sup>f</sup>Drinking fountains are not required for an occupant load of 15 or fewer.

<sup>g</sup>For business and mercantile occupancies with an occupant load of 15 or fewer, service sinks shall not be required.

**AMENDATORY SECTION** (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-3001 Reserved.**

**Section 3002—Hoistway enclosures.**

**3002.4 Elevator car to accommodate ambulance stretcher.** In buildings four stories in height or more, and in buildings which are required to have an elevator and contain Group R-1, R-2 or I Occupancies on a level other than the exit discharge level, at least one elevator shall be provided for

fire department emergency access to all floors. ((Such)) The elevator car shall be of such a size and arrangement to accommodate a 24-inch by 84-inch (610 mm by 2134 mm) ambulance stretcher with not less than 5-inch (127 mm) radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) high and shall be placed inside on both sides of the hoistway door frame.

**AMENDATORY SECTION** (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-3108 Section 3108—((Telecommunications and broadcast towers.)) Reserved.**

~~(3108.1 General.~~ Towers shall be designed and constructed in accordance with the provisions of TIA-222. In Section 2.6.6.2, the extent of Topographic Category 2, escarpments, shall extend 16 times the height of the escarpment. Towers shall be designed for seismic loads. The exceptions to the requirement of seismic design listed in Section 2.7.3 shall not apply. Class I structures per Table 2-1 of the standard may be exempted from seismic design, if approved by the building official.

**EXCEPTION:** Single free-standing poles used to support antennas not greater than 75 feet (22,860 mm), measured from the top of the pole to grade, shall not be required to be noneombustible-))

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-3401 Section 3401—General.**

**3401.5 Alternative compliance.** Work performed in accordance with the ~~((2009))~~ 2012 International Existing Building Code as amended in WAC 51-50-480000 shall be deemed to comply with the provisions of this chapter.

**3401.6 Dangerous conditions.** The building official shall have the authority to require the elimination of conditions deemed dangerous.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-3411 Section 3411—Accessibility for existing buildings.**

**3411.7 Alterations affecting an area containing a primary function.** Where an alteration affects the accessibility to, or contains an area of primary function, the route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities, telephones or drinking fountains serving the area of primary function.

EXCEPTIONS:

1. The costs of providing the accessible route are not required to exceed 20 percent of the costs of the alteration affecting the area of primary function.
2. This provision does not apply to alterations limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to alterations limited solely to mechanical systems, electrical systems, installation or alteration of fire protection systems and abatement of hazardous materials.
4. This provision does not apply to alterations undertaken for the primary purpose of increasing the accessibility of ~~((an existing building,))~~ a facility ~~((or element)).~~
5. This provision does not apply to altered areas limited to Type B dwellings and sleeping units.

**3411.8.11 Toilet rooms.** Where it is technically infeasible to alter existing toilet and bathing facilities to be accessible, an accessible family or assisted use toilet or bathing ~~((facility))~~ room constructed in accordance with Section 1109.2.1 is permitted. The family or assisted use ~~((facility))~~ toilet or bathing room shall be located on the same floor and in the same area as the existing ~~((facility))~~ toilet or bathing rooms. The number of toilet ~~((facilities))~~ or bathing rooms and water closets required by the State Building Code is permitted to be reduced by one, in order to provide accessible features.

NEW SECTION

**WAC 51-50-3500 Chapter 35—Reference standards.**

**Add new standards to Chapter 35:**

**ASTM**

C150-12 Specification for Portland Cement.  
C595-12 Specification for Blended Hydraulic Cement.  
C1157-11 Standard Performance Specification for Hydraulic Cement.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-480000 ~~((2009))~~ 2012 International Existing Building Code.**

**INTERNATIONAL EXISTING BUILDING CODE  
~~((2009))~~ 2012 EDITION**

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-480101 Section 101—General.**

**101.4 Applicability.** When requested by the permit applicant, this code shall apply to the repair, alteration, change of occupancy and relocation of buildings existing on the date of adoption of this code, regardless of occupancy, subject to the criteria of Sections 101.4.1 and 101.4.2. When compliance with this code has not been requested, compliance with the State Building Code as adopted in Title 51 WAC shall be demonstrated.

**101.4.1 Buildings not previously occupied.** A building or portion of a building that has not been previously occupied or used for its intended purpose in accordance with the laws in existence at the time of its completion shall comply with the provisions of the State Building Code adopted in Title 51 WAC, for new construction or with any current permit for such occupancy.

**101.4.2 Buildings previously occupied.** The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Fire Code, or as deemed necessary by the code official to mitigate an unsafe building. For the purpose of this section, "unsafe building" is not to be construed as mere lack of compliance with the current code.

~~((401.7))~~ **101.6 Appendices.** The code official is authorized to require rehabilitation and retrofit of buildings, structures, or individual structural members in accordance with the appendices of this code if such appendices have been individually adopted. Appendix A, Guidelines for the Seismic Retrofit of Existing Buildings, is hereby adopted as part of this code without any specific adoption by the local jurisdiction.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-480102 Section 102—Applicability.**

~~((402.4.1))~~ **102.4.1.1 Fire prevention.** The provisions of the International Fire Code shall apply to matters affecting or relating to structures, processes and premises regarding: The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises

from occupancy or operation except as specifically provided for in this Code.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-480307 Section 307—(~~Change of occupancy~~) Reserved.**

~~((**307.1 Conformance.** No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancy or in a different group of occupancies, unless such building is made to comply with the requirements of the International Building Code for such division or group of occupancy. Subject to the approval of the building official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all the requirements of the International Building Code for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use. The hazard tables of Chapter 9 may be used to demonstrate the relative fire and life risk of the existing and the new proposed uses.))~~

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-480405 Section 405—(~~Alteration—Level 3~~) Reserved.**

~~((**405.1 Scope.** Level 3 alterations apply where the work area exceeds 50% of the floor area of the building.))~~

#### NEW SECTION

##### **WAC 51-50-480407 Change of occupancy.**

**407.1 Conformance.** No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancy or in a different group of occupancies, unless such building is made to comply with the requirements of the International Building Code for such division or group of occupancy. Subject to the approval of the building official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all the requirements of the International Building Code for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use. The hazard tables of Chapter 10 may be used to demonstrate the relative fire and life risk of the existing and the new proposed uses.

#### NEW SECTION

##### **WAC 51-50-480505 Alteration—Level 3.**

**505.1 Scope.** Level 3 alterations apply where the work area exceeds 50% of the floor area of the building.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-480607 Section 607—(~~Energy conservation~~) Reserved.**

~~((**607.1 Minimum requirements.** Level 1 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11 WAC).))~~

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-480704 Section 704—(~~Fire protection~~) Reserved.**

~~((**704.1 Scope.** The requirements of this section shall be limited to work areas in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located or otherwise beyond the work area.~~

**EXCEPTION:** For Level 2 alteration projects in which the fire protection requirements constitute an excessive burden, the fire protection requirements may be modified or waived by the fire code official.

~~**704.2 Automatic sprinkler systems.** Automatic sprinkler systems shall be provided in accordance with the requirements of Sections 704.2.1 through 704.2.5. Installation requirements shall be in accordance with the International Fire Code and NFPA 13 or NFPA 13R.~~

#### NEW SECTION

##### **WAC 51-50-480707 Energy conservation.**

**707.1 Minimum requirements.** Level 1 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11 WAC).

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-480711 Section 711—(~~Energy conservation~~) Reserved.**

~~((**711.1 Minimum requirements.** Level 2 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11 WAC).))~~

#### NEW SECTION

##### **WAC 51-50-480804 Fire protection.**

**804.1 Scope.** The requirements of this section shall be limited to work areas in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located or otherwise beyond the work area.

**EXCEPTION:** For Level 2 alteration projects in which the fire protection requirements constitute an excessive burden, the fire protection requirements may be modified or waived by the fire code official.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-480807 Section 807—(~~Structural.~~) Reserved.**

~~((807.4.1 Evaluation and analysis. An engineering evaluation and analysis that establishes the structural adequacy of the altered structure shall be prepared by a registered design professional and submitted to the code official. For structures assigned to Seismic Design Category D, the registered design professional shall submit to the code official a seismic evaluation report of the existing building based on one of the procedures specified in Section 101.5.4.2. This seismic evaluation report shall not be required for buildings in compliance with the benchmark building provisions of ASCE 31, Section 3.2.~~

~~**807.4.2 Substantial structural alteration.** Any building or structure undergoing substantial improvement shall have an evaluation and analysis to demonstrate that the altered building or structure complies with the *International Building Code* for wind loading and with reduced *International Building Code* level seismic forces as specified in Section 101.5.4.2 for seismic loading. For seismic considerations, the analysis shall be based on one of the procedures specified in Section 101.5.4.~~

~~**807.4.3 Limited structural alteration.** Where any building or structure undergoes less than substantial improvement, the evaluation and analysis shall demonstrate that the altered building or structure complies with the loads applicable at the time the building was constructed.)~~

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-480808 Section 808—(~~Energy conservation.~~) Reserved.**

~~((808.1 Minimum requirements. Level 3 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11 WAC).))~~

NEW SECTION

**WAC 51-50-480811 Energy conservation.**

**811.1 Minimum requirements.** Level 2 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11 WAC).

NEW SECTION

**WAC 51-50-480907 Structural.**

**907.4.1 Evaluation and analysis.** An engineering evaluation and analysis that establishes the structural adequacy of the altered structure shall be prepared by a registered design professional and submitted to the code official. For structures assigned to Seismic Design Category D, the registered design professional shall submit to the code official a seismic evaluation report of the existing building based on one of the procedures specified in Section 301.1.4.2. This seismic eval-

uation report shall not be required for buildings in compliance with the benchmark building provisions of ASCE 31, Section 3.2.

NEW SECTION

**WAC 51-50-480908 Energy conservation.**

**908.1 Minimum requirements.** Level 3 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11 WAC).

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-480912 Section 912—(~~Change of occupancy classification.~~) Reserved.**

~~((912.1.1 Compliance with Chapter 8. The requirements of Chapter 8 shall be applicable throughout the building for the new occupancy classification based on the separation conditions set forth in Sections 912.1.1.1 and 912.1.1.2. All existing buildings with a change of occupancy classification shall comply with the seismic provisions of Section 907.3.))~~

NEW SECTION

**WAC 51-50-481012 Change of occupancy classification.**

**1012.1.1 Compliance with Chapter 9.** The requirements of Chapter 9 shall be applicable throughout the building for the new occupancy classification based on the separation conditions set forth in Sections 1012.1.1.1 and 1012.1.1.2. All existing buildings with a change of occupancy classification shall comply with the seismic provisions of Section 1007.3.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-481101 Chapter 11—(~~Historic buildings—Section 1101—General.~~) Reserved.**

~~((1101.1 Scope. It is the intent of this chapter to provide means for the preservation of historic buildings as defined in Chapter 2. It is the purpose of this chapter to encourage cost-effective preservation of original or restored architectural elements and features and to provide a historic building that will result in a reasonable degree of safety, based on accepted life and fire safety practices, compared to the existing building. Historical buildings shall comply with the provisions of this chapter relating to their repair, alteration, relocation and change of occupancy.))~~

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-481103 Section 1103—(~~Fire safety.~~) Reserved.**

~~((1103.7 One-hour fire-resistant assemblies. Where one-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction~~

or occupancy, where the existing wall and ceiling finish is wood lath or metal lath and plaster.)

**1103.9 ((Stairway railings.** Historically significant stairways shall be accepted without complying with the handrail and guard requirements. Existing handrails and guards at all stairs shall be permitted to remain, provided they are not structurally dangerous.)) **Reserved.**

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-481104 ((Alterations.)) Reserved.**

~~((1104.1 Accessibility requirements.~~ The provisions of Sections 605 and 706 shall apply to buildings and facilities designated as historic structures that undergo alterations, unless technically infeasible. Where compliance with the requirements for accessible routes, ramps, entrances, or toilet facilities would threaten or destroy the historic significance of the building or facility, as determined by the professional responsible for the historical documentation of the project, the alternative requirements of Sections 1104.1.1 through 1104.1.4 for that element shall be permitted.)

AMENDATORY SECTION (Amending WSR 07-01-091, filed 12/19/06, effective 7/1/07)

**WAC 51-50-481105 Section 1105—((Change of occupancy.)) Reserved.**

~~((1105.10 One hour fire resistant assemblies.~~ Where one-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood lath or metal lath and plaster.

~~**1105.14 Natural light.** When it is determined by the professional responsible for the historical documentation of the project that compliance with the natural light requirements of Section 911.1 will lead to loss of historic character or historic materials in the building, the existing level of natural lighting shall be considered acceptable.)~~

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-481201 Section 1201—Historic buildings—General.**

~~((1201.1 Conformance.~~ Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code, the International Residential Code (chapter 51-51 WAC), the International Mechanical Code (chapter 51-52 WAC), the International Fire Code (chapter 51-54 WAC), the Uniform Plumbing Code and Standards (chapters 51-56 and 51-57 WAC), the Washington State Energy Code (chapter 51-11 WAC) and the Washington State Ventilation and Indoor Air Quality Code (chapter 51-13 WAC) for new buildings or structures.

((EXCEPTION: Group R-3 buildings or structures are not required to comply if:

1. The original occupancy classification is not changed; and
2. The original building is not substantially remodeled or rehabilitated.

For the purposes of this section, a building shall be considered to be substantially remodeled when the costs of remodeling exceed 60 percent of the value of the building exclusive of the costs relating to preparation, construction, demolition or renovation of foundations.)

**1201.1 Scope.** It is the intent of this chapter to provide means for the preservation of historic buildings as defined in Chapter 2. It is the purpose of this chapter to encourage cost-effective preservation of original or restored architectural elements and features and to provide a historic building that will result in a reasonable degree of safety, based on accepted life and fire safety practices, compared to the existing building. Historical buildings shall comply with the provisions of this chapter relating to their repair, alteration, relocation and change of occupancy.

~~SECTION 1202—((REQUIREMENTS.~~ This section not adopted.) **Reserved.**

NEW SECTION

**WAC 51-50-481203 Fire safety.**

**1203.9 Stairway railings.** Historically significant stairways shall be accepted without complying with the handrail and guard requirements. Existing handrails and guards at all stairs shall be permitted to remain, provided they are not structurally dangerous.

NEW SECTION

**WAC 51-50-481204 Alterations.**

**1204.1 Accessibility requirements.** The provisions of Sections 705, 806, and 906, as applicable, shall apply to facilities designated as historic structures that undergo alterations, unless technically infeasible. Where compliance with the requirements for accessible routes, entrances, or toilet rooms would threaten or destroy the historic significance of the building or facility, as determined by the professional responsible for the historical documentation of the project, the alternative requirements of Sections 1204.1.1 through 1204.1.4 for that element shall be permitted.

EXCEPTION: Type B dwelling or sleeping units required by Section 1107 of the International Building Code are not required to be provided in historical buildings.

NEW SECTION

**WAC 51-50-481205 Change of occupancy.**

**1205.10 One-hour fire-resistant assemblies.** Where one-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood lath or metal lath and plaster.

**1205.14 Natural light.** When it is determined by the professional responsible for the historical documentation of the

project that compliance with the natural light requirements of Section 1011.1 will lead to loss of historic character or historic materials in the building, the existing level of natural lighting shall be considered acceptable.

AMENDATORY SECTION (Amending WSR 10-03-097, filed 1/20/10, effective 7/1/10)

**WAC 51-50-481301 ((Reserved-)) Relocated or moved buildings—General.**

**1301.1 Conformance.** Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code, the International Residential Code (chapter 51-51 WAC), the International Mechanical Code (chapter 51-52 WAC), the International Fire Code (chapter 51-54 WAC), the Uniform Plumbing Code and Standards (chapters 51-56 and 51-57 WAC), the Washington State Energy Code (chapter 51-11 WAC) and the Washington State Ventilation and Indoor Air Quality Code (chapter 51-13 WAC) for new buildings or structures.

EXCEPTION: Group R-3 buildings or structures are not required to comply if:

1. The original occupancy classification is not changed; and
2. The original building is not substantially remodeled or rehabilitated.

For the purposes of this section, a building shall be considered to be substantially remodeled when the costs of remodeling exceed 60 percent of the value of the building exclusive of the costs relating to preparation, construction, demolition or renovation of foundations.

NEW SECTION

**WAC 51-50-481302 Requirements.**

This section is not adopted.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 51-50-31200	Section 31-2—Standard test method for particulate emissions from fireplaces.
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**WSR 12-16-091  
PROPOSED RULES  
BUILDING CODE COUNCIL**

[Filed July 31, 2012, 3:54 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-03-105.

Title of Rule and Other Identifying Information: Adoption and amendment of the 2012 International Residential Code (IRC), chapter 51-51 WAC.

Hearing Location(s): Center Place Event Center, 2426 North Discovery Place, Spokane Valley, WA 99216, on September 14, 2012, at 10 a.m.; and at the DES Presentation Room, 1500 Jefferson S.E., Olympia, WA 98504, on September 21, 2012, at 10 a.m.

Date of Intended Adoption: November 9, 2012.

Submit Written Comments to: Ray Allshouse, Chair, State Building Code Council (SBCC), P.O. Box 41449, Olympia, WA 98504-1449, e-mail sbcc@ga.wa.gov, fax (360) 586-9088, by September 21, 2012.

Assistance for Persons with Disabilities: Contact Peggy Bryden by September 7, 2012, (360) 407-9280.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules adopt the most recently published edition of the IRC and make changes to the state amendments to this code.

**Summary of Change in Existing Rules:**

1. Section R102 strikes reference to the state ventilation and indoor air quality code. Ventilation and indoor air quality are now covered under the residential and mechanical codes.

2. Section R202 Definitions contains amendments to the definitions in the code to be consistent with state licensing rules and changes in the 2012 IRC. Significant proposed amendments to definitions: "Attic, habitable" clarifies application of state amendment; "dwelling unit" includes accessory dwelling units; "mezzanine" is a new definition; "source specific ventilation" is deleted as the 2012 IRC uses the term "local exhaust."

3. Section R301 Design criteria is a new state amendment containing criteria for mezzanines.

4. State amendments to Section R302 Fire-resistant construction are modified to address changes in the 2012 IRC.

5. Section R303 Light ventilation and heating is modified to include state specific ventilation requirements; to retain state rules for stairway illumination; and to modify emission standards for solid fuel burning devices to be consistent with department of ecology rules.

6. Section R314 Smoke alarms is modified to be consistent with the 2012 IRC.

7. Section R315 Carbon monoxide alarms is modified to be consistent with state law and technical advisory group recommendations.

8. Section R325 Adult family homes is modified to customize grab bar requirements and other provisions consistent with the licensing rules.

9. Section R328 is a new section added to cover mezzanines.

10. Sections R403 Footings and R404 Foundations and retaining walls state amendments are deleted or modified to be consistent with the 2012 IRC.

11. Section R408 Under floor ventilation has a proposed amendment to modify method of spacing vent openings.

12. Section R501 Floors-general is a clarification to a new requirement for fire protection of floors.

13. Section R507 Decks provides an alternate method for deck connection.

14. Section R602 Wood wall framing state amendments are deleted or modified to be consistent with the 2012 IRC.

15. Section R612 Exterior windows and doors maintains an exemption for small business.

16. Section R703 Exterior wall covering amends the 2012 IRC related to flashing.

17. Section R806 Roof ventilation state amendment is deleted. 2012 IRC maintains intent.

18. Section R903 Roof drainage state amendments are modified to be consistent with the 2012 IRC.

19. Sections R1001 Masonry fireplaces; R1002 Masonry heaters; R1004 Factory built fireplaces are modified to be consistent with department of ecology rules.

20. Section M1201 Mechanical administration scope adopts new editions of NFPA standards for liquefied petroleum gas (LPG).

21. Section M1301 General mechanical system requirements amends new 2012 IRC requirement for identification of pipe.

22. Section M1507 Mechanical ventilation incorporates state ventilation requirements to be consistent with the 2012 IRC. Replaces M1508 in current code.

23. Section 1601 Duct construction state amendments are modified to be consistent with the 2012 IRC.

24. Section 1701 Combustion air reference to Chapter 10 is corrected.

25. Chapter 20 Boilers and water heaters state amendment is deleted.

26. Appendix R is modified to contain direct reference to 2012 IRC P2904 Dwelling Unit Fire Sprinkler Systems.

The remaining changes are in response to editorial changes or reorganizational moves in the 2012 IRC.

Reasons Supporting Proposal: RCW 19.27.031 and 19.27.074.

Statutory Authority for Adoption: RCW 19.27.031 and 19.27.074.

Statute Being Implemented: Chapters 19.27 and 34.05 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: The council is seeking comments on the issues proposed in the rules shown below.

Name of Proponent: SBCC, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Tim Nogler, 1500 Jefferson S.E., P.O. Box 41449, Olympia, WA, (360) 407-9277; and Enforcement: Local jurisdictions.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

#### Small Business Economic Impact Statement

**Executive Summary:** The proposed rule adopts the updated 2012 edition of the IRC. Since 1985 the SBCC has been responsible to update to new editions of the building code. RCW 19.27.074. The IRC is updated every three years. The process of updating code editions by the model code organization involves interest groups within the design and construction industry and from governmental organizations.

The 2012 IRC contains about seventy-three significant changes from the 2009 IRC. Washington state does not adopt the energy, plumbing or electrical provisions of the IRC. According to the *Proposed changes to the 2009 Edition of the IRC*, published by the International Code Council (ICC), less than five percent of the significant amendments result in an increase in cost of construction. The primary effect of the amendments is improvement of the code. The objective of the amendments is to create a consistent regulatory system.

The update will result in some cost outlay for small businesses in construction industries for specific building projects, for a transition period.

Other small businesses would see an increase in revenue.

The overall impact would be positive, because a majority of the amendments in the new edition either reduce requirements or provide more clarity, reducing review and approval times. The degree of impact diminishes during the code cycle as rules become familiar and construction practices adjust and are accepted.

The SBCC appointed a technical advisory group (TAG) to review the 2012 IRC significant changes, the applicability of the existing statewide amendments, and ten new proposed state amendments. The TAG included all sectors of the construction industry and regulatory community, including small businesses. All TAG meetings are open to the public and small businesses are notified and participate in the review.

The rules are anticipated to be job neutral, although there would be some temporary work for installation jobs for certain trades people.

Where the SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost. The proposed rule includes a definition of small business and provides exceptions for compliance with the updated regulation.

**Section I: Introduction/Compliance with the Rules:** The proposed rule adopts the 2012 edition of the IRC. The 2009 IRC with state amendments is currently in effect. (Chapter 51-51 WAC.)

State amendments to the code address specific issues, for example:

- Washington state facility licensing requirements.
- Definition of dwelling units to include small businesses.
- Local adoption for residential fire sprinklers.
- Application of exterior cladding.

For a complete list of all state amendments see this link <http://apps.leg.wa.gov/wac/default.aspx?cite=51-51>.

The amendments add flexibility and clarity to the code and coordinate rules, and represent a savings for small business building owners and operators.

The 2012 edition contains about seventy-five significant revisions from the current 2009 edition of the IRC. The revisions address primarily editorial changes to clarify the code and reduce the reporting, record-keeping and other compliance requirements. The IRC currently in effect requires issuance of a building permit for construction projects, review and approval of plans, and field inspections. The new edition of the Building Code primarily improves the building regulatory process by resolving inconsistencies and problems with

previous editions. Where testing and installation has demonstrated code requirements add no benefit, the requirements are reduced or deleted.

The 2012 IRC does contain significant modifications, requiring additional expenditure by building owners to maintain compliance. The SBCC amended these provisions to address cost concerns.

**Section II: Compliance Costs for Washington Businesses:** Washington businesses will incur costs to purchase new code books and for training.

The 2012 edition of the IRC costs \$88 on CD and \$98.75 for a loose leaf binder. The codes are also available to view on-line at no cost. There is also an on-line subscription service available, at a per user cost.

The costs for compliance with the 2012 IBC are specific to the project and the plan.

1. Section R302 - Fire Resistant Construction

The proposed rule requires fire protection for single-family homes at a five foot separation from lot lines. An amendment allows unprotected projections into the fire separation distance where eaves are provided with fire blocking. This amendment has support of the fire service and the small business members of the TAG.

2. R303.4 - Minimum Ventilation Performance

Whole house ventilation for the 2012 rule provides an amended method for sizing intermittent systems.

3. Section R326 - Adult Family Homes

The proposed rule amends provisions related to adult family homes, long-term care licensed by the state department of social and health services.

4. R501.3 - Fire Protection of Floors

A new provision in the 2012 IRC requires fire protection of floors. An option for using dimensional lumber for this requirement is clarified to allow compliance and reduce cost impact while maintaining the intent of the code.

5. Alternate Ledger Connections 2012 IRC 507.2.2 and 507.2.3

An alternate method of deck ledger connection is provided to allow a prescriptive method, saving cost while maintaining the structural integrity of the code.

6. Section R612 - Exterior Windows and Glass Doors

Small business manufacturers are exempt from testing requirements while meeting the structural provisions required by the code.

7. R703.8 - Flashing

The proposed rule amends the 2012 IRC related to flashing to maintain the current method of compliance without incurring potential liability and cost for the small business homebuilder.

**Section III: Analysis of Proportionate Impact on Small Businesses:**

**The Impact on Small Businesses Compared to the Largest Businesses in the State Will Not Be Disproportionate:** The cost of compliance is proportional, in relation to hours of labor, or costs per employee. The incremental cost of meeting the 2012 IRC, will have a proportionate impact on building and construction businesses. Building projects tend to be unique to type of construction, building type, building site, as well as size of the project. Costs for design and construction will be distributed among the general

contractors and subcontractors. Further, construction industry businesses fit primarily into the category of small business. Where an industry has a significant number of large businesses, the costs of compliance for large businesses are proportional to the number of employees in any size business.

**Section IV: Small Business Involvement and Impact Reduction Efforts:**

**Actions Taken to Reduce the Impact of the Rule on Small Businesses:** The TAG identified specific amendments with a cost impact and modified the code to reduce the impact while maintaining the intent of the code. Where the SBCC found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost. The proposed rule includes a definition of small business and provides exceptions for compliance with the updated regulation.

**Involvement of Small Business in the Development of the Proposed Rules:** The SBCC appointed a TAG to represent construction industry businesses and organizations. In accordance with SBCC bylaws, all TAG meetings are open to the public and small businesses are notified and participate in the review.

For a directory of TAG members see <https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=118>.

**Section V: Number of Affected Businesses in Washington:**

- Residential Code (chapter 51-51 WAC)

Type of Business	NAICS CODE #	# IN STATE (UP TO 49 Employees)	# IN STATE (50 OR MORE Employees)
Homebuilders	236115	3985	12
Multifamily Housing Construction	236116	77	0
Residential Remodelers	236118	3468	1
Poured Concrete Foundation and Structure Contractor	238110	1028	3
Roofing Contractors	238160	973	7
Wood Window and Door Manufacturing	321911	39	2
Architects	541310	602	16
Engineers	541330	1665	96

**Section VI: Jobs Created or Lost as a Result of These Rules:** The adoption of the latest code edition is not expected to significantly impact the number of jobs in the construction industry. These rules are likely to be job neutral overall, i.e., they will not result in any job gains or losses.

The construction industry continues to experience slow growth. Employment in all sectors impacts activity in the construction sector. According to Washington Occupational Employment Projections, posted by the department of employment security, the total number of construction trade workers statewide was 124,612 in the second quarter of 2011. There is an estimated increase of 0.6 percent by the second quarter of 2013, for a total number of construction trade



workers of 126,093. Specialty trades show a similar pattern of slow growth by the second quarter of 2013:

• Carpenters	33,821	+0.4%
• Construction laborers	16,592	+0.5%
• Plumbers, pipefitters	8,885	+0.3%

Some sectors are expected to experience slightly more positive growth. The number of engineers employed in Washington is expected to grow in this same period about 2.2 percent to 54,769.

The long-term projection shows a 2.3 percent growth in the construction industry from 2010 to 2015, adding 16,800 jobs for a total of 156,900 employed in the industry by 2015.

A copy of the statement may be obtained by contacting Peggy Bryden, P.O. Box 41449, Olympia, WA 98504-1449, phone (360) 407-9277, fax (360) 586-5366, e-mail [peggy.bryden@des.wa.gov](mailto:peggy.bryden@des.wa.gov).

A cost-benefit analysis is not required under RCW 34.05.328. The SBCC is not one of the agencies identified as required to prepare an analysis.

July 31, 2012  
C. Ray Allshouse  
Council Chair

## Chapter 51-51 WAC

### STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE ~~((2009))~~ 2012 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-003 International Residential Code.** The ~~((2009))~~ 2012 edition of the *International Residential Code* as published by the International Code Council is hereby adopted by reference with the following additions, deletions, and exceptions: Provided that chapters 11 and 25 through 43 of this code are not adopted. Energy Code is regulated by chapter 51-11 WAC; Plumbing Code is regulated by chapter 51-56 WAC; Electrical Code is regulated by chapter 296-46B WAC or Electrical Code as adopted by the local jurisdiction. Appendix G, Swimming Pools, Spas and Hot Tubs, is included in adoption of the International Residential Code.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-008 Implementation.** The International Residential Code adopted by chapter 51-51 Washington Administrative Code (WAC) shall become effective in all counties and cities of this state on July 1, ~~((2010))~~ 2013.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

#### **WAC 51-51-0102 Section R102—Applicability.**

**R102.5 Appendices.** Provisions in the appendices shall not apply unless specifically referenced in the adopting ordi-

nance. Except for Appendix S, Fire Sprinklers, an appendix adopted by a local jurisdiction shall not be effective unless approved by the state building code council pursuant to RCW 19.27.060 (1)(a). The state building code council has determined that a local ordinance requiring fire sprinklers in accordance with Appendix S of this chapter may be adopted by any local government upon notification of the council.

Appendix G, Swimming Pools, Spas and Hot Tubs, and Appendix R, Dwelling Unit Fire Sprinkler Systems, are included in adoption of the International Residential Code.

**R102.7.1 Additions, alterations or repairs.** Additions, alterations or repairs to any structure shall conform to the requirements for a new structure without requiring the existing structure to comply with all of the requirements of this code, unless otherwise stated. Additions, alterations or repairs shall not cause an existing structure to become unsafe or adversely affect the performance of the building.

EXCEPTIONS:

1. Additions with less than 500 square feet of conditioned floor area are exempt from the requirements for Whole House Ventilation Systems, Section M1508.
2. Additions or alterations to existing buildings which do not require the construction of foundations, crawlspaces, slabs or basements shall not be required to meet the requirements for radon protection in Section R327.1 and Appendix F.

**R102.7.2 Moved buildings.** Buildings or structures moved into or within a jurisdiction shall comply with the provisions of this code, the International Building Code (chapter 51-50 WAC), the International Mechanical Code (chapter 51-52 WAC), the International Fire Code (chapter 51-54 WAC), the Uniform Plumbing Code and Standards (chapters 51-56 and 51-57 WAC), and the Washington State Energy Code (chapter 51-11 WAC) ~~((and the Washington State Ventilation and Indoor Air Quality Code (chapter 51-13 WAC)))~~ for new buildings or structures.

EXCEPTION:

Group R-3 buildings or structures are not required to comply if:

1. The original occupancy classification is not changed; and
2. The original building is not substantially remodeled or rehabilitated. For the purposes of this section a building shall be considered to be substantially remodeled when the costs of remodeling exceed 60 percent of the value of the building exclusive of the costs relating to preparation, construction, demolition or renovation of foundations.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

#### **WAC 51-51-0202 Section R202—Definitions.**

**ADULT FAMILY HOME** means a dwelling in which a person or persons provide personal care, special care, room and board to more than one but not more than six adults who are not related by blood or marriage to the person or persons providing the services.

**AIR-IMPERMEABLE INSULATION.** An insulation having an air permeance equal to or less than 0.02 L/s-m<sup>2</sup> at 75 Pa pressure differential tested in accordance with ASTM E2178 or ASTM E283.

**ATTIC, HABITABLE.** A conditioned area (~~(, not considered a story,))~~ complying with all of the following requirements:

1. The occupiable floor area is at least 70 square feet (6.5 m<sup>2</sup>), in accordance with Section R304.
2. The occupiable floor area has a ceiling height in accordance with Section R305.
3. The occupiable space is entirely enclosed by the roof assembly above, knee walls (if applicable) on the sides, and the floor-ceiling assembly below.

A habitable attic is not considered a story.

**CHILD DAY CARE,** shall, for the purposes of these regulations, mean the care of children during any period of a 24 hour day.

~~((CHILD DAY CARE HOME, FAMILY is a child day care facility, licensed by the state, located in the dwelling of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home.))~~ **CHILD CARE, FAMILY HOME.** A facility licensed by the state where child care is provided for twelve or fewer children in the family living quarters where the licensee resides.

**DWELLING UNIT.** A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation. Dwelling units may also include the following uses:

1. Adult family homes, foster family care homes and family day care homes licensed by the Washington state department of social and health services.
2. Offices, mercantile, food preparation for off-site consumption, personal care salons or similar uses which are conducted primarily by the occupants of the dwelling unit and are secondary to the use of the unit for dwelling purposes, and which do not exceed 500 square feet (46.4 m<sup>2</sup>).
3. ~~((Owner-occupied dwellings with 5 or fewer guest rooms-))~~ One accessory dwelling unit, which need not be considered a separated dwelling unit, provided:
  - a. The accessory dwelling unit is constructed within an existing dwelling unit.
  - b. Either the accessory dwelling unit or primary dwelling unit is owner-occupied.
  - c. All required smoke alarms in the accessory dwelling unit and the primary dwelling unit are interconnected in such a manner that the actuation of one alarm will activate all alarms in both the primary dwelling unit and the accessory dwelling unit.

**FIRE SEPARATION DISTANCE.** The distance measured from the foundation wall or face of the wall framing, whichever is closer, to one of the following:

1. To the closest interior lot line; or
2. To the centerline of a street, an alley or public way; or
3. To an imaginary line between two buildings on the lot.

The distance shall be measured at a right angle from the wall.

**MEZZANINE, LOFT.** An intermediate level or levels between the floor and ceiling of any story.

**SMALL BUSINESS.** Any business entity (including a sole proprietorship, corporation, partnership or other legal entity)

which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has fifty or fewer employees ~~(, or which has a million dollars or less per year in gross sales, of window products.~~

~~**SOURCE SPECIFIC VENTILATION SYSTEM.** A mechanical ventilation system including all fans, controls, and ducting, which is dedicated to exhausting contaminant-laden air to the exterior of the building from the room or space in which the contaminant is generated).~~

**WHOLE HOUSE VENTILATION SYSTEM.** A mechanical ventilation system, including fans, controls, and ducts, which replaces, by direct or indirect means, air from the habitable rooms with outdoor air.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-0301 ((Reserved.)) Design criteria.**

**R301.2.2.3.1 Height limitations.** Wood-framed buildings shall be limited to three stories above grade plane or the limits given in Table R602.10.3(3). Cold-formed, steel-framed buildings shall be limited to less than or equal to three stories above grade plane in accordance with AISI S230. Mezzanines as defined in Section R202 that comply with Section R328 shall not be considered as stories. Structural insulated panel buildings shall be limited to two stories above grade plane.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-0302 Section R302—Fire-resistant construction.**

**R302.1 Exterior walls.** Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1(1); or dwellings equipped throughout with an automatic sprinkler system installed in accordance with Section P2904 shall comply with Table R302.1(2).

- EXCEPTIONS:
1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
  2. Walls of dwellings and accessory structures located on the same lot.
  3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
  4. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm).
  5. Foundation vents installed in compliance with this code are permitted.

**TABLE R302.1(1)  
EXTERIOR WALLS**

Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1-hour tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	< 5 feet
	(Not fire-resistance rated)	0 hours	> 5 feet
Projections	(Fire-resistance rated)	1 hour on the underside <sup>ab</sup>	> 2 feet to 5 feet
	(Not fire-resistance rated)	0 hours	5 feet
Openings in walls	Not allowed	N/A	< 3 feet
	25% maximum of wall area <u>per story</u>	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R302.4	< 5 feet
		None required	5 feet

For IS: 1 foot = 304.8 mm. N/A = Not Applicable

a. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fire blocking is provided from the wall top plate to the underside of the roof sheathing.

b. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided no gable vent openings are installed.

~~**(R302.2 Townhouses.** Each townhouse shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.~~

EXCEPTION:

(1) A common 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses where an automatic sprinkler system is installed in accordance with NFPA 13-D, if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with chapter 296-46B WAC or electrical code as adopted by the local jurisdiction. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

(2) A common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with chapter 296-46B WAC or electrical code as adopted by the local jurisdiction. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.)

**Table R302.1(2)**

**Exterior Walls—Dwellings with Fire Sprinklers**

Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1-hour tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	0 feet
	(Not fire-resistance rated)	0 hours	3 feet <sup>a</sup>
Projections	(Fire-resistance rated)	1 hour on the underside <sup>b,c</sup>	2 feet <sup>d</sup>
	(Not fire-resistance rated)	0 hours	3 feet
Openings in walls	Not allowed	N/A	< 3 feet
	Unlimited	0 hours	3 feet <sup>a</sup>
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	3 feet <sup>a</sup>

For IS: 1 foot = 304.8 mm. N/A = Not Applicable

<sup>a</sup>For residential subdivisions where all dwellings are equipped throughout with an automatic sprinkler system installed in accordance with P2904, the fire separation distance for nonrated exterior walls and rated projections shall be permitted to be reduced to 0 feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining lot provides an open setback yard that is 6 feet or more in width on the opposite side of the property line.

<sup>b</sup>Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fire blocking is provided from the wall top plate to the underside of the roof sheathing.

<sup>c</sup>Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided no gable vent openings are installed.

**R302.2.1 Continuity.** The fire-resistance-rated wall or assembly separating townhouses shall be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire-resistance rating shall extend the full length of

the wall or assembly, including wall extensions through and separating attached enclosed accessory structures.

Where a story extends beyond the exterior wall of a story below:

1. The fire-resistance-rated wall or assembly shall extend to the outside edge of the upper story; or
2. The underside of the exposed floor-ceiling assembly shall be protected as required for projections in Section R302.

**R302.2.4 Structural independence.** Each individual townhouse shall be structurally independent.

EXCEPTIONS:

1. Foundation supporting exterior walls or common walls.
2. Structural roof and wall sheathing from each unit may be fastened to the common wall framing.
3. Nonstructural wall and roof coverings.
4. Flashing at termination of roof covering over common wall.
5. Townhouses separated by a common ((2)) 1-hour fire-resistance-rated wall as provided in Section R302.2.
6. Floor sheathing may fasten to the floor framing of both units.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-0303 Section R303—Light, ventilation and heating.**

**R303.1 Natural light.** All habitable rooms shall have an aggregate glazing area of not less than 8 percent of the floor area of such rooms.

EXCEPTION: The glazed areas need not be installed in rooms where artificial light is provided capable of producing an average illumination of 6 footcandles (65 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.

~~((R303.1.1))~~ **R303.2 Adjoining rooms.** For the purpose((s)) of determining light requirements, any room shall be considered as a portion of an adjoining room when at least one-half of the area of the common wall is open and unobstructed and provides an opening of not less than one-tenth of the floor area of the interior room but not less than 25 square feet (2.3 m<sup>2</sup>).

EXCEPTION: Openings required for light shall be permitted to open into a ((thermally isolated)) sunroom ((addition)) with thermal isolation or a patio cover, provided ((that)) there is an openable area between the adjoining room and the sunroom ((addition)) or a patio cover of not less than one-tenth of the floor area of the interior room but not less than 20 square feet (2 m<sup>2</sup>).

~~((R303.2 Minimum Ventilation Performance. Every space intended for human occupancy shall be equipped with source specific and whole house ventilation systems designed and installed as specified in Sections R1507 and R1508.))~~

**R303.3 Bathrooms.** This section is not adopted.

~~((R303.4.1 Intake Openings. Mechanical and gravity outdoor air intake openings shall be located a minimum of 10 feet (3048 mm) from any hazardous or noxious contaminant, such as vents, chimneys, plumbing vents, streets, alleys, parking lots and loading docks, except as otherwise specified~~

~~in this code. Where a source of contaminant is located within 10 feet (3048 mm) of an intake opening, such opening shall be located a minimum of 3 feet (914 mm) below the contaminant source.~~

~~For the purposes of this section, the exhaust from dwelling unit toilet rooms, bathrooms and kitchens shall not be considered as hazardous or noxious.))~~

**R303.4 Minimum ventilation performance.** Dwelling units shall be equipped with local exhaust and whole house ventilation systems designed and installed as specified in Section M1507.

EXCEPTION: Additions with less than 500 square feet of conditioned floor area are exempt from the requirements in this Code for Whole House Ventilation Systems.

**R303.5 Opening location.** Outdoor intake and exhaust openings shall be located in accordance with Sections R303.5.1 and R303.5.2.

**R303.5.1 Intake openings.** Mechanical and gravity outdoor air intake openings shall be located a minimum of 10 feet (3048 mm) from any hazardous or noxious contaminant, such as vents, chimneys, plumbing vents, streets, alleys, parking lots and loading docks, except as otherwise specified in this code. Where a source of contaminant is located within 10 feet (3048 mm) of an intake opening, such opening shall be located a minimum of 3 feet (914 mm) below the contaminant source.

~~For the purpose of this section, the exhaust from dwelling unit toilet rooms, bathrooms and kitchens shall not be considered as hazardous or noxious.~~

**R303.5.2 Exhaust openings.** Exhaust air shall not be directed onto walkways. All exhaust ducts shall terminate outside the building. Terminal elements shall have at least the equivalent net free area of the duct work.

**R303.5.2.1 Exhaust ducts.** Exhaust ducts shall be equipped with back-draft dampers. All exhaust ducts in unconditioned spaces shall be insulated to a minimum of R-4.

~~((R303.6))~~ **R303.7 Stairway illumination.** All interior and exterior stairways shall be provided with a means to illuminate the stairs, including the landings and treads. Stairway illumination shall receive primary power from the building wiring. Interior stairways shall be provided with an artificial light source located in the immediate vicinity of each landing of the stairway. For interior stairs the artificial light sources shall be capable of illuminating treads and landings to levels not less than 1 foot-candle (11 lux) measured at the center of treads and landings. Exterior stairways shall be provided with an artificial light source located in the immediate vicinity of the top landing of the stairway. Exterior stairways providing access to a basement from the outside grade level shall be provided with an artificial light source located in the immediate vicinity of the bottom landing of the stairway.

EXCEPTION: An artificial light source is not required at the top and bottom landing, provided an artificial light source is located directly over each stairway section.

~~((R303.6.1 Light Activation. Where lighting outlets are installed in interior stairways, there shall be a wall switch at each floor level to control the lighting outlet where the stair-~~

way has six or more risers. The illumination of exterior stairways shall be controlled from inside the dwelling unit.

EXCEPTION: Lights that are continuously illuminated or automatically controlled.

**R303.8.1 Definitions.** For the purposes of this section only, the following definitions apply:

**DESIGNATED AREAS** are those areas designated by a county to be an urban growth area in chapter 36.70A RCW and those areas designated by the U.S. Environmental Protection Agency as being in nonattainment for particulate matter.

**SUBSTANTIALLY REMODELED** means any alteration or restoration of a building exceeding 60 percent of the appraised value of such building within a 12 month period. For the purpose of this section, the appraised value is the estimated cost to replace the building and structure in kind, based on current replacement costs.

**R303.8.2 Primary Heating Source.** Primary heating sources in all new and substantially remodeled buildings in designated areas shall not be dependent upon wood stoves.

**R303.8.3 Solid Fuel Burning Devices.** No used solid fuel burning device shall be installed in new or existing buildings unless such device is United States Environmental Protection Agency certified or a pellet stove either certified or exempt from certification by the United States Environmental Protection Agency.

EXCEPTION: Antique wood cook stoves and wood heaters manufactured prior to 1940.)

**R303.9 Required heating.** When the winter design temperature in Table R301.2(1) is below 60°F (16°C), every dwelling unit shall be provided with heating facilities capable of maintaining a minimum room temperature of 68°F (20°C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in all habitable rooms at design temperature. The installation of one or more portable heaters shall not be used to achieve compliance with this section.

EXCEPTION: Unheated recreational tents or yurts not exceeding 500 square feet provided it is not occupied as a permanent dwelling.

**R303.9.1 Definitions.** For the purposes of this section only, the following definitions apply.

**DESIGNATED AREAS** are those areas designated by a county to be an urban growth area in chapter 36.70A RCW and those areas designated by the U.S. Environmental Protection Agency as being in nonattainment for particulate matter.

**SUBSTANTIALLY REMODELED** means any alteration or restoration of a building exceeding 60 percent of the appraised value of such building within a 12 month period. For the purpose of this section, the appraised value is the estimated cost to replace the building and structure in kind, based on current replacement costs.

**R303.9.2 Primary heating source.** Primary heating sources in all new and substantially remodeled buildings in designated areas shall not be dependent upon wood stoves.

**R303.9.3 Solid fuel burning devices.** No new or used solid fuel burning device shall be installed in new or existing buildings unless such device is United States Environmental Protection Agency certified or a pellet stove either certified or exempt from certification by the United States Environmental Protection Agency.

EXCEPTIONS: 1. Wood cook stoves.  
2. Wood heaters.

**AMENDATORY SECTION** (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

#### WAC 51-51-0314 Section R314—Smoke alarms.

**R314.3 Location.** Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

4. In napping areas in a family home child ((day)) care ((homes)).

((When more than one smoke alarm is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.))

**R314.3.1 Alterations, Repairs and Additions.** When alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms as required for new dwellings.

EXCEPTIONS: 1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck are exempt from the requirements of this section.  
2. Installation, alteration or repairs of plumbing, electrical or mechanical systems are exempt from the requirements of this section.

**AMENDATORY SECTION** (Amending WSR 12-01-099, filed 12/20/11, effective 4/1/12)

#### WAC 51-51-0315 Section R315—Carbon monoxide alarms.

**R315.1 Carbon Monoxide Alarms.** For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units and on each level of the dwelling and in accordance with the manufacturer's recommendations.

**R315.2 ((Existing Dwellings.** Existing dwellings shall be equipped with carbon monoxide alarms when alterations,

repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created.

EXCEPTIONS: 1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, or electrical permits, are exempt from the requirements of this section.  
2. Installation, alteration or repairs of noncombustion plumbing or mechanical systems are exempt from the requirements of this section.)

**Carbon monoxide detection systems.** Carbon monoxide detection systems that include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720-2009, shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075. Where a household carbon monoxide detection system is installed, it shall become a permanent fixture of the occupancy.

EXCEPTION: Where carbon monoxide alarms are installed meeting the requirements of Section R315.1, compliance with Section R315.2 is not required.

**R315.3 ((Alarm Requirements)) Where required in existing dwellings.** Existing dwellings shall be equipped with carbon monoxide alarms in accordance with Section R315.1. An inspection will occur when alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created.

EXCEPTIONS: 1. Work involving only the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, or electrical permits, are exempt from the inspection requirements of this section.  
2. Installation, alteration or repairs of nonfuel burning plumbing or mechanical systems are exempt from the inspection requirements of this section.  
3. Owner-occupied single-family residences legally occupied before July 26, 2009. RCW 19.27.530 (2)(b).

**R315.4 Alarm requirements.** Single station carbon monoxide alarms shall be listed as complying with UL 2034 and NFPA 720-2009 and shall be installed in accordance with this code and the manufacturer's installation instructions.

**AMENDATORY SECTION** (Amending WSR 10-18-036, filed 8/25/10, effective 9/25/10)

**WAC 51-51-0325 Section R325—Adult family homes.**

SECTION R325  
ADULT FAMILY HOMES

**R325.1 General.** This section shall apply to all newly constructed adult family homes and all existing single family homes being converted to adult family homes. This section shall not apply to those adult family homes licensed by the state of Washington department of social and health services prior to July 1, 2001.

**R325.2 Submittal standards.** In addition to those requirements in Section 106.1, the submittal shall identify the project as a Group R-3 Adult Family Home Occupancy. A floor

plan shall be submitted identifying the means of egress and the components in the means of egress such as stairs, ramps, platform lifts and elevators. The plans shall indicate the rooms used for clients and the sleeping room classification of each room.

**R325.3 Sleeping room classification.** Each sleeping room in an adult family home shall be classified as:

1. Type S - Where the means of egress contains stairs, elevators or platform lifts.

2. Type NS1 - Where one means of egress is at grade level or a ramp constructed in accordance with R325.9 is provided.

3. Type NS2 - Where two means of egress are at grade level or ramps constructed in accordance with R325.9 are provided.

**R325.4 Types of locking devices and door activation.** All bedroom and bathroom doors shall be openable from the outside when locked.

Every closet shall be readily openable from the inside.

Operable parts of door handles, pulls, latches, locks and other devices installed in adult family homes shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. Pocket doors shall have graspable hardware available when in the closed or open position.

The force required to activate operable parts shall be 5.0 pounds (22.2 N) maximum. Required exit doors shall have no additional locking devices.

Required exit door hardware shall unlock inside and outside mechanisms when exiting the building allowing reentry into the adult family home without the use of a key, tool or special knowledge.

**R325.5 Smoke and carbon monoxide alarm requirements.** All adult family homes shall be equipped with smoke and carbon monoxide alarms installed as required in Section R314 and R315.1. Alarms shall be installed in such a manner so that the ~~((fire))~~ detection device warning ~~((may be))~~ is audible ~~((in))~~ from all ~~((parts))~~ areas of the dwelling upon activation of a single ~~((device))~~ alarm.

**R325.6 Escape windows and doors.** Every sleeping room shall be provided with emergency escape and rescue windows as required by Section R310. No alternatives to the sill height such as steps, raised platforms or other devices placed by the openings will be approved as meeting this requirement.

**R325.7 Fire apparatus access roads and water supply for fire**

**protection.** Adult family homes shall be served by fire apparatus access roads and water supplies meeting the requirements of the local jurisdiction.

**R325.8 Grab bar~~((s))~~ general requirements.** Where facilities are designated for use by adult family home clients, grab bars ~~((shall be installed))~~ for ~~((all))~~ water closets ~~((and))~~, bathtubs and shower~~((s))~~ stalls shall be installed according to this section. ~~((The grab bars shall comply with ICC/ANSI A117.1 Sections 604.5 and 607.4 and 608.3.~~

**EXCEPTION:** Grab bars are not required for water closets and bathtubs and showers used exclusively by staff of the adult family home.)

**R325.8.1 Grab bar cross section.** Grab bars with a circular cross section shall have an outside diameter of 1 1/4 inches minimum and 2 inches maximum. Grab bars with noncircular cross section shall have a cross section dimension of 2 inches maximum and a perimeter dimension of 4 inches minimum and 4 5/8 inches maximum.

**R325.8.2 Grab bar installation.** Grab bars shall have a spacing of 1 1/2 inches between the wall and the bar. Projecting objects, control valves and bathtub or shower stall enclosure features above, below and at the ends of the grab bar shall have a clear space of 1 1/2 inches to the grab bar.

**EXCEPTION 1:** Swing-up grab bars shall not be required to meet the 1/2 inch spacing requirement.

Grab bars shall have a structural strength of 250 pounds applied at any point on the grab bar, fastener, mounting device or supporting structural member. Grab bars shall not be supported directly by any residential grade fiberglass bathing or showering unit. Acrylic bars found in bathing units shall be removed.

Fixed position grab bars, when mounted, shall not rotate, spin or move and have a graspable surface finish.

**R325.8.3 Grab bars at water closets.** Water closets shall have grab bars mounted on both sides. Grab bars can be a combination of fixed position and swing-up bars. Grab bars shall meet the requirements of R325.8.

**R325.8.3.1 Fixed position grab bars.** Fixed position grab bars shall be 36 inches in length and start 12 inches from the rear wall.

**R325.8.3.2 Swing-up grab bars.** Swing-up grab bars shall be a minimum of 28 inches in length from the rear wall. Grab bars shall mount between 33 inches and 36 inches above floor grade. Centerline distance between grab bars, regardless of type used, shall be between 25 inches minimum and 30 inches maximum.

**R325.8.4 Grab bars at bathtubs.** Horizontal and vertical grab bars shall meet the requirements of 420.7.7.

**R325.8.4.1 Vertical grab bars.** Vertical grab bars shall be 18 inches long and installed at the control end wall and head end wall. Grab bars shall mount within 4 inches of the exterior of the bath tub edge or within 4 inches within the bath tub. The bottom end of the bar shall start between 36 inches and 42 inches above floor grade.

**EXCEPTION:** The required vertical grab bar can be substituted with a floor to ceiling grab bar meeting the requirements of 420.7.7 at the control end and head end entry points.

**R325.8.4.2 Horizontal grab bars.** Horizontal grab bars shall be provided at the control end, head end, and the back wall within the bathtub area. Grab bars shall be mounted between 33 inches and 36 inches above floor grade. Control end and head end grab bars shall be 24 inches in length. Back wall grab bar shall be 36 inches in length.

**R325.8.5 Grab bars at shower stalls.** Where shower stalls are provided to meet the requirements for bathing facilities, grab bars shall meet the requirements of R325.8.

**EXCEPTION:** Shower stalls with permanent built-in seats are not required to have vertical or horizontal grab bars at the seat end wall. A vertical floor to ceiling grab bar shall be installed within 4 inches of the exterior of the shower aligned with the nose of the built-in seat.

**R325.8.5.1 Vertical grab bars.** Vertical 18 inch grab bars shall be installed at the control end wall and end wall. Vertical bars shall mount within 4 inches of the exterior of the shower stall or within 4 inches inside the shower stall. The bottom end of vertical bars mount between 36 inches and 42 inches above floor grade.

**R325.8.5.2 Horizontal grab bars.** Horizontal grab bars shall be installed on all sides of the shower stall mounted between 33 inches and 36 inches above the floor grade. Horizontal grab bars shall be a maximum of 6 inches from adjacent walls. Horizontal grab bars shall not interfere with shower control valves.

**R325.9 Ramps.** All interior and exterior ramps, when provided, shall be constructed in accordance with Section R311.8 with a maximum slope of 1 vertical to 12 horizontal. The exception to R311.8.1 is not allowed for adult family homes. Handrails shall be installed in accordance with R325.9.1.

**R325.9.1 Handrails for ramps.** Handrails shall be installed on both sides of ramps between the slope of 1 vertical to 12 horizontal and 1 vertical and 20 horizontal in accordance with R311.6.3.1 through R311.6.3.3.

**R325.10 Stair treads and risers.** Stair treads and risers shall be constructed in accordance with R311.7.4. Handrails shall be installed in accordance with R325.10.1.

**R325.10.1 Handrails for treads and risers.** Handrails shall be installed on both sides of treads and risers numbering from one riser to multiple risers. Handrails shall be installed in accordance with R311.7.7 through R311.7.7.4.

**R325.11 Shower stalls.** Where provided to meet the requirements for bathing facilities, the minimum size of shower stalls for an adult family home shall be 30 inches deep by 48 inches long.

**AMENDATORY SECTION** (Amending WSR 07-01-090, filed 12/19/06, effective 7/1/07)

**WAC 51-51-0326 Section R326—Family home child ((day)) care ((homes)).**

**((SECTION R326  
FAMILY CHILD DAY CARE HOMES))**

**R326 Family home child ((Day)) care ((Homes)).** For family home child ((day)) care ((homes)) with more than six children, each floor level used for family child ((day)) care purposes shall be served by two remote means of egress. Exterior exit doors shall be operable from the inside without the use of keys or any special knowledge or effort.

Basements located more than 4 feet below grade level shall not be used for family child day care homes unless one of following conditions exist:

1. Stairways from the basement open directly to the exterior of the building without entering the first floor; or
2. One of the two required means of egress discharges directly to the exterior from the basement level, and a self-closing door is installed at the top or bottom of the interior stair leading to the floor above; or
3. One of the two required means of egress is an operable window or door, approved for emergency escape or rescue, that opens directly to a public street, public alley, yard or exit court; or
4. A residential sprinkler system is provided throughout the entire building in accordance with National Fire Protection Association Standard 13d.

Floors located more than 4 feet above grade level shall not be occupied by children in family ~~((day))~~ home child care ~~((homes))~~.

- EXCEPTIONS:
1. Use of toilet facilities while under supervision of an adult staff person.
  2. Family home child ~~((day))~~ care ~~((homes))~~ may be allowed on the second story if one of the following conditions exists:
    - 2.1 Stairways from the second story open directly to the exterior of the building without entering the first floor; or
    - 2.2 One of the two required means of egress discharges directly to the exterior from the second story level, and a self-closing door is installed at the top or bottom of the interior stair leading to the floor below; or
    - 2.3 A residential sprinkler system is provided throughout the entire building in accordance with National Fire Protection Association Standard 13d.

Every sleeping or napping room in a family home child ~~((day))~~ care ~~((home))~~ shall have at least one operable window for emergency rescue.

- EXCEPTION:
- Sleeping or napping rooms having doors leading to two separate means of egress, or a door leading directly to the exterior of the building.

Rooms or spaces containing a commercial-type cooking kitchen, boiler, maintenance shop, janitor closet, laundry, woodworking shop, flammable or combustible storage, or painting operation shall be separated from the family home child ~~((day))~~ care area by at least one-hour fire-resistive construction.

- EXCEPTION:
- A fire-resistive separation shall not be required where the food preparation kitchen contains only a domestic cooking range, and the preparation of food does not result in the production of smoke or grease laden vapors.

**NEW SECTION**

**WAC 51-51-0328 Section R328—Mezzanines.**

**R328.1 General.** Mezzanines shall comply with Section R328.

**R328.2 Mezzanines.** The clear height above and below *mezzanine* floor construction shall meet the requirements of R305.1.

**R328.3 Area limitation.** The aggregate area of a *mezzanine* shall be not greater than one-third of the floor area of the room or space in which they are located. The enclosed portion of a room shall not be included in a determination of the floor area of the room in which the *mezzanine* is located.

**R328.4 Means of egress.** The *means of egress* for *mezzanines* shall comply with the applicable provisions of Section R311.

**R328.5 Openness.** A *mezzanine* shall be open and unobstructed to the room in which the *mezzanine* is located except for walls not more than 42 inches (1067 mm) in height, columns and posts.

- EXCEPTIONS:
1. *Mezzanines* or portions thereof are not required to be open to the room in which they are located, provided that the aggregate floor area of the enclosed space is not greater than 10 percent of the *mezzanine* area.
  2. *Mezzanines* that are no more than two *stories* above grade plane and equipped throughout with an *automatic sprinkler system* in accordance with NFPA 13R, NFPA 13D or Appendix S, a *mezzanine* having two or more *means of egress* shall not be required to be open to the room in which the *mezzanine* is located.

**AMENDATORY SECTION** (Amending WSR 10-24-061, filed 11/29/10, effective 7/1/11)

**WAC 51-51-0403 Section R403—Footings.**

~~((R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads specified in Section R301 and to transmit the resulting loads to the supporting soil within the limitations determined from the characteristics of the soil. Footings shall be supported on undisturbed natural soil or engineered fill. Foundation walls complying with Section R404 or stem walls complying with Section R403.1.3 shall be permitted to support exterior walls, exterior braced wall lines and exterior braced wall panels provided they are supported by continuous footings.))~~

TABLE R403.1  
MINIMUM WIDTH OF CONCRETE,  
PRECAST OR MASONRY FOOTINGS  
(inches)

	LOAD-BEARING VALUE OF SOIL (psf)			
	1,500	2,000	3,000	≥4,000
Conventional light-frame construction				
1 floor <sup>b, c</sup>	12	12	12	12
2 floors <sup>b, c</sup>	15	12	12	12
3 floors <sup>b, c</sup>	23	17	12	12
4-inch brick veneer over light frame or 8-inch hollow concrete masonry				
1-story	12	12	12	12
2-story	21	16	12	12
3-story	32	24	16	12
8-inch solid or fully grouted masonry				
1-story	16	12	12	12
2-story	29	21	14	12
3-story	42	32	21	16



For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479kPa.

- Where minimum footing width is 12 inches, use of a single wythe of solid or fully grouted 12-inch nominal concrete masonry units is permitted.
- Represents the number of floors supported.
- Footings shall be permitted to support a roof in addition to the stipulated number of floors. Footings supporting a roof only shall be as required for supporting one floor.

**R403.1.2 Continuous Footing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>.** The braced wall panels at exterior walls of buildings located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> shall be supported by continuous footings. All required interior braced wall panels shall be supported on footings at intervals not exceeding 50 feet (15,240 mm).

((Figure 403.4(1). Note corrected title and labels:

~~BASEMENT OR CRAWL SPACE WITH PRECAST CONCRETE FOUNDATION WALL BEARING ON CRUSHED STONE  
PRECAST CONCRETE FOUNDATION WALL  
CRUSHED STONE FOOTING~~

Figure 403.4(2). Note corrected title and label:

~~BASEMENT OR CRAWL SPACE WITH PRECAST CONCRETE FOUNDATION WALL ON SPREAD FOOTING  
PRECAST CONCRETE FOUNDATION WALL~~

AMENDATORY SECTION (Amending WSR 10-24-061, filed 11/29/10, effective 7/1/11)

**WAC 51-51-0404 Section R404—Foundation and retaining walls.**

((Table R404.1.1(3). Note corrected title:

~~10-INCH MASONRY FOUNDATION WALLS WITH REINFORCING WHERE  $d \geq 6.75$  INCHES<sup>a-e</sup>)~~

**R404.1.2.2 Reinforcement for foundation walls.** Concrete foundation walls shall be laterally supported at the top except where permitted in R404.1.2.2.1 and R404.1.2.2.2, and at the bottom where required elsewhere in this code. Horizontal reinforcement shall be provided in accordance with Table R404.1.2(1). Vertical reinforcement shall be provided in accordance with Table R404.1.2(2), R404.1.2(3), R404.1.2(4), R404.1.2(5), R404.1.2(6), R404.1.2(7) or R404.1.2(8). Vertical reinforcement for flat basement walls retaining 4 feet (1,219 mm) or more of unbalanced backfill is permitted to be determined in accordance with Table R404.1.2(9).

For basement walls supporting above-grade concrete walls, vertical reinforcement shall be the greater of that required by Tables R404.1.2(2) through R404.1.2(8) or by Section 611.6 for the above-grade wall. In buildings assigned to Seismic Design Category D<sub>0</sub>, D<sub>1</sub> or D<sub>2</sub>, concrete foundation walls shall also comply with Section R404.1.4.2.

**R404.4 Retaining walls.** Retaining walls not supporting a structure that are not laterally supported at the top and that retain in excess of 24 inches (610 mm) of unbalanced fill shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning.

AMENDATORY SECTION (Amending WSR 10-18-036, filed 8/25/10, effective 9/25/10)

**WAC 51-51-0408 Section R408—Under-floor space.**

**R408.1 Ventilation.** The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or exterior walls.

**R408.2 Openings for under-floor ventilation.** The minimum net area of ventilation openings shall not be less than 1 square foot (0.0929 m<sup>2</sup>) for each 300 square feet (28 m<sup>2</sup>) of under-floor area. ~~((One ventilating opening shall be within 3 feet (914 mm) of each corner of the building.))~~ Required openings shall be evenly placed to provide cross ventilation of the space except one side of the building shall be permitted to have no ventilation openings. Ventilation openings shall be covered for their height and width with any of the following materials provided that the least dimension of the covering shall not exceed 1/4 inch (6.4 mm):

- Perforated sheet metal plates not less than 0.070 inch (1.8 mm) thick.
- Expanded sheet metal plates not less than 0.047 inch (1.2 mm) thick.
- Cast-iron grill or grating.
- Extruded load-bearing brick vents.
- Hardware cloth of 0.035 inch (0.89 mm) wire or heavier.
- Corrosion-resistant wire mesh, with the least dimension being 1/8 inch (3.2 mm).

**EXCEPTION:** The total area of ventilation openings shall be permitted to be reduced to 1/1,500 of the under-floor area where the ground surface is covered with an approved Class I vapor retarder material and the required openings are placed to provide cross ventilation of the space. The installation of operable louvers shall not be prohibited. If the installed ventilation is less than 1/300, or if operable louvers are installed, a radon vent shall be installed to originate from a point between the ground cover and soil. The radon vent shall be installed in accordance with the requirements of Appendix F (Radon) of this code.

**R408.3 Unvented crawl space.** Ventilation openings in under-floor spaces specified in Sections R408.1 and R408.2 shall not be required where:

- Exposed earth is covered with a continuous Class I vapor retarder. Joints of the vapor retarder shall overlap by 6 inches (152 mm) and shall be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall and shall be attached and sealed to the stem wall; and a radon system shall be installed that meets the requirements of Appendix F (Radon) of this code.

2. Continuously operated mechanical exhaust ventilation is provided at a rate equal to 1 cubic foot per minute (0.47 L/s) for each 50 square feet (4.7 m<sup>2</sup>) of crawlspace floor area. Exhaust ventilation shall terminate to the exterior.

**EXCEPTION:** Plenum in existing structures complying with Section M1601.5, if under-floor space is used as a plenum.

NEW SECTION

**WAC 51-51-0501 Section R501—General.**

**R501.3 Fire protection of floors.** Floor assemblies, not required elsewhere in this code to be fire-resistance rated, shall be provided with a 1/2-inch (12.7 mm) gypsum wall-board membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member.

- EXCEPTIONS:
1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA 13D, or other approved equivalent sprinkler system.
  2. Floor assemblies located directly over a crawl space not intended for storage or fuel-fired appliances.
  3. Portions of floor assemblies can be unprotected when complying with the following:
    - 3.1. The aggregate area of the unprotected portions shall not exceed 80 square feet per story.
    - 3.2. Fire blocking in accordance with Section R302.11.1 shall be installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
  4. Wood floor assemblies using dimensional lumber or *structural composite lumber* with a cross sectional area equal to or greater than 2-inch by 10-inch nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-0502 Section R502—(~~Wood floor framing~~) Reserved.**

~~(**R502.2.2.2 Alternate Deck Ledger Connections.** Deck ledger connections not conforming to Table R502.2.2.1 shall be attached with approved fasteners having equivalent withdrawal capacity or be designed in accordance with accepted engineering practice. Girders supporting deck joists shall not be supported on deck ledgers or band joists. Deck ledgers shall not be supported on stone or masonry veneer.~~

~~**R502.2.2.3 Deck Lateral Load Connections.** The lateral load connection required by Section R502.2.2 shall be permitted to be in accordance with Figure R502.2.2.3. Hold-down tension devices shall be installed in not less than two locations per deck, and each device shall have an allowable stress design capacity of not less than 1500 pounds (6672 N).~~

EXCEPTION: ~~Decks not more than 30 inches above grade at any point may be unattached.)~~

NEW SECTION

**WAC 51-51-0507 Section R507—Decks.**

**R507.2.2 Alternate deck ledger connections.** Deck ledger connections not conforming to Table R507.2 shall be attached with approved fasteners having equivalent withdrawal capacity or be designed in accordance with accepted engineering practice. Girders supporting deck joists shall not be supported on deck ledgers or band joists. Deck ledgers shall not be supported on stone or masonry veneer.

**R507.2.3 Deck lateral load connections.** The lateral load connection required by Section R507.1 shall be permitted to be in accordance with Figure R507.2.3. Where the lateral load connection is provided in accordance with Figure R507.2.3, hold-down tension devices shall be installed in not less than two locations per deck, and each device shall have an allowable stress design capacity of not less than 1500 pounds (6672 N).

- EXCEPTIONS:
1. Decks not more than 30 inches above grade at any point may be unattached.
  2. Where a new deck is being added to an existing structure, the lateral load connection required by Section R507.1 shall be permitted to be in accordance with Figure R507.2.4.

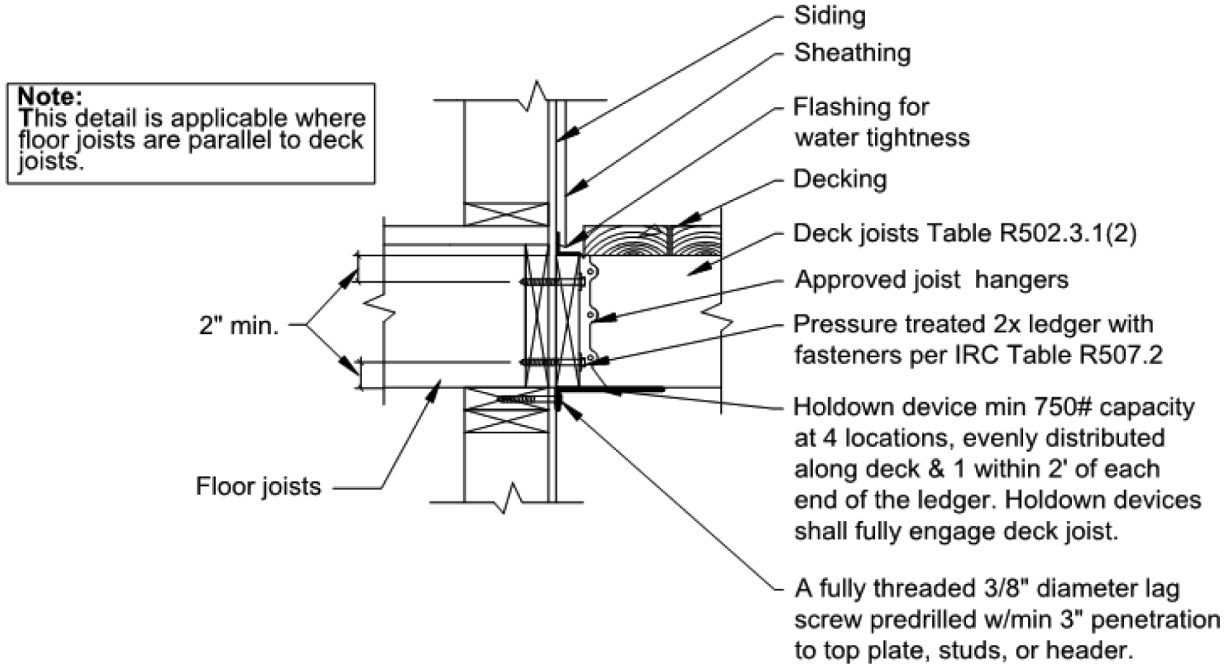


Figure R507.2.4

**Table 507.2.1**  
**Placement of Lag Screws and Bolts in Deck Ledgers and Band Joists**

MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS				
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING
Ledger <sup>a</sup>	2 inches <sup>d</sup>	3/4 inch	2 inches <sup>b</sup>	1 5/8 inches <sup>b</sup>
Band joist <sup>c</sup>	3/4 inch	2 inches <sup>e</sup>	2 inches <sup>b</sup>	1 5/8 inches <sup>b</sup>

For SI: 1 inch = 25.4 mm.

<sup>a</sup>Lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figure R507.2.1(1).

<sup>b</sup>Maximum 5 inches.

<sup>c</sup>For engineered rim joists, the manufacturer's recommendations shall govern.

<sup>d</sup>The minimum distance from bottom row of lag screws to the top edge of the ledger shall be in accordance with Figure R507.2.1(1).

<sup>e</sup>The 2 inches may be reduced to 3/4 inch when the band joist is directly supported by a mudsill, a header or by double top wall plates

**AMENDATORY SECTION** (Amending WSR 10-18-036, filed 8/25/10, effective 9/25/10)

**WAC 51-51-0602 Section R602—Wood wall framing.**

**R602.9 Foundation cripple walls.** Foundation cripple walls shall be framed of studs not smaller than the studding above. When exceeding 4 feet (1219 mm) in height, such walls shall

be framed of studs having the size required for an additional story.

Cripple walls supporting bearing walls or exterior walls or interior braced wall panels as required in Sections R403.1.2 and ((R602.10.7.1) **R602.10.9.1** with a stud height less than 14 inches (356 mm) shall be continuously sheathed on ((at least)) one side with ((a)) wood structural panels ((that is)) fastened to both the top and bottom plates in accordance with Table R602.3(1), or the cripple walls shall be constructed of solid blocking. All cripple walls shall be supported on continuous footings or foundations.

**EXCEPTION:** Footings supporting cripple walls used to support interior braced wall panels as required in Sections R403.1.2 and ((R602.10.7.1) **R602.10.9.1** shall be continuous for the required length of the cripple wall and constructed beyond the cripple wall for a minimum distance of 4 inches and a maximum distance of the footing thickness. The footings extension is not required at intersections with other footings.

~~((R602.10.1.2 Length of bracing. The length of bracing along each braced wall line shall be the greater of that required by the design wind speed and braced wall line spacing in accordance with Table R602.10.1.2(1) as adjusted by the factors in the footnotes or the Seismic Design Category and braced wall line length in accordance with Table R602.10.1.2(2) as adjusted by the factors in Table R602.10.1.2(3). Braced wall panel locations shall comply with the requirements of Section R602.10.1.4. Only walls that are parallel to the braced wall line shall be counted toward the bracing requirement of that line, except angled walls shall be counted in accordance with Section R602.10.1.3. In no case shall the minimum total length of bracing in a braced wall line, after all adjustments have been taken, be less than 48 inches (1219 mm) total.~~

**R602.10.1.5 Braced wall line spacing for Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>.** Spacing between braced wall lines in each story shall not exceed 25 feet (7620 mm) on center in both the longitudinal and transverse directions.

((EXCEPTION: In one-story and two-story buildings, spacing between two adjacent braced wall lines shall not exceed 35 feet (10,668 mm) on center in order to accommodate one single room not exceeding 900 square feet (84 m<sup>2</sup>) in each dwelling unit or accessory structure. Spacing between all other braced wall lines shall not exceed 25 feet (7620 mm). A spacing of 35 feet (10,668 mm) or less shall be permitted between braced wall lines where the length of wall bracing required by Table R602.10.1.2(2) is multiplied by the appropriate adjustment factor from Table R602.10.1.5, the length-to-width ratio for the floor/roof diaphragm does not exceed 3:1, and the top plate lap splice face nailing is twelve 16d nails on each side of the splice.

**R602.10.2.3 Redesignation of cripple walls.** In any Seismic Design Category, cripple walls are permitted to be redesignated as the first story walls for purposes of determining wall bracing requirements. If the cripple walls are redesignated, the stories above the redesignated story shall be counted as the second and third stories, respectively.

**R602.10.7.1 Braced wall panel support for Seismic Design Category D<sub>2</sub>.** In one-story buildings located in Seismic Design Category D<sub>2</sub>, braced wall panels shall be supported on continuous foundations at intervals not exceeding 50 feet (15,240 mm). In two-story buildings located in Seismic Design Category D<sub>2</sub>, all braced wall panels shall be supported on continuous foundations.

**R602.10.9 Cripple wall bracing.** In Seismic Design Categories other than D<sub>2</sub>, cripple walls supporting bearing walls or exterior walls or interior braced wall panels as required in R403.1.2 and R602.10.7.1 shall be braced with a length and type of bracing as required for the wall above in accordance with Tables R602.10.1.2(1) and R602.10.1.2(2) with the following modifications for cripple wall bracing:

1. The length of bracing as determined from Tables R602.10.1.2(1) and R602.10.1.2(2) shall be multiplied by a factor of 1.15, and
2. The wall panel spacing shall be decreased to 18 feet (5486 mm) instead of 25 feet (7620 mm).

**R602.10.9.1 Cripple wall bracing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>.** In addition to the requirements of Section R602.10.9, where braced wall lines at interior walls occur without a continuous foundation below, the length of parallel exterior cripple wall bracing shall be 1 1/2 times the length required by Tables R602.10.1.2(1) and R602.10.1.2(2). Where cripple walls braced using Method WSP of Section R602.10.2 cannot provide this additional length, the capacity of the sheathing shall be increased by reducing the spacing of fasteners along the perimeter of each piece of sheathing to 4 inches (102 mm) on center.

In Seismic Design Category D<sub>2</sub>, cripple walls supporting bearing walls or exterior walls or interior braced wall panels as required in Sections R403.1.2 and R602.10.7.1 shall be braced in accordance with Tables R602.10.1.2(1) and R602.10.1.2(2).)

**R602.10.11 Cripple wall bracing.** Cripple walls shall be constructed in accordance with Section R602.9 and braced in accordance with this section. Cripple walls supporting bearing walls or exterior walls or interior braced wall panels as required in R403.1.2 shall be braced with the length and method of bracing used for the wall above in accordance with Tables R602.10.3(1) and R602.10.3(3), and the applicable adjustment factors in Table R602.10.3(2) or R602.10.3(4), respectively, except the length of the cripple wall bracing shall be multiplied by a factor of 1.15. The distance between adjacent edges of braced wall panels shall be reduced from 20 feet (6096 mm) to 14 feet (4267 mm).

**R602.10.11.2 Cripple wall bracing for Seismic Design Category D<sub>2</sub>.** In Seismic Design Category D<sub>2</sub>, cripple walls supporting bearing walls or exterior walls or interior braced wall panels as required in R403.1.2 shall be braced in accordance with Tables R602.10.3(3) and R602.10.3(4).

**AMENDATORY SECTION** (Amending WSR 10-18-036, filed 8/25/10, effective 9/25/10)

**WAC 51-51-0612 Section R612—Exterior windows and ((glass)) doors.**

**((R612.6)) R612.3 Testing and labeling.** Exterior windows and sliding doors shall be tested by an approved independent laboratory, and bear a label identifying manufacturer, performance characteristics and approved inspection agency to indicated compliance with AAMA/WDMA/CSA 101/I.S.2/A440. Exterior side-hinged doors shall be tested and labeled as conforming to AAMA/WDMA/CSA 101/I.S.2/A440 or comply with Section **((R612.6)) R612.5**.

EXCEPTIONS:

1. Decorative glazed openings.
2. Custom exterior windows and doors manufactured by a small business shall be exempt from all testing requirements in Section R612 of the International Residential Code provided they meet the applicable provisions of Chapter 24 of the International Building Code.

**AMENDATORY SECTION** (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-0703 Section R703—Exterior covering.**

**R703.1 General.** Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.8.

**R703.1.1 Water resistance.** The exterior wall envelope shall be designed and constructed in a manner that prevents the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer as required by Section R703.2 and a means of draining water that enters the assembly to the exterior. Protection against condensation in the exterior wall assembly shall be provided in accordance with Section **((601.3)) R702.7** of this code.

EXCEPTIONS:

1. A weather-resistant exterior wall envelope shall not be required over concrete or masonry walls designed in accordance with Chapter 6 and flashed according to Section R703.7 or R703.8.

2. Compliance with the requirements for a means of drainage, and the requirements of Section R703.2 and R703.8, shall not be required for an exterior wall envelope that has been demonstrated to resist wind-driven rain through testing of the exterior wall envelope, including joints, penetrations and intersections with dissimilar materials, in accordance with ASTM E 331 under the following conditions:

2.1. Exterior wall envelope test assemblies shall include at least one opening, one control joint, one wall/eave interface and one wall sill. All tested openings and penetrations shall be representative of the intended end-use configuration.

2.2. Exterior wall envelope test assemblies shall be at least 4 feet (1219 mm) by 8 feet (2438 mm) in size.

2.3. Exterior wall assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (299Pa).

2.4. Exterior wall envelope assemblies shall be subjected to a minimum test exposure duration of 2 hours. The exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate: Control joints in the exterior wall envelope; joints at the perimeter of opening penetration; or intersections of terminations with dissimilar materials.

3. The requirement for a means of drainage shall not be construed to mean an air space cavity under the exterior cladding for an exterior wall clad with panel or lapped siding made of plywood, engineered wood, hardboard, or fiber cement. A water-resistive barrier as required by Section R703.2 and Table R703.4 will be required on exterior walls.

**R703.8 Flashing.** Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structure framing components. Self-adhered membranes used as flashing shall comply with AAMA 711. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashing shall be installed at all of the following locations:

1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water resistive barrier for subsequent drainage.

2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings.

3. Under and at the ends of masonry, wood or metal copings and sills.

4. Continuously above all projecting wood trim.

5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction.

6. At wall and roof intersections.

7. At built-in gutters.

**AMENDATORY SECTION** (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-0806 Section R806—((Roof ventilation)) Reserved.**

~~((R806.4 Unvented attic assemblies. Unvented attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) shall be permitted if all of the following conditions are met:~~

~~1. The unvented attic space is completely contained within the building thermal envelope.~~

~~2. No interior vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.~~

~~3. Where wood shingles or shakes are used, a minimum 1/4-inch (6 mm) vented air space separates the shingles or shakes and the roofing underlayment above the structural sheathing.~~

~~4. Any air-impermeable insulation shall be a vapor retarder, or shall have a vapor retarder coating or covering in direct contact with the underside of the insulation.~~

~~5. Either items a, b or c below shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing:~~

~~a. Air-impermeable insulation only. Insulation shall be applied in direct contact to the underside of the structural roof sheathing.~~

~~b. Air-permeable insulation only. In addition to the air-impermeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing as specified per Washington climate zone for condensation control.~~

~~i. Climate Zone #1—R-10 minimum rigid board or air-impermeable insulation R-value.~~

~~ii. Climate Zone #2—R-25 minimum rigid board or air-impermeable insulation R-value.~~

~~c. Air-impermeable and air-permeable insulation. The air-impermeable insulation shall be applied in direct contact to the underside of the structural roof sheathing as specified per Washington climate zone for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.~~

~~i. Climate Zone #1—R-10 minimum rigid board or air-impermeable insulation R-value.~~

~~ii. Climate Zone #2—R-25 minimum rigid board or air-impermeable insulation R-value.))~~

**AMENDATORY SECTION** (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-0903 Section R903—Weather protection.**

**R903.4.1 ((Overflow)) Secondary (emergency overflow) drains ((and)) or scuppers.** Where roof drains are required, secondary emergency overflow drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason. Overflow drains having the same size as the roof drains shall be installed with the inlet flow line located 2 inches (51 mm) above the low point of the roof, or overflow scuppers having three times the size of the roof drains and having a minimum opening height of 4 inches (102 mm) shall be installed in the adjacent parapet walls with the inlet flow located 2 inches (51 mm) above the low point of the roof served. The installation and sizing of overflow drains, leaders and conductors shall comply with the plumbing code. Overflow drains shall discharge to an approved location.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-1001 Section R1001—Masonry fireplaces.**

**R1001.7.1 Damper.** Masonry fireplaces shall be equipped with a ferrous metal damper located at least 8 inches (203 mm) above the top of the fireplace opening. Dampers shall be installed in the fireplace or the chimney venting the fireplace, and shall be operable from the room containing the fireplace.

Fireplaces shall be provided with each of the following:

1. Tightly fitting flue dampers, operated by a readily accessible manual or approved automatic control.

EXCEPTION: Fireplaces with gas logs shall be installed in accordance with the International Mechanical Code Section 901, except that the standards for liquefied petroleum gas installations shall be NFPA 58 (Liquefied Petroleum Gas Code) and NFPA 54 (National Fuel Gas Code).

2. An outside source for combustion air ducted into the firebox. The duct shall be at least 6 square inches, and shall be provided with an operable outside air duct damper.

(EXCEPTION: Washington certified fireplaces shall be installed with the combustion air systems necessary for their safe and efficient combustion and specified by the manufacturer in accordance with the Washington State Building Standard 31-2 (WAC 51-50-31200) and IBC Section 2114 (WAC 51-50-2114:))

3. Site built fireplaces shall have tight fitting glass or metal doors, or a flue draft induction fan or as approved for minimizing back-drafting. Factory built fireplaces shall use doors listed for the installed appliance.

NEW SECTION

**WAC 51-51-1002 Section R1002—Masonry heaters.**

**R1002.2 Installation.** Masonry heaters shall be installed in accordance with this section and shall be approved by the department of ecology. Masonry heaters shall comply with one of the following:

1. Masonry heaters shall comply with the requirements of ASTM E 1602; or

2. Masonry heaters shall be *listed* and *labeled* in accordance with UL 1482 and installed in accordance with the manufacturer's installation instructions.

**R1002.2.1 Combustion air and doors.** Masonry heaters shall be provided with both of the following:

1. Primary combustion air ducted from the outside of the structure to the appliance.

2. Tight fitting ceramic glass or metal doors. Flue dampers, when provided, shall have an external control and when in the closed position shall have a net free area of not less than 5% of the flue cross sectional area.

AMENDATORY SECTION (Amending WSR 04-01-109, filed 12/17/03, effective 7/1/04)

**WAC 51-51-1004 Section R1004—Factory-built fireplaces.**

**R1004.1.1 Emission Standards for Factory-built Fireplaces.** ~~((After January 1, 1997,))~~ No new or used factory-built fireplace shall be installed in Washington state unless it is certified and labeled in accordance with procedures and criteria specified in ((the Washington State Building Code Standard 31-2)) ASTM E2558 Standard Test Method for determining particulate matter emission from fires in low mass wood burning fireplaces.

To certify an entire fireplace model line, the internal assembly shall be tested to determine its particulate matter emission performance. Retesting and recertifying is required if the design and construction specifications of the fireplace model line internal assembly change. Testing for certification shall be performed by a Washington state department of ecology (DOE) approved and U.S. Environmental Protection Agency (EPA) accredited laboratory.

**R1004.1.2 Emission Standards for Certified Masonry and Concrete Fireplaces.** ~~((After January 1, 1997, new certified masonry or concrete fireplaces installed in Washington state shall be tested and labeled in accordance with procedures and criteria specified in the Washington State Building Code Standard 31-2.~~

~~To certify an entire fireplace model line, the internal assembly shall be tested to determine its particulate matter emission performance. Retesting and recertifying is required if the design and construction specifications of the fireplace model line internal assembly change. Testing for certification shall be performed by a Washington state department of ecology (DOE) approved and U.S. Environmental Protection Agency (EPA) accredited laboratory.))~~ Masonry and concrete fireplace model lines certified to Washington State Building Code Standard 31-2 prior to July 1, 2013, may retain certification provided the design and construction specifications of the fireplace model line internal assembly do not change.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-1006 Section R1006—Exterior air supply.**

**R1006.2 Solid fuel burning appliances and fireplaces.** Solid fuel burning appliances and fireplaces shall be provided with tight fitting metal or ceramic glass doors, and:

1. A source from outside the structure of primary combustion air, connected to the appliance as per manufacturer's specification. The air inlet shall originate at a point below the fire box. The duct shall be 4 inches or greater in diameter, not exceed 20 feet in length, and be installed as per manufacturer's instructions; or

2. The appliance and manufacturer's recommended combustion air supply, as an installed unit, shall be certified by an independent testing laboratory to have passed Test No. 11-Negative Pressure Test, Section 12.3, of ULC S627-M1984

"Space Heaters for Use with Solid Fuels," modified as follows:

Negative pressure of 8 Pascal shall be initially established with the chamber sealed and the air supply, if not directly connected to the appliance, closed off.

The air supply if not directly connected to the appliance, shall then be opened.

The maximum allowable air exchange rate from chamber leakage and intentional air supply for the unit (appliance with combustion air supply) in the test chamber is 3.5 air changes per hour, or 28 cfm (cubic feet of air per minute), whichever is less.

EXCEPTION: Combustion air may be supplied to the room in which the solid fuel burning appliance is located in lieu of direct ducting, provided that one of the following conditions is met:

1. The solid fuel burning appliance is part of a central heating plant and installed in an unconditioned space in conformance with the International Mechanical Code; or
2. The solid fuel burning appliance is installed in existing construction directly on a concrete floor or surrounded by masonry materials as in a fireplace. The combustion air terminus shall be located as close to the solid fuel burning appliance as possible and shall be provided with a barometric damper or equivalent. The combustion air source shall be specified by the manufacturer or no less than 4 inches in diameter or the equivalent in area or as approved.

~~((R1006.1.1 Factory built fireplaces. This section is not adopted.~~

~~R1006.1.2 Masonry fireplaces. This section is not adopted.~~

~~R1006.2 Exterior air intake.)) R1006.4 Passageway. This section is not adopted.~~

AMENDATORY SECTION (Amending WSR 07-01-090, filed 12/19/06, effective 7/1/07)

#### WAC 51-51-1201 Section M1201—General.

**M1201.1 Scope.** The provisions of Chapters 12 through 24 shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions within buildings. These chapters shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed in this code.

EXCEPTION: The standards for liquefied petroleum gas installations shall be the ((2004)) 2011 Edition of NFPA 58 (Liquefied Petroleum Gas Code) and the ((2006)) 2012 Edition of ANSI Z223.1/NFPA 54 (National Fuel Gas Code).

**M1201.3 Construction documents.** The plans and specifications shall show in sufficient detail pertinent data and features of the materials, equipment and systems as herein governed including, but not limited to: Design criteria, size and type of apparatus and equipment, systems and equipment controls, provisions for combustion air to fuel burning appliances, and other pertinent data to indicate conformance with the requirements of this code.

**M1201.4 Testing.** At the discretion of the building official, flow testing may be required to verify that the mechanical system(s) satisfies the requirements of this code. Specific testing required by other sections of this code shall be performed. Flow testing may be performed using flow hoods measuring at the intake or exhaust points of the system, in-line pitot tube, or pitot-traverse type measurement systems in the duct, short-term tracer gas measurements, or other means approved by the building official.

#### NEW SECTION

#### WAC 51-51-1301 Section M1301—General.

**M1301.2 Identification.** Each length of pipe and tubing and each pipe fitting utilized in a mechanical system shall bear the identification of the manufacturer.

EXCEPTION: The manufacturer identification for fittings and pipe nipples shall be on each piece or shall be printed on the fitting or nipple packaging or provided documentation.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

#### WAC 51-51-1302 Section M1302—(~~General mechanical system requirements~~) Reserved.

~~((M1302.2 Construction Documents. The plans and specifications shall show in sufficient detail pertinent data and features of the materials, equipment and systems as herein governed, including, but not limited to: Design criteria, size and type of apparatus and equipment, systems and equipment controls, provisions for combustion air to fuel burning appliances, and other pertinent data to indicate conformance with the requirements of this code.~~

~~**M1302.3 Testing.** At the discretion of the building official, flow testing may be required to verify that the mechanical system(s) satisfies the requirements of this code. Flow testing may be performed using flow hoods measuring at the intake or exhaust points of the system, in-line pitot tube, or pitot-traverse type measurement systems in the duct, short term tracer gas measurements, or other means approved by the building official.))~~

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

#### WAC 51-51-1415 Section M1415—(~~Masonry heaters~~) Reserved.

~~((M1415.1 General. Masonry heaters shall be approved by the department of ecology and shall contain both of the following:~~

1. ~~Primary combustion air ducted from the outside of the structure to the appliance.~~
2. ~~Tight fitting ceramic glass or metal doors. Flue damper, when provided, shall have an external control and when in the closed position shall have a net free area of not less than 5% of the flue cross sectional area.))~~

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-1507 Section M1507—Mechanical ventilation.**

**M1507.1 General.** ((Source specific exhaust ventilation is required in each kitchen, bathroom, water closet, laundry room, indoor swimming pool, spa, and other rooms where water vapor or cooking odor is produced. The minimum source specific ventilation effective exhaust capacity shall not be less than levels specified in Table M1507.3.

**M1507.3.1 Source Specific Exhaust Fans.** Exhaust fans providing source specific ventilation shall have a minimum fan flow rating not less than 50 cfm at 0.25 inches water gauge for bathrooms, laundries, or similar rooms and 100 cfm at 0.25 inches water gauge for kitchens. Manufacturers' fan flow ratings shall be determined as per HVI 916 (April 1995) or AMCA 210.

EXCEPTION: Where a range hood or down draft exhaust fan is used to satisfy the source specific ventilation requirements for kitchens, the range hood or down draft exhaust shall not be less than 100 cfm at 0.10 inches water gauge.

~~**M1507.3.2 Source Specific Ventilation Controls.** Source specific ventilation systems shall be controlled by manual switches, dehumidistats, timers, or other approved means. Source specific ventilation system controls shall be readily accessible.~~

~~**M1507.3.3 Source Specific Ventilation Ducts.** Source specific ventilation ducts shall terminate outside the building. Exhaust ducts shall be equipped with back draft dampers. All exhaust ducts in unconditioned spaces shall be insulated to a minimum of R-4. Terminal elements shall have at least the equivalent net free area of the duct work. Terminal elements for exhaust fan duct systems shall be screened or otherwise protected from entry by leaves or other material. Minimum 50% net free area shall meet the requirements of R303.5.))~~ Local exhaust and whole-house mechanical ventilation systems and equipment shall be designed in accordance with this section.

**M1507.2 Recirculation of air.** Exhaust air from bathrooms and toilet rooms shall not be recirculated within a residence or to another dwelling unit and shall be exhausted directly to the outdoors. Exhaust air from bathrooms and toilet rooms shall not discharge into an attic, crawl space or other areas of the building.

**M1507.3 Whole-house mechanical ventilation system.** Whole-house mechanical ventilation systems shall be designed in accordance with Sections M1507.3.1 through M1507.3.3.

**M1507.3.1 System design.** Each dwelling unit or guestroom shall be equipped with a ventilation system complying with Section M1507.3.4, M1507.3.5, M1507.3.6 or M1507.3.7. Compliance is also permitted to be demonstrated through compliance with the International Mechanical Code.

**M1507.3.2 Control and operation.**

1. Location of controls. Controls for all ventilation systems shall be readily accessible by the occupant.

2. Instructions. Operating instructions for whole-house ventilation systems shall be provided to the occupant by the installer of the system.

3. Local exhaust systems. Local exhaust systems shall be controlled by manual switches, dehumidistats, timers, or other approved means.

4. Continuous whole-house ventilation systems. Continuous whole-house ventilation systems shall operate continuously. Exhaust fans, forced-air system fans, or supply fans shall be equipped with "fan on" as override controls. Controls shall be capable of operating the ventilation system without energizing other energy-consuming appliances. A label shall be affixed to the controls that reads "Whole House Ventilation (see operating instructions)."

5. Intermittent whole-house ventilation systems. Intermittent whole-house ventilation systems shall comply with the following:

5.1. They shall be capable of operating intermittently and continuously.

5.2. They shall have controls capable of operating the exhaust fans, forced-air system fans, or supply fans without energizing other energy-consuming appliances.

5.3. The ventilation rate shall be adjusted according to the exception in Section 403.8.5.1.

5.4. The system shall be designed so that it can operate automatically based on the type of control timer installed.

5.5. The intermittent mechanical ventilation system shall operate at least one hour out of every four.

5.6. The system shall have a manual control and automatic control, such as a 24-hour clock timer.

5.7. At the time of final inspection, the automatic control shall be set to operate the whole-house fan according to the schedule used to calculate the whole-house fan sizing.

5.8. A label shall be affixed to the control that reads "Whole House Ventilation (see operating instructions)."

**M1507.3.2.1 Operating instructions.** Installers shall provide the manufacturer's installation, operating instructions, and a whole-house ventilation system operation description.

**M1507.3.3 Mechanical ventilation rate.** The whole-house mechanical ventilation system shall provide outdoor air to each habitable space at a continuous rate of not less than that determined in accordance with Table M1507.3.3(1).

EXCEPTION: The whole-house mechanical ventilation system is permitted to operate intermittently where the system has controls that enable operation for not less than 25 percent of each 4-hour segment and the ventilation rate prescribed in Table M1507.3.3(1) is multiplied by the factor determined in accordance with Table M1507.3.3(2).



**Table M1507.3.3(1)**  
**Continuous Whole-House Mechanical Ventilation System Airflow Rate Requirements**

<b>Dwelling Unit Floor Area (square feet)</b>	<b>NUMBER OF BEDROOMS</b>				
	<b>0 - 1</b>	<b>2 - 3</b>	<b>4 - 5</b>	<b>6 - 7</b>	<b>&gt; 7</b>
	<b>Airflow in CFM</b>				
<u>&lt; 1,500</u>	<u>30</u>	<u>45</u>	<u>60</u>	<u>75</u>	<u>90</u>
<u>1,501 - 3,000</u>	<u>45</u>	<u>60</u>	<u>75</u>	<u>90</u>	<u>105</u>
<u>3,001 - 4,500</u>	<u>60</u>	<u>75</u>	<u>90</u>	<u>105</u>	<u>120</u>
<u>4,501 - 6,000</u>	<u>75</u>	<u>90</u>	<u>105</u>	<u>120</u>	<u>135</u>
<u>6,001 - 7,500</u>	<u>90</u>	<u>105</u>	<u>120</u>	<u>135</u>	<u>150</u>
<u>&gt; 7,501</u>	<u>105</u>	<u>120</u>	<u>135</u>	<u>150</u>	<u>165</u>

For SI: 1 square foot = 0.0929 m<sup>2</sup>, 1 cubic foot per minute = 0.0004719 m<sup>3</sup>/S.

**Table M1507.3.3(2)**  
**Intermittent Whole-House Mechanical Ventilation Rate Factors<sup>a, b</sup>**

<b>Run-Time Percentage in Each 4-Hour Segment</b>	<b>25%</b>	<b>33%</b>	<b>50%</b>	<b>66%</b>	<b>75%</b>	<b>100%</b>
<b>Factor<sup>a</sup></b>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1.5</u>	<u>1.3</u>	<u>1.0</u>

<sup>a</sup> For ventilation system run time values between those given, the factors are permitted to be determined by interpolation.

<sup>b</sup> Extrapolation beyond the table is prohibited.

**M1507.3.4 Whole-house ventilation using exhaust fans.** This section establishes minimum prescriptive requirements for whole-house ventilation systems using exhaust fans. A system which meets all the requirements of this section shall be deemed to satisfy the requirements for a whole-house ventilation system.

**M1507.3.4.1 Whole-house ventilation fans.** Exhaust fans providing whole-house ventilation shall have a flow rating at 0.25 inches water gauge as specified in Table M1507.3.3(1). Manufacturers' fan flow ratings shall be determined according to HVI 916 or AMCA 210.

**M1507.3.4.2 Fan noise.** Whole-house fans located 4 feet or less from the interior grille shall have a sone rating of 1.0 or less measured at 0.1 inches water gauge. Manufacturer's noise ratings shall be determined as per HVI 915 (March 2009). Remotely mounted fans shall be acoustically isolated from the structural elements of the building and from attached duct work using insulated flexible duct or other approved material.

**M1507.3.4.3 Fan controls.** The whole-house ventilation fan shall meet the requirements of Section M1507.3.2 and M1507.3.2.1.

**M1507.3.4.4 Outdoor air inlets.** Outdoor air shall be distributed to each habitable space by individual outdoor air inlets. Where outdoor air supplies are separated from exhaust points by doors, provisions shall be made to ensure air flow by installation of distribution ducts, undercutting doors, installation of grilles, transoms, or similar means. Doors shall be undercut to a minimum of 1/2 inch above the surface of the finish floor covering.

Individual room outdoor air inlets shall:

1. Have controllable and secure openings;

2. Be sleeved or otherwise designed so as not to compromise the thermal properties of the wall or window in which they are placed;

3. Provide not less than 4 square inches of net free area of opening for each habitable space. Any inlet or combination of inlets which provide 10 cfm at 10 Pascals are deemed equivalent to 4 square inches net free area.

Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:

1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.
5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.
6. Attic, crawl spaces, or garages.

**M1507.3.5 Whole-house ventilation integrated with a forced-air system.** This section establishes minimum prescriptive requirements for whole-house ventilation systems integrated with forced-air ventilation systems. A system which meets all the requirements of this section shall be deemed to satisfy the requirements for a whole-house ventilation system.

**M1507.3.5.1 Integrated whole-house ventilation systems.** Integrated whole-house ventilation systems shall provide outdoor air at the rate calculated using Section M1507.3.3. Integrated forced-air ventilation systems shall distribute outdoor air to each habitable space through the forced-air system

ducts. Integrated forced-air ventilation systems shall have an outdoor air inlet duct connecting a terminal element on the outside of the building to the return air plenum of the forced-air system, at a point within 4 feet upstream of the air handler. The outdoor air inlet duct connection to the return air stream shall be located upstream of the forced-air system blower and shall not be connected directly into a furnace cabinet to prevent thermal shock to the heat exchanger. The system will be equipped with a motorized damper connected to the automatic ventilation control as specified in Section M1507.3.2. The required flow rate shall be verified by field testing with a flow hood or a flow measuring station.

**M1507.3.5.2 Ventilation duct insulation.** All supply ducts in the conditioned space shall be insulated to a minimum of R-4.

**M1507.3.5.3 Outdoor air inlets.** Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:

1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.
5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.
6. Attic, crawl spaces, or garages.

**M1507.3.6 Whole-house ventilation using a supply fan.** This section establishes minimum prescriptive requirements for whole-house ventilation systems using an inline supply fan. A system which meets all the requirements of this section shall be deemed to satisfy the requirements for a whole-house ventilation system.

**M1507.3.6.1 Outdoor air.** Supply fan ventilation systems shall distribute outdoor air to each habitable space through the forced-air system ducts or through dedicated ducts to each habitable space. Supply fans shall have the capacity to provide the amount of outdoor air specified in Table M1507.3.3(1) at 0.40 inches water gauge as per HVI 916. The outdoor air must be filtered before it is delivered to habitable spaces. The filter may be located at the intake device, in line with the fan, or, in the case of a connection to the return plenum of the air handler, using the furnace filter. An outdoor air inlet shall be connected to either the supply or return air stream.

**M1507.3.6.2 Ducts.** An outdoor air inlet duct connection to the supply air stream shall be located downstream of the forced-air system blower. An outdoor air inlet duct connection to the return air stream shall be located at least 4 feet upstream of the forced-air system blower and its filter. Neither type of duct shall be connected directly into a furnace cabinet to prevent thermal shock to the heat exchanger. The outdoor air inlet duct shall be prescriptively sized in accordance with Table M1507.3.6.2. The terminal element on the

outside of the building shall be sized 2 inches in diameter larger than the outdoor air inlet duct.

**Table M1507.3.6.2  
Prescriptive Supply Fan Duct Sizing**

<b>Supply Fan Tested cfm at 0.40" wg</b>		
<b>Specified Volume from Table M1508.2</b>	<b>Minimum Smooth Duct Diameter</b>	<b>Minimum Flexible Duct Diameter</b>
50 - 90 cfm	4 inch	5 inch
90 - 150 cfm	5 inch	6 inch
150 - 250 cfm	6 inch	7 inch
250 - 400 cfm	7 inch	8 inch

**M1507.3.6.3 Dampers.** The system shall be equipped with a back-draft damper and one of the following:

1. A calibrated manual volume damper installed and set to meet the measured flow rates specified in Table M1507.3.3(1) by field testing with a pressure gauge and/or following manufacturer's installation instructions; or
2. A manual volume damper installed and set to meet the measured flow rates specified in Table M1507.3.3(1) by field testing with a flow hood or a flow measuring station; or
3. An automatic flow-regulating device sized to the specified flow rates in Table M1507.3.3(1) which provides constant flow over a pressure range of 0.20 to 0.60 inches water gauge.

**M1507.3.6.4 Ventilation duct insulation.** All supply ducts in the conditioned space shall be insulated to a minimum of R-4.

**M1507.3.6.5 Outdoor air inlets.** Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:

1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.
5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.
6. Attic, crawl spaces, or garages.

**M1507.3.7 Whole-house ventilation using a heat recovery ventilation system.** This section establishes minimum prescriptive requirements for whole-house ventilation using a heat recovery ventilation system.

**M1507.3.7.1 Heat recovery ventilation systems.** All duct work in heat recovery systems shall be sized and installed per the manufacturer's instructions. System minimum flow rating shall be not less than that specified in Table M1507.3.3(1). Heat recovery ventilation systems shall have a filter on the upstream side of the heat exchanger in both the intake and exhaust airstreams with a minimum efficiency rating value (MERV) of 6.

**M1507.3.7.2 Ventilation duct insulation.** All supply ducts in the conditioned space installed upstream of the heat exchanger shall be insulated to a minimum of R-4.

**M1507.3.7.3 Outdoor air inlets.** Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:

1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.
5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.
6. Attic, crawl spaces, or garages.

**M1507.4 Local exhaust.** Local exhaust shall be provided in each kitchen, bathroom, water closet, laundry room, indoor swimming pool, spa, and other rooms where water vapor or cooking odor is produced. *Local exhaust systems* shall be designed to have the capacity to exhaust the minimum air flow rate determined in accordance with Table M1507.4.

**Table M1507.4  
Minimum Required Local Exhaust Rates  
For One- and Two-Family Dwellings**

<u>AREA TO BE EXHAUSTED</u>	<u>EXHAUST RATES</u>
Kitchens	100 cfm intermittent or 25 cfm continuous
Bathrooms - Toilet Rooms	Mechanical exhaust capacity of 50 cfm intermittent or 20 cfm continuous

For SI: 1 cubic foot per minute = 0.0004719 m<sup>3</sup>/s.

**M1507.4.1 Local exhaust fans.** Exhaust fans providing local exhaust shall have a minimum fan flow rating not less than 50 cfm at 0.25 inches water gauge for bathrooms, laundries, or similar rooms and 100 cfm at 0.25 inches water gauge for kitchens. Manufacturers' fan flow ratings shall be determined as per HVI 916 (April 1995) or AMCA 210.

**EXCEPTION:** Where a range hood or down draft exhaust fan is used to satisfy the local exhaust requirements for kitchens, the range hood or down draft exhaust shall not be less than 100 cfm at 0.10 inches water gauge.

**M1507.4.2 Local exhaust controls.** Local exhaust systems shall be controlled by manual switches, dehumidistats, timers, or other approved means. Local exhaust system controls shall be readily accessible.

**AMENDATORY SECTION** (Amending WSR 12-07-019, filed 3/12/12, effective 4/12/12)

**WAC 51-51-1508 Section M1508—((Whole house ventilation)) Reserved.**

**((M1508.1 General.** This section establishes minimum prescriptive design requirements for whole house ventilation

systems. Each dwelling unit or guest room shall be equipped with a ventilation system complying with Section M1508.4, M1508.5, M1508.6 or M1508.7. Compliance is also permitted to be demonstrated through compliance with the International Mechanical Code.

**M1508.1.1 Control and Operation:**

1. Location of controls. Controls for all ventilation systems shall be readily accessible by the occupant.
2. Instructions. Operating instructions for whole house ventilation systems shall be provided to the occupant by the installer of the system.
3. Source specific ventilation systems. Source specific ventilation systems shall be controlled by manual switches, dehumidistats, timers, or other approved means.
4. Continuous whole house ventilation systems. Continuous whole house ventilation systems shall operate continuously. Exhaust fans, forced air system fans, or supply fans shall be equipped with "fan on" as override controls. Controls shall be capable of operating the ventilation system without energizing other energy-consuming appliances. A label shall be affixed to the controls that reads "Whole House Ventilation (see operating instructions)."
5. Intermittent whole house ventilation systems. Intermittent whole house ventilation systems shall comply with the following:
  - 5.1 They shall be capable of operating intermittently and continuously.
  - 5.2 They shall have controls capable of operating the exhaust fans, forced air system fans, or supply fans without energizing other energy-consuming appliances.
  - 5.3 The ventilation rate shall be adjusted in accordance with Section M1508.3.
  - 5.4 The system shall be designed so that it can operate automatically based on the type of control timer installed.
  - 5.5 The intermittent mechanical ventilation system shall operate at least one hour out of every twelve.
  - 5.6 The system shall have a manual control and automatic control, such as a 24-hour clock timer.
  - 5.7 At the time of final inspection, the automatic control shall be set to operate the whole house fan according to the schedule used to calculate the whole house fan sizing.
  - 5.8 A label shall be affixed to the control that reads "Whole House Ventilation (see operating instructions)."

**M1508.2 Continuously Operating Exhaust Ventilation Systems.** Continuously operating exhaust ventilation systems shall provide the minimum flow rates specified in Table M1508.2.

**TABLE M1508.2  
MINIMUM VENTILATION RATES  
(Continuously operating systems)**

	<b>Bedrooms</b>				
	<b>0-1</b>	<b>2-3</b>	<b>4-5</b>	<b>6-7</b>	<b>&gt;7</b>
<1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150

	Bedrooms				
	0-1	2-3	4-5	6-7	>7
>7500	105	120	135	150	165

**M1508.3 Intermittently Operating Ventilation Systems.** The delivered ventilation rate for intermittently operating ventilation systems shall be the combination of its delivered capacity from Table M1508.2, and its ventilation effectiveness and daily fractional operation time from Table M1508.3.

$$Q_f = Q_r / (\epsilon f)$$

Where:

- $Q_f$  = Fan flow rate
- $Q_r$  = Ventilation air requirement (from Table M1508.2)
- $\epsilon$  = Ventilation effectiveness (from Table M1508.3)
- $f$  = Fractional operation time

**TABLE M1508.3**

**VENTILATION EFFECTIVENESS FOR INTERMITTENT FANS**

Daily Fractional Operation Time, f	Ventilation Effectiveness, $\epsilon$
$f \leq 35\%$	0.33
$35\% \leq f < 60\%$	0.50
$60\% \leq f < 80\%$	0.75
$80\% \leq f$	1.0

For systems designed to operate at least once every three hours, ventilation effectiveness can be 1.0.

**M1508.4 Whole House Ventilation Using Exhaust Fans.** This section establishes minimum prescriptive requirements for whole house ventilation systems using exhaust fans. A system which meets all the requirements of this section shall be deemed to satisfy the requirements for a whole house ventilation system.

**M1508.4.1 Whole House Ventilation Fans.** Exhaust fans providing whole house ventilation shall have a flow rating at 0.25 inches water gauge as specified in Table M1508.2 or M1508.3, as applicable. Manufacturers' fan flow ratings shall be determined according to HVI 916 (April 1995) or AMCA 210.

**M1508.4.2 Fan Noise.** Whole house fans located 4 feet or less from the interior grille shall have a sone rating of 1.0 or less measured at 0.1 inches water gauge. Manufacturer's noise ratings shall be determined as per HVI 915 (October 1995). Remotely mounted fans shall be acoustically isolated from the structural elements of the building and from attached duct work using insulated flexible duct or other approved material.

**M1508.4.3 Exhaust Ducts.** All exhaust ducts shall terminate outside the building. Exhaust ducts shall be equipped with back draft dampers. All exhaust ducts in unconditioned spaces shall be insulated to a minimum of R-4.

**M1508.4.4 Outdoor Air Inlets.** Outdoor air shall be distributed to each habitable room by individual outdoor air inlets. Where outdoor air supplies are separated from exhaust points by doors, provisions shall be made to ensure air flow by installation of distribution ducts, undercutting doors, installation of grilles, transoms, or similar means. Doors shall be undercut to a minimum of 1/2 inch above the surface of the finish floor covering.

Individual room outdoor air inlets shall:

1. Have controllable and secure openings;
2. Be sleeved or otherwise designed so as not to compromise the thermal properties of the wall or window in which they are placed;
3. Provide not less than 4 square inches of net free area of opening for each habitable space. Any inlet or combination of inlets which provide 10 cfm at 10 Pascals as determined by the Home Ventilating Institute Air Flow Test Standard (HVI 901 November 1996) are deemed equivalent to 4 square inches net free area.

Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:

1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.
5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.
6. Attic, crawl spaces, or garages.

**M1508.5 Whole House Ventilation Integrated With a Forced Air System.** This section establishes minimum prescriptive requirements for whole house ventilation systems integrated with forced air ventilation systems. A system which meets all the requirements of this section shall be deemed to satisfy the requirements for a whole house ventilation system.

**M1508.5.1 Integrated Whole House Ventilation Systems.** Integrated whole house ventilation systems shall provide outdoor air at the rate calculated using Section M1508.2 or M1508.3, as applicable. Integrated forced air ventilation systems shall distribute outdoor air to each habitable room through the forced air system ducts. Integrated forced air ventilation systems shall have an outdoor air inlet duct connecting a terminal element on the outside of the building to the return air plenum of the forced air system, at a point within 4 feet upstream of the air handler. The outdoor air inlet duct connection to the return air stream shall be located upstream of the forced air system blower and shall not be connected directly into a furnace cabinet to prevent thermal shock to the heat exchanger. The system will be equipped with a motorized damper connected to the automatic ventilation control as specified in Section M1508.5.2. The required flow rate shall be verified by field testing with a flow hood or a flow measuring station.

**M1508.5.2 Ventilation Duct Insulation.** All supply ducts in the conditioned space shall be insulated to a minimum of R-4.

**M1508.5.3 Outdoor Air Inlets.** Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:

1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.
5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.
6. Attic, crawl spaces, or garages.

**M1508.6 Whole House Ventilation Using a Supply Fan.** This section establishes minimum prescriptive requirements for whole house ventilation systems using an inline supply fan. A system which meets all the requirements of this section shall be deemed to satisfy the requirements for a whole house ventilation system.

**M1508.6.1 Outdoor Air.** Supply fan ventilation systems shall distribute outdoor air to each habitable room through the forced-air system ducts or through dedicated ducts to each habitable room. Supply fans shall have the capacity to provide the amount of outdoor air specified in Table M1508.2 or M1508.3, as applicable, at 0.40 inches water gauge as per HVI 916 (April 1995). The outdoor air must be filtered before it is delivered to habitable rooms. The filter may be located at the intake device, in line with the fan, or, in the case of a connection to the return plenum of the air handler, using the furnace filter. An outdoor air inlet shall be connected to either the supply or return air stream.

**M1508.6.2 Ducts.** An outdoor air inlet duct connection to the supply air stream shall be located downstream of the forced-air system blower. An outdoor air inlet duct connection to the return air stream shall be located at least 4 feet upstream of the forced-air system blower and its filter. Neither type of duct shall be connected directly into a furnace cabinet to prevent thermal shock to the heat exchanger. The outdoor air inlet duct shall be prescriptively sized in accordance with Table M1508.6.2. The terminal element on the outside of the building shall be sized 2 inches in diameter larger than the outdoor air inlet duct.

**TABLE M1508.6.2  
PRESCRIPTIVE SUPPLY FAN DUCT SIZING**

Supply Fan Tested cfm at 0.40" wg		
Specified Volume from Table M1508.2	Minimum Smooth Duct Diameter	Minimum Flexible Duct Diameter
50 - 90 cfm	4 inch	5 inch
90 - 150 cfm	5 inch	6 inch
150 - 250 cfm	6 inch	7 inch
250 - 400 cfm	7 inch	8 inch

**M1508.6.3 Dampers.** The system shall be equipped with a back-draft damper and one of the following:

1. A calibrated manual volume damper installed and set to meet the measured flow rates specified in Table M1508.3 by field testing with a pressure gauge and/or following manufacturer's installation instructions; or
2. A manual volume damper installed and set to meet the measured flow rates specified in Table M1508.3 by field testing with a flow hood or a flow measuring station; or
3. An automatic flow-regulating device sized to the specified flow rates in Table M1508.2 which provides constant flow over a pressure range of 0.20 to 0.60 inches water gauge.

**M1508.6.4 Ventilation Duct Insulation.** All supply ducts in the conditioned space shall be insulated to a minimum of R-4.

**M1508.6.5 Outdoor Air Inlets.** Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:

1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.
5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.
6. Attic, crawl spaces, or garages.

**M1508.7 Whole House Ventilation Using a Heat Recovery Ventilation System.** This section establishes minimum prescriptive requirements for whole house ventilation using a heat recovery ventilation system.

**M1508.7.1 Heat Recovery Ventilation Systems.** All duct work in heat recovery systems shall be sized and installed per the manufacturer's instructions. System minimum flow rating shall be not less than that specified in Table M1508.2 or M1508.3, as applicable. Heat recovery ventilation systems shall have a filter on the upstream side of the heat exchanger in both the intake and exhaust airstreams with a minimum efficiency ratings value (MERV) of 6.

**M1508.7.2 Ventilation Duct Insulation.** All supply ducts in the conditioned space installed upstream of the heat exchanger shall be insulated to a minimum of R-4.

**M1508.7.3 Outdoor Air Inlets.** Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:

1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.

5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.

6. Attic, crawl spaces, or garages.)

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-1600 Chapter 16—Duct systems.**

**M1601.1.1 Above-ground duct systems.** Above-ground duct systems shall conform to the following:

1. Equipment connected to duct systems shall be designed to limit discharge air temperature to a maximum of 250°F (121°C).

2. Factory-made air ducts shall be constructed of Class 0 or Class 1 materials as designated in Table M1601.1.1(1).

3. Fibrous duct construction shall conform to the SMACNA Fibrous Glass Duct Construction Standards or NAIMA Fibrous Glass Duct Construction Standards.

4. Minimum thickness of metal duct material shall be as listed in Table M1601.1.1(2). Galvanized steel shall conform to ASTM A 653. Metallic ducts shall be fabricated in accordance with SMACNA Duct Construction Standards Metal and Flexible.

5. Use of gypsum products to construct return air ducts or plenums is permitted, provided that the air temperature does not exceed 125°F (52°C) and exposed surfaces are not subject to condensation.

6. Duct systems shall be constructed of materials having a flame spread index not greater than 200.

7. Stud wall cavities and the spaces between solid floor joists shall not be used as a duct or an air plenum in new construction. For existing systems, stud wall cavities and the spaces between solid floor joists to be used as air plenums shall comply with the following:

7.1. These cavities or spaces shall not be used as a plenum for supply air.

7.2. These cavities or spaces shall not be part of a required fire-resistance-rated assembly.

7.3. Stud wall cavities shall not convey air from more than one floor level.

7.4. Stud wall cavities and joist-space plenums shall be isolated from adjacent concealed spaces by tight-fitting fire blocking in accordance with Section R602.8.

7.5. Stud wall cavities in the outside walls of building envelope assemblies shall not be utilized as air plenums.

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-1700 Chapter 17—Combustion air.**

**M1701.1 Scope.** Solid-fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with NFPA 31. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct-vent appliances. The requirements for combustion and dilu-

tion air for gas-fired appliances shall be in accordance with Chapter 24.

Fireplaces shall comply with ~~((Section 1001))~~ Chapter 10.

AMENDATORY SECTION (Amending WSR 04-01-109, filed 12/17/03, effective 7/1/04)

**WAC 51-51-2000 Chapter 20—~~((Boilers and water heaters))~~ Reserved.** ~~((Boilers and Unfired Pressure Vessels are regulated by chapter 70.79 RCW and chapter 296-104 WAC.~~

~~SECTION M2001—BOILERS, is not adopted.~~

~~SECTION M2002—OPERATING AND SAFETY CONTROLS, is not adopted.~~

~~SECTION M2003—EXPANSION TANKS, is not adopted.))~~

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-4400 Chapter 44—Referenced standards.**

~~((Washington State Building Code Standard 31-2 STANDARD TEST METHOD FOR PARTICULATE EMISSIONS FROM FIREPLACES~~

~~See Section R1004.1, International Residential Code Standard is located in International Building Code, Chapter 35))~~

AMENDATORY SECTION (Amending WSR 10-03-098, filed 1/20/10, effective 7/1/10)

**WAC 51-51-60105 Appendix R—Dwelling unit fire sprinkler systems.**

~~((AR105.1 General. Where installed, residential fire sprinkler systems, or portions thereof, shall be in accordance with NFPA 13D or Appendix R, which shall be considered equivalent to NFPA 13D. Appendix R shall apply to stand-alone and multipurpose wet pipe sprinkler systems that do not include the use of antifreeze. A multipurpose fire sprinkler system shall supply domestic water to both fire sprinklers and plumbing fixtures. A stand-alone sprinkler system shall be separate and independent from the water distribution system.~~

~~**AR105.1.1 Required sprinkler locations.** Sprinklers shall be installed to protect all areas of a dwelling unit.~~

~~EXCEPTIONS:~~

~~1. Attics, crawl spaces and normally unoccupied concealed spaces that do not contain fuel-fired appliances do not require sprinklers. In attics, crawl spaces and normally unoccupied concealed spaces that contain fuel-fired equipment, a sprinkler shall be installed above the equipment; however, sprinklers shall not be required in the remainder of the space.~~

~~2. Clothes closets, linen closets and pantries not exceeding 24 square feet (2.2 m<sup>2</sup>) in area, with the smallest dimension not greater than 3 feet (915 mm) and having wall and ceiling surfaces of gypsum board.~~

~~3. Bathrooms not more than 55 square feet (5.1 m<sup>2</sup>) in area.~~

4. Garages; carports; exterior porches; unheated entry areas, such as mud rooms, that are adjacent to an exterior door; and similar areas.

b. Distances shall be measured in a straight line from the nearest edge of the heat source to the nearest edge of the sprinkler.

**AR105.2 Sprinklers.** Sprinklers shall be new listed residential sprinklers and shall be installed in accordance with the sprinkler manufacturer's installation instructions.

**AR105.2.4 Sprinkler coverage.** Sprinkler coverage requirements and sprinkler obstruction requirements shall be in accordance with Sections AR105.2.4.1 and AR105.2.4.2.

**AR105.2.1 Temperature rating and separation from heat sources.** Except as provided for in Section AR105.2.2, sprinklers shall have a temperature rating of not less than 135°F (57°C) and not more than 170°F (77°C). Sprinklers shall be separated from heat sources as required by the sprinkler manufacturer's installation instructions.

**AR105.2.4.1 Coverage area limit.** The area of coverage of a single sprinkler shall not exceed 400 square feet (37 m<sup>2</sup>) and shall be based on the sprinkler listing and the sprinkler manufacturer's installation instructions.

**AR105.2.2 Intermediate temperature sprinklers.** Sprinklers shall have an intermediate temperature rating not less than 175°F (79°C) and not more than 225°F (107°C) where installed in the following locations:

**AR105.2.4.2 Obstructions to coverage.** Sprinkler discharge shall not be blocked by obstructions unless additional sprinklers are installed to protect the obstructed area. Sprinkler separation from obstructions shall comply with the minimum distances specified in the sprinkler manufacturer's instructions.

1. Directly under skylights, where the sprinkler is exposed to direct sunlight.
2. In attics.
3. In concealed spaces located directly beneath a roof.
4. Within the distance to a heat source as specified in Table AR105.2.2.

**AR105.2.4.2.1 Additional requirements for pendent sprinklers.** Pendent sprinklers within 3 feet (915 mm) of the center of a ceiling fan, surface-mounted ceiling luminaire or similar object shall be considered to be obstructed, and additional sprinklers shall be installed.

**AR105.2.3 Freezing areas.** Piping shall be protected from freezing. Where sprinklers are required in areas that are subject to freezing, dry side wall or dry pendent sprinklers extending from a nonfreezing area into a freezing area shall be installed.

**AR105.2.4.2.2 Additional requirements for sidewall sprinklers.** Sidewall sprinklers within 5 feet (1524 mm) of the center of a ceiling fan, surface-mounted ceiling luminaire or similar object shall be considered to be obstructed, and additional sprinklers shall be installed.

TABLE AR105.2.2

LOCATIONS WHERE INTERMEDIATE TEMPERATURE SPRINKLERS ARE REQUIRED

HEAT SOURCE	RANGE OF DISTANCE FROM HEAT SOURCE WITHIN WHICH INTERMEDIATE TEMPERATURE SPRINKLERS ARE REQUIRED <sup>a,b</sup> (inches)
Fireplace, side of open or recessed fireplace	12 to 36
Fireplace, front of recessed fireplace	36 to 60
Coal and wood burning stove	12 to 42
Kitchen range top	9 to 18
Oven	9 to 18
Vent connector or chimney connector	9 to 18
Heating duct, not insulated	9 to 18
Hot water pipe, not insulated	6 to 12
Side of ceiling or wall warm air register	12 to 24
Front of wall-mounted warm air register	18 to 36
Water heater, furnace or boiler	3 to 6
Luminaire up to 250 watts	3 to 6
Luminaire 250 watts up to 499 watts	6 to 12

**AR105.2.5 Sprinkler installation on systems assembled with solvent cement.** The solvent cementing of threaded adapter fittings shall be completed and threaded adapters for sprinklers shall be verified as being clear of excess cement prior to the installation of sprinklers on systems assembled with solvent cement.

**AR105.2.6 Sprinkler modifications prohibited.** Painting, caulking or modifying of sprinklers shall be prohibited. Sprinklers that have been painted, caulked, modified or damaged shall be replaced with new sprinklers.

**AR105.3 Sprinkler piping system.** Sprinkler piping shall be supported in accordance with the requirements for cold water distribution piping. Sprinkler piping shall comply with all requirements for cold water distribution piping. For multi-purpose piping systems, the sprinkler piping shall connect to and be a part of the cold water distribution piping system.

**AR105.3.1 Nonmetallic pipe and tubing.** Nonmetallic pipe and tubing, such as CPVC and PEX, shall be listed for use in residential fire sprinkler systems.

**AR105.3.1.1 Nonmetallic pipe protection.** Nonmetallic pipe and tubing systems shall be protected from exposure to the living space by a layer of not less than 3/8-inch (9.5 mm) thick gypsum wallboard, 1/2-inch thick plywood (13 mm), or other material having a 15-minute fire rating.

For IS: 1 inch = 25.4 mm.

a. Sprinklers shall not be located at distances less than the minimum table distance unless the sprinkler listing allows a lesser distance.

EXCEPTIONS:

1. Pipe protection shall not be required in areas that do not require protection with sprinklers as specified in Section AR105.1.1.
2. Pipe protection shall not be required where exposed piping is permitted by the pipe listing.

**AR105.3.2 Shutoff valves prohibited.** With the exception of shutoff valves for the entire water distribution system, valves shall not be installed in any location where the valve would isolate piping serving one or more sprinklers.

**AR105.3.3 Single dwelling limit.** Piping beyond the service valve located at the beginning of the water distribution system shall not serve more than one dwelling.

**AR105.3.4 Drain.** A means to drain the sprinkler system shall be provided on the system side of the water distribution shutoff valve.

**AR105.4 Determining system design flow.** The flow for sizing the sprinkler piping system shall be based on the flow rating of each sprinkler in accordance with Section AR105.4.1 and the calculation in accordance with Section AR105.4.2.

**AR105.4.1 Determining required flow rate for each sprinkler.** The minimum required flow for each sprinkler shall be determined using the sprinkler manufacturer's published data for the specific sprinkler model based on all of the following:

1. The area of coverage.
2. The ceiling configuration.
3. The temperature rating.
4. Any additional conditions specified by the sprinkler manufacturer.

**AR105.4.2 System design flow rate.** The design flow rate for the system shall be based on the following:

1. The design flow rate for a room having only one sprinkler shall be the flow rate required for that sprinkler, as determined by Section AR105.4.1.

2. The design flow rate for a room having two or more sprinklers shall be determined by identifying the sprinkler in that room with the highest required flow rate, based on Section AR105.4.1, and multiplying that flow rate by 2.

3. Where the sprinkler manufacturer specifies different criteria for ceiling configurations that are not smooth, flat and horizontal, the required flow rate for that room shall comply with the sprinkler manufacturer's instructions.

4. The design flow rate for the sprinkler system shall be the flow required by the room with the largest flow rate, based on Items 1, 2 and 3.

5. For the purpose of this section, it shall be permissible to reduce the design flow rate for a room by subdividing the space into two or more rooms, where each room is evaluated separately with respect to the required design flow rate. Each room shall be bounded by walls and a ceiling. Openings in walls shall have a lintel not less than 8 inches (203 mm) in depth and each lintel shall form a solid barrier between the ceiling and the top of the opening.

**AR105.5 Water supply.** The water supply shall provide not less than the required design flow rate for sprinklers in accordance with Section AR105.4.2 at a pressure not less than that used to comply with Section AR105.6.

**AR105.5.1 Water supply from individual sources.** Where a dwelling unit water supply is from a tank system, a private well system or a combination of these, the available water

supply shall be based on the minimum pressure control setting for the pump.

**AR105.5.2 Required capacity.** The water supply shall have the capacity to provide the required design flow rate for sprinklers for a period of time as follows:

1. 7 minutes for dwelling units one story in height and less than 2,000 square feet (186 m<sup>2</sup>) in area.
2. 10 minutes for dwelling units two or more stories in height or equal to or greater than 2,000 square feet (186 m<sup>2</sup>) in area.

Where a well system, a water supply tank system or a combination thereof is used, any combination of well capacity and tank storage shall be permitted to meet the capacity requirement.

**AR105.6 Pipe sizing.** The piping to sprinklers shall be sized for the flow required by Section AR105.4.2. The flow required to supply the plumbing fixtures shall not be required to be added to the sprinkler design flow.

**AR105.6.1 Method of sizing pipe.** Piping supplying sprinklers shall be sized using the prescriptive method in Section AR105.6.2 or by hydraulic calculation in accordance with NFPA 13D. The minimum pipe size from the water supply source to any sprinkler shall be 3/4 inch (19 mm) nominal. Threaded adapter fittings at the point where sprinklers are attached to the piping shall be a minimum of 1/2 inch (13 mm) nominal.

**AR105.6.2 Prescriptive pipe sizing method.** Pipe shall be sized by determining the available pressure to offset friction loss in piping and identifying a piping material, diameter and length using the equation in Section AR105.6.2.1 and the procedure in Section AR105.6.2.2.

**AR105.6.2.1 Available pressure equation.** The pressure available to offset friction loss in the interior piping system ( $P_t$ ) shall be determined in accordance with Equation AR-1.

$$P_t = P_{sup} - PL_{svc} - PL_m - PL_d - PL_e - P_{sp}$$

(Equation AR-1)

Where:

- $P_t$  = Pressure used in applying Tables AR105.6.2(4) through AR105.6.2(9).
- $P_{sup}$  = Pressure available from the water supply source.
- $PL_{svc}$  = Pressure loss in the water service pipe.
- $PL_m$  = Pressure loss in the water meter.
- $PL_d$  = Pressure loss from devices other than the water meter.
- $PL_e$  = Pressure loss associated with changes in elevation.
- $P_{sp}$  = Maximum pressure required by a sprinkler.

**AR105.6.2.2 Calculation procedure.** Determination of the required size for water distribution piping shall be in accordance with the following procedure:

**Step 1—Determine  $P_{sup}$**



Obtain the static supply pressure that will be available from the water main from the water purveyor, or for an individual source, the available supply pressure shall be in accordance with Section AR105.5.1.

**Step 2—Determine  $PL_{sve}$**

Use Table P2904.6.2(1) to determine the pressure loss in the water service pipe based on the selected size of the water service.

**Step 3—Determine  $PL_m$**

Use Table P2904.6.2(2) to determine the pressure loss from the water meter, based on the selected water meter size.

**Step 4—Determine  $PL_d$**

Determine the pressure loss from devices other than the water meter installed in the piping system supplying sprinklers, such as pressure-reducing valves, backflow preventers, water softeners or water filters. Device pressure losses shall be based on the device manufacturer's specifications. The flow rate used to determine pressure loss shall be the rate from Section AR105.4.2, except that 5 gpm (0.3 L/S) shall be added where the device is installed in a water service pipe that supplies more than one dwelling. As alternative to deducting pressure loss for a device, an automatic bypass valve shall be installed to divert flow around the device when a sprinkler activates.

**Step 5—Determine  $PL_e$**

Use Table P2904.6.2(3) to determine the pressure loss associated with changes in elevation. The elevation used in applying the table shall be the difference between the elevation where the water source pressure was measured and the elevation of the highest sprinkler.

**Step 6—Determine  $P_{sp}$**

Determine the maximum pressure required by any individual sprinkler based on the flow rate from Section AR105.4.1. The required pressure is provided in the sprinkler manufacturer's published data for the specific sprinkler model based on the selected flow rate.

**Step 7—Calculate  $P_i$**

Using Equation AR-1, calculate the pressure available to offset friction loss in water distribution piping between the service valve and the sprinklers.

**Step 8—Determine the maximum allowable pipe length**

Use Tables P2904.6.2(4) through P2904.6.2(9) to select a material and size for water distribution piping. The piping material and size shall be acceptable if the developed length of pipe between the service valve and the most remote sprinkler does not exceed the maximum allowable length specified by the applicable table. Interpolation of  $P_i$  between the tabular values shall be permitted.

The maximum allowable length of piping in Tables P2904.6.2(4) through P2904.6.2(9) incorporates an adjustment for pipe fittings, and no additional consideration of friction losses associated with pipe fittings shall be required.

**AR105.7 Instructions and signs.** An owner's manual for the fire sprinkler system shall be provided to the owner. A sign or valve tag shall be installed at the main shutoff valve to the water distribution system stating the following: "Warning, the water system for this home supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices

that restrict the flow or decrease the pressure or automatically shutoff the water to the fire sprinkler system, such as water softeners, filtration systems and automatic shutoff valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign."

**AR105.8 Inspections.** The water distribution system shall be inspected in accordance with Sections AR105.8.1 and AR105.8.2.

**AR105.8.1 Preconcealment Inspection.** The following items shall be verified prior to the concealment of any sprinkler system piping:

1. Sprinklers are installed in all areas as required by Section AR105.1.1.
2. Where sprinkler water spray patterns are obstructed by construction features, luminaires or ceiling fans, additional sprinklers are installed as required by Section AR105.2.4.2.
3. Sprinklers are the correct temperature rating and are installed at or beyond the required separation distances from heat sources as required by Sections AR105.2.1 and AR105.2.2.
4. The pipe size equals or exceeds the size used in applying Tables P2904.6.2(4) through P2904.6.2(9) or, if the piping system was hydraulically calculated in accordance with Section AR105.6.1, the size used in the hydraulic calculation.
5. The pipe length does not exceed the length permitted by Tables AR105.6.2(4) through AR105.6.2(9) or, if the piping system was hydraulically calculated in accordance with Section AR105.6.1, pipe lengths and fittings do not exceed those used in the hydraulic calculation.
6. Nonmetallic piping that conveys water to sprinklers is listed for use with fire sprinklers.
7. Piping is supported in accordance with the pipe manufacturer's and sprinkler manufacturer's installation instructions.
8. The piping system is tested in accordance with the plumbing code.

**AR105.8.2 Final inspection.** The following items shall be verified upon completion of the system:

1. Sprinklers are not painted, damaged or otherwise hindered from operation.
2. Where a pump is required to provide water to the system, the pump starts automatically upon system water demand.
3. Pressure-reducing valves, water softeners, water filters or other impairments to water flow that were not part of the original design have not been installed.

4. The sign or valve tag required by Section AR105.7 is installed and the owner's manual for the system is present.))  
The design and installation of residential fire sprinkler systems shall be in accordance with the 2012 International Residential Code Section P2904 Dwelling Unit Fire Sprinkler Systems.

**WSR 12-16-096**  
**PROPOSED RULES**  
**DEPARTMENT OF AGRICULTURE**

[Filed August 1, 2012, 8:16 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-12-081.

Title of Rule and Other Identifying Information: Chapter 16-86 WAC, Cattle and bison diseases in Washington state.

Hearing Location(s): Natural Resources Building, 1111 Washington Street S.E., First Floor, Conference Room 175, Olympia, WA 98504, on September 6, 2012, at 1:00 p.m.; and at Central Washington University, 1007 North Chestnut, Block Hall, Meeting Room 150, Ellensburg, WA 98926, on September 7, 2012, at 1:00 p.m.

Date of Intended Adoption: October 5, 2012.

Submit Written Comments to: Teresa Norman, P.O. Box 42560, Olympia, WA 98504-2560, e-mail WSDARuleComments@agr.wa.gov, fax (360) 902-2092, by 5:00 p.m., September 7, 2012.

Assistance for Persons with Disabilities: Contact WSDA receptionist by August 31, 2012, TTY (800) 833-6388 or 711.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The department proposes to amend chapter 16-86 WAC to change the official mature RB-51 Brucella vaccination dosage from 0.25cc to a full dose of the RB-51 Brucella vaccine. The department is proposing to clarify and simplify the definitions within WAC 16-86-005 and add a weight limit of a bull to the definition of "virgin bull."

The department is also proposing to add new section WAC 16-86-114 outlining the trichomoniasis requirements for bulls presented for sale at a public livestock market.

Reasons Supporting Proposal: New research is casting doubt on the effective protection provided with the 0.25cc dose of the RB-51 vaccine. Amending this chapter will provide confidence with our neighboring trading partners that Washington cattle are protected against brucellosis and movement restrictions in the event of exposure are not required.

Adding a new section outlining the trichomoniasis testing requirements at public livestock markets will help clarify when a trichomoniasis test is required.

Statutory Authority for Adoption: RCW 16.36.040 and chapter 34.05 RCW.

Statute Being Implemented: Chapter 16.36 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Washington state department of agriculture, governmental.

Name of Agency Personnel Responsible for Drafting: Jodi Jones, Olympia, (360) 902-1889; Implementation and Enforcement: Leonard E. Eldridge, DVM, Olympia, (360) 902-1881.

No small business economic impact statement has been prepared under chapter 19.85 RCW. RCW 19.85.030 (1)(a) requires that an agency prepare a small business economic impact statement (SBEIS) for proposed rules that impose a

more than minor cost on businesses in an industry. The department has analyzed the economic effects of the proposed revisions and has concluded that they are negligible costs on the regulated industry and, therefore, a formal SBEIS is not required.

A cost-benefit analysis is not required under RCW 34.05.328. The Washington state department of agriculture is not a listed agency under RCW 34.05.328 (5)(a)(i).

August 1, 2012

Leonard E. Eldridge  
State Veterinarian

AMENDATORY SECTION (Amending WSR 10-20-093, filed 9/30/10, effective 10/31/10)

**WAC 16-86-005 Definitions.** In addition to the definitions found in RCW 16.36.005, the following definitions apply to this chapter:

"Accredited veterinarian" means a veterinarian licensed to practice veterinary medicine, surgery, and dentistry in the state of Washington and approved by the United States Department of Agriculture (USDA) Veterinary Services to participate in state-federal cooperative programs.

"Adult vaccination tattoo" means a tattoo in the right ear with the letters RAV followed by the last digit of the year in which the vaccination was administered with RB-51 Brucella vaccine. An example is RAV2 for an adult vaccinated in 2012.

"Breed registry tattoo" means individual registry tattoos issued by breed associations.

"Brucellosis vaccine" means only those *Brucella abortus* products that are approved by and produced under license of the USDA for injection into cattle to enhance their resistance to brucellosis.

"Calfhood vaccination tattoo" means a tattoo in the right ear consisting of an R, the United States registered V-shield, and the last digit of the year in which the animal was vaccinated with RB-51 Brucella vaccine. An example is RV-shield2 for a calf vaccinated in 2012.

"Department" means the Washington state department of agriculture (WSDA).

"Director" means the director of WSDA or the director's authorized representative.

"Herd plan" means a written management agreement between the animal owner and the state veterinarian, with possible input from a private accredited veterinarian designated by the owner, in which each participant agrees to undertake actions specified in the herd plan to control the spread of infectious, contagious, or communicable disease within and from an infected herd and to work toward eradicating the disease in the infected herd.

"Official calfhood vaccinate" means female cattle between four and twelve months of age that are vaccinated with brucellosis vaccine at a calfhood dose (2cc subcutaneously) and officially individually identified.

"Official individual identification" means identifying an animal or group of animals using USDA-approved or WSDA-approved devices or methods (~~approved by the director~~) including, but not limited to, official tags, unique breed registry tattoos, and registered brands when accompa-

nied by a certificate of inspection from a brand inspection authority who is recognized by the director. If a radio frequency identification device is used for identification, the device must be placed in the left ear. The official tattoo must be placed in the middle third of the right ear.

"Official Washington (~~((mature))~~) adult vaccinate" means female cattle over the age of twelve months that (~~((are native to))~~) have resided in Washington state (~~((, or originate from other class free states or countries to be determined on a case-by-case investigation by the director,))~~) for ninety days or more and are vaccinated with a (~~((reduced))~~) dose of brucellosis vaccine (~~((0.25cc))~~) 2cc subcutaneously under directions issued by the director.

"Premises" means a location (~~((or physical address))~~) where livestock are kept.

"Timed events" means competitive events that take place where time elapsed is the factor that determines the placing of individuals competing in the event.

"USDA" means the United States Department of Agriculture.

~~("Vaccination tattoo" means a tattoo in the right ear bearing the United States registered shield and V preceded by a number indicating the quarter of the year and followed by a number corresponding to the last digit of the year in which the animal was vaccinated with strain 19 *Brucella* vaccine. For strain RB-51 calfhood vaccination, an R precedes the shield and V. In the case of strain RB-51 mature vaccination, an M precedes the shield and V. For strain RB-51 vaccinates, the last number of the tattoo corresponds to the last digit of the year in which vaccine was administered.)~~

"Virgin bull" means a sexually intact male bovine less than eight hundred pounds and less than twelve months of age (~~((that is)),~~) as determined by dentition inspection by an accredited veterinarian. Virgin bulls must be certified by the owner or the owner's designee with a signed statement as having had no breeding contact with female cattle.

AMENDATORY SECTION (Amending WSR 08-01-094, filed 12/17/07, effective 1/17/08)

**WAC 16-86-025 Official brucellosis vaccination.** (1)

An official vaccination report of all brucellosis vaccinations must be made to the department within thirty days of vaccination by the accredited veterinarian who performed the vaccination. The vaccination report must be made on an approved report form (USDA form number VS 4-26) issued by the department for the purpose of individually identifying the cattle and recording official brucellosis vaccinations.

(a) All vaccinations must be performed by a licensed accredited veterinarian or federal or state employed veterinarian and are not official until they are reported to the department.

(b) Veterinarians must record all vaccinations in a ledger that records the owner of the animal, (~~((tag))~~) official individual identification numbers, and the date of vaccination. These records must be maintained for seven years.

(2) Official calfhood vaccinates must be:

(a) Vaccinated with 2cc subcutaneous RB-51 *Brucella* vaccine; and

~~(b) Permanently identified ((by)) with official individual vaccination ((ear tag (orange tag)); and~~

~~(b) Vaccinated with 2cc subcutaneous RB-51 *Brucella* vaccine and permanently identified as vaccinates by a vaccination tattoo in the right ear. For strain RB-51 calfhood vaccination, the tattoo consists of an R, the United States registered V shield, and the last digit of the year of vaccination)) identification and calfhood vaccination tattoo.~~

(3) Official (~~((mature))~~) adult vaccinates (~~((over twelve months of age))~~) must not be pregnant and must have prevaccination blood samples for brucellosis submitted on USDA form number VS4-33 to the office of the state veterinarian. An official (~~((mature))~~) adult vaccinate must be:

(a) Vaccinated with (~~((0.25cc))~~) 2cc subcutaneous RB-51 *Brucella* vaccine;

~~(b) Permanently identified ((by an)) with individual official USDA identification ((silver tag) and a USDA brucellosis vaccination tag (orange tag)); and~~

~~(c) Permanently identified as a vaccinate by ((a)) an adult vaccination tattoo in the right ear. ((For strain RB-51 mature vaccination, the tattoo consists of an M, the United States registered V shield, and the last digit of the year of vaccination.))~~

NEW SECTION

**WAC 16-86-114 Trichomoniasis testing at public livestock markets.** (1) Bulls presented at a public livestock market that are less than eight hundred pounds and judged to be less than twelve months of age by the market veterinarian using dentition inspection are exempt from trichomoniasis testing.

(2) Bulls presented at a public livestock market that are less than eight hundred pounds and determined to be more than twelve months of age by the market veterinarian using dentition inspection must be tested for trichomoniasis, or be castrated prior to leaving the market, or be sent to a category 2 restricted holding facility as defined in WAC 16-30-035, or be delivered directly to a USDA-inspected slaughter facility.

**WSR 12-16-097**

**PROPOSED RULES**

**DEPARTMENT OF AGRICULTURE**

[Filed August 1, 2012, 8:17 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-12-082.

Title of Rule and Other Identifying Information: Chapter 16-610 WAC, Livestock brand inspection.

Hearing Location(s): Natural Resources Building, 1111 Washington Street S.E., First Floor, Conference Room 175, Olympia, WA 98504, on September 6, 2012, at 1:00 p.m.; and at Central Washington University, 1007 North Chestnut, Block Hall, Meeting Room 150, Ellensburg, WA 98926, on September 7, 2012, at 1:00 p.m.

Date of Intended Adoption: October 5, 2012.

Submit Written Comments to: Teresa Norman, P.O. Box 42560, Olympia, WA 98504-2560, e-mail WSDARules

Comments@agr.wa.gov, fax (360) 902-2092, by 5:00 p.m., September 7, 2012.

Assistance for Persons with Disabilities: Contact WSDA receptionist by August 31, 2012, TTY (800) 833-6388 or 711.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The department proposes to amend chapter 16-610 WAC to align with SHB 1538 that was signed by the governor in 2011 supporting animal disease traceability. Proposed changes include:

- Modifying the livestock inspection exemption for private sales of unbranded, female, dairy breed cattle involving fifteen head or less. This modification would limit the inspection exemption to only producers with a valid WSDA milk producers license;
- Requiring milk producers to develop, implement, and financially support an electronic transaction reporting system within eighteen months of the rule making effective date;
- Requiring a certificate of permit and bill of sale to accompany any cattle presented for an inspection that are in the possession of the buyer;
- Exempting unbranded dairy breed bull calves or free martins from inspection requirements when criteria are met; and
- Reinstating livestock inspection fees for dairy calves delivered to a USDA inspected slaughter facility.

Reasons Supporting Proposal: Animal disease traceability is a vital tool used to protect public health, safety, and welfare and to maintain the economic vitality of our livestock industries. Washington's number one source for in-state traceability is through livestock inspections at change of ownership or movement out-of-state.

Statutory Authority for Adoption: RCW 16.57.350 and chapter 34.05 RCW.

Statute Being Implemented: Chapter 16.57 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Washington state department of agriculture, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Lynn Briscoe, Olympia, (360) 902-1987; and Enforcement: Leonard E. Eldridge, DVM, Olympia, (360) 902-1881.

No small business economic impact statement has been prepared under chapter 19.85 RCW. RCW 19.85.030 (1)(a) requires that an agency prepare a small business economic impact statement (SBEIS) for proposed rules that impose a more than minor cost on businesses in an industry. The department has analyzed the economic effects of the proposed revisions and has concluded that they are negligible costs on the regulated industry and, therefore, a formal SBEIS is not required.

A cost-benefit analysis is not required under RCW 34.05.328. The Washington state department of agriculture is not a listed agency under RCW 34.05.328 (5)(a)(i).

August 1, 2012

Leonard E. Eldridge  
State Veterinarian

AMENDATORY SECTION (Amending WSR 10-21-016, filed 10/7/10, effective 11/7/10)

**WAC 16-610-020 Cattle inspections for brands or other proof of ownership.** (1) All cattle must be inspected for brands or other proof of ownership:

(a) Before being moved out of Washington state, unless the provisions of WAC 16-610-035(2) apply.

(b) When offered for sale at any public livestock market or special sale approved by the director.

(c) Upon delivery to any cattle processing plant where the United States Department of Agriculture maintains a meat inspection program, unless the cattle:

(i) Originate from a certified feedlot; or

(ii) Are accompanied by an inspection certificate issued by the director, or a veterinarian certified by the director, or an agency in another state or Canadian province authorized by law to issue such a certificate.

(2) All cattle entering or reentering any certified feedlot licensed under chapter 16.58 RCW must be inspected for brands or other proof of ownership before commingling with other cattle unless the cattle are accompanied by an inspection certificate issued by the director, or a veterinarian certified by the director, or an agency in another state or Canadian province authorized by law to issue such a certificate.

(3) All cattle must be inspected for brands or other proof of ownership at any point of private sale, trade, gifting, barter, or any other action that constitutes a change of ownership (~~(, except for)~~).

(a) Subject to the requirements of this subsection, individual private sales of unbranded female dairy breed cattle involving fifteen head or less where the buyer and seller are milk producers holding a current milk producer's license under chapter 15.36 RCW and cattle are not being moved or transported out of Washington state are exempt from this inspection requirement. Milk producers holding a current milk producer's license under chapter 15.36 RCW must develop, implement, and financially support an electronic transaction reporting system compatible with department resources within eighteen months of the effective date of this section that will facilitate traceability and payment of all required assessments or fees for dairy cattle exempted under this section from mandatory livestock inspections. The system must include third-party verification by department personnel for transactions that are reported electronically. When the electronic transaction reporting system is implemented, milk producers holding a current milk producer's license under chapter 15.36 RCW conducting individual private sales of unbranded female dairy breed cattle involving fifteen head or less are required to either utilize the electronic transaction reporting system or obtain a mandatory livestock inspection. Should the director determine that full deployment of the electronic transaction reporting system has not occurred within the eighteen months of the effective date of this section, individual private sales of unbranded female dairy breed cattle involving fifteen head or less are no longer exempt and mandatory livestock inspections must occur.

(b) For transactions involving cattle not being moved or transported out of Washington state:

~~((a))~~ (i) Cattle must be presented for an inspection within fifteen days from the date of the initial transaction and

accompanied by a certificate of permit and bill of sale listing any brand or official identification as applicable. It shall be the responsibility of the seller to notify the department immediately that a sale has occurred. It shall be the responsibility of the buyer to present the animals for inspection.

~~((b))~~ (i) Cattle sold for 4-H and FFA youth projects are exempt from the fifteen day inspection requirement and can be inspected, if not prior, when consigned to a terminal show.

(4) Transactions involving unbranded dairy breed bull calves or free martins (infertile female calves) not being moved or transported out of Washington state are exempt from inspection requirements in subsection (3) of this section only when:

(a) The animal is under thirty days old and has not been previously bought or sold;

(b) The seller holds a valid milk producer's license under chapter 15.36 RCW;

(c) The sale does not take place at or through a public livestock market or special sale authorized by chapter 16.65 RCW; and

(d) Each animal is officially identified as provided in WAC 16-29-025. A certificate of permit and a bill of sale listing each animal's individual official identification must accompany the animal to the buyer's location. These documents do not constitute proof of ownership under WAC 16-610-018.

(5) Exemptions from mandatory inspections do not exempt cattle owners or sellers from paying beef promotion fees owed to the Washington state beef commission under chapter 16.67 RCW or the animal disease traceability fee owed to the department under chapter 16.36 RCW.

AMENDATORY SECTION (Amending WSR 10-21-016, filed 10/7/10, effective 11/7/10)

**WAC 16-610-065 Livestock identification fees.** All livestock identification inspection fees charged by the director are specified in statute under RCW 16.57.220 but are reproduced in this section for ease of reference.

For purposes of this section, the time and mileage fee means seventeen dollars per hour and the current mileage rate set by the office of financial management.

Certificate	Fees:
Inspection Certificate - Cattle	<p>(1) The livestock inspection fee for cattle is <b>\$1.60</b> per head or the time and mileage fee, whichever is greater, except: The fee for livestock inspection for cattle is <b>\$1.10</b> per head or the time and mileage fee, whichever is greater, when cattle are identified with a valid brand recorded to the owner of the cattle in Washington. The time and mileage fee may be waived for private treaty transactions of ten head or less of cattle bearing the seller's Washington recorded brand and special sales of 4-H, FFA, and junior/youth groups. The time and milage waiver: (a) Will be limited to twelve waivers within a calendar year; and (b) Does not apply to multiple sales to the same buyer within a thirty-day period.</p> <p>(2) The livestock inspection fee for cattle is <b>\$4.00</b> per head for cattle delivered to a USDA inspected slaughter facility with a daily capacity of no more than five hundred head of cattle.</p> <p>(3) No inspection fee is charged for a calf that is inspected prior to moving out-of-state under an official temporary grazing permit if the calf is part of a cow-calf unit and the calf is identified with the owner's Washington state-recorded brand.</p> <p><del>((4) No inspection fee is charged for a dairy calf less than thirty days old that is delivered to a USDA inspected slaughter facility.)</del></p>
Inspection Certificate - Horse	<p><del>((5))</del> <u>(4)</u> The livestock inspection fee for horses is <b>\$3.50</b> per head or the time and mileage rate, whichever is greater, except:</p>
Inspection Certificate - Groups of thirty or more horses	<p><del>((6))</del> <u>(5)</u> The livestock inspection fee for groups of thirty or more horses is <b>\$2.00</b> per head or the time and mileage fee, whichever is greater, if: (a) The horses are owned by one individual; and (b) The inspection is performed on one date and at one location; and (c) Only one certificate is issued.</p>
Inspection Certificate - Minimum fee	<p><del>((7))</del> <u>(6)</u> The minimum fee for a livestock inspection is <b>\$5.00</b>. The minimum fee does not apply to livestock consigned to and inspected at a public livestock market, special sale, or a cattle processing plant.</p>
Annual individual identification certificate for individual animals	<p><del>((8))</del> <u>(7)</u>(a) The livestock inspection fee for an annual individual identification certificate for cattle and horses is <b>\$20.00</b> per head or the time and mileage fee, whichever is greater.</p>

Certificate	Fees:
	(b) The livestock inspection fee for an annual individual identification certificate for groups of thirty or more horses or cattle is <b>\$5.00</b> per head or the time and mileage fee, whichever is greater, if: (i) The horses or cattle are owned by one individual; (ii) The inspection is performed on one date and at one location; and (iii) Only one certificate is issued.
Lifetime individual identification certificate	<del>((9))</del> (8) A livestock inspection fee for a lifetime individual identification certificate for horses and cattle is <b>\$60.00</b> per head or the time and mileage fee, whichever is greater.

**WSR 12-16-099**  
**PROPOSED RULES**  
**DEPARTMENT OF AGRICULTURE**

[Filed August 1, 2012, 8:20 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 11-16-018.

Title of Rule and Other Identifying Information: Chapter 16-29 WAC, Animal disease traceability.

Hearing Location(s): Natural Resources Building, 1111 Washington Street S.E., First Floor, Conference Room 175, Olympia, WA 98504, on September 6, 2012, at 1:00 p.m.; and at Central Washington University, 1007 North Chestnut, Block Hall, Meeting Room 150, Ellensburg, WA 98926, on September 7, 2012, at 1:00 p.m.

Date of Intended Adoption: October 5, 2012.

Submit Written Comments to: Teresa Norman, P.O. Box 42560, Olympia, WA 98504-2560, e-mail WSDARulesComments@agr.wa.gov, fax (360) 902-2092, by 5:00 p.m., September 7, 2012.

Assistance for Persons with Disabilities: Contact WSDA receptionist by August 31, 2012, TTY (800) 833-6388 or 711.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The department proposes to add new chapter 16-29 WAC, Animal disease traceability. The 2011 legislative session passed SHB 1538 which directed the department to adopt by rule a fee per head on cattle sold or slaughtered in the state or transported out of the state to administer animal disease traceability activities for cattle. The proposed new WAC will establish a forty cent per head fee on cattle sold or slaughtered in the state or transported out-of-state, establish a process to assess and collect the fee, establish exemptions and establish a penalty matrix for failing to pay the fee.

Reasons Supporting Proposal: If Washington state is unable to trace cattle, the United States Department of Agriculture has the authority to put movement restrictions on the entire state. This new WAC is necessary for the department to trace cattle that may be infected or have been exposed to infectious and communicable diseases. In order for the department to trace cattle, the department must obtain health and movement information to determine where cattle originated from, where the cattle moved to, and what cattle were exposed.

Statutory Authority for Adoption: RCW 16.36.150 and chapter 34.05 RCW.

Statute Being Implemented: Chapter 16.36 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Washington state department of agriculture (WSDA), governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: David Hecimovich, Olympia, (360) 725-5493; and Enforcement: Leonard E. Eldridge, DVM, Olympia, (360) 902-1881.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

Small Business Economic Impact Statement

**SUMMARY OF PROPOSED RULES:** During the 2011 legislative session, the cattle industry approached the legislature for WSDA to adopt rules that will prevent the introduction or spreading of infectious livestock diseases into the state. One component of this request is the ability to carry out animal disease traceability activities for cattle funded through fees. The legislation was passed (SHB 1538) and a new section was added to chapter 16.36 RCW allowing the director to administer animal disease traceability activities for cattle by adopting by rule a fee per head on cattle sold or slaughtered in the state, or transported out of the state. The fee would not exceed forty cents per head of cattle.

WSDA is proposing to establish chapter 16-29 WAC, Animal disease traceability within Title 16 WAC, Department of agriculture. The purpose of this chapter is to establish animal disease traceability activities for cattle.

**SMALL BUSINESS ECONOMIC IMPACT STATEMENT:** Chapter 19.85 RCW, the Regulatory Fairness Act, requires an analysis of the economic impact proposed rules will have on regulated small businesses. Preparation of a small business economic impact statement is required when proposed rules will impose more than minor costs for compliance or have the potential of placing an economic impact on small businesses that is disproportionate to the impact on large businesses. "Minor cost" means a cost that is less than three-tenths of one percent of annual revenue or income, or one hundred dollars, whichever is greater, or one percent of annual payroll. "Small business" means any business entity that is owned and operated independently from all other businesses and has fifty or fewer employees.

**INDUSTRY ANALYSIS:** The animal disease traceability program will be responsible for administering animal disease tracebacks for livestock within the state of Washington. The program has determined it regulates 6,420 existing businesses that fall under the North American Industry Classification System codes corresponding to the regulated industry: 31161, Animal Slaughtering (except poultry); 112120, Dairy Cattle and Milk Production; 112111, Beef Cattle Ranching & Farming; and 112112, Cattle Feedlots.

**INVOLVEMENT OF SMALL BUSINESSES:** A small business economic impact assessment survey was mailed to 6,420 producers and businesses (6,063 registered brand holders and 357 businesses associated with cattle who were not registered brand holders) to analyze the economic impact of proposed rules on small businesses.

WSDA analyzed how the fee per head to administer animal disease traceability activities for cattle would be collected on cattle at change of ownership, transported out of the state, or slaughtered in the state.

**COST OF COMPLIANCE:** RCW 19.85.040 directs agencies to analyze the costs of compliance for businesses required to comply with the proposed rule, including costs of equipment, supplies, labor, professional services, and increased administrative costs. Agencies must also consider whether compliance with the rule will result in loss of sales or revenue. RCW 19.85.040 directs agencies to determine whether the proposed rule will have a disproportionate cost impact on small businesses by comparing the cost of compliance for small business with the cost of compliance for the ten percent of the largest businesses required to comply with

the proposed rules. Agencies are to use one or more of the following as a basis for comparing costs:

- Cost per employee;
- Cost per hour of labor; or
- Cost per one hundred dollars of sales.

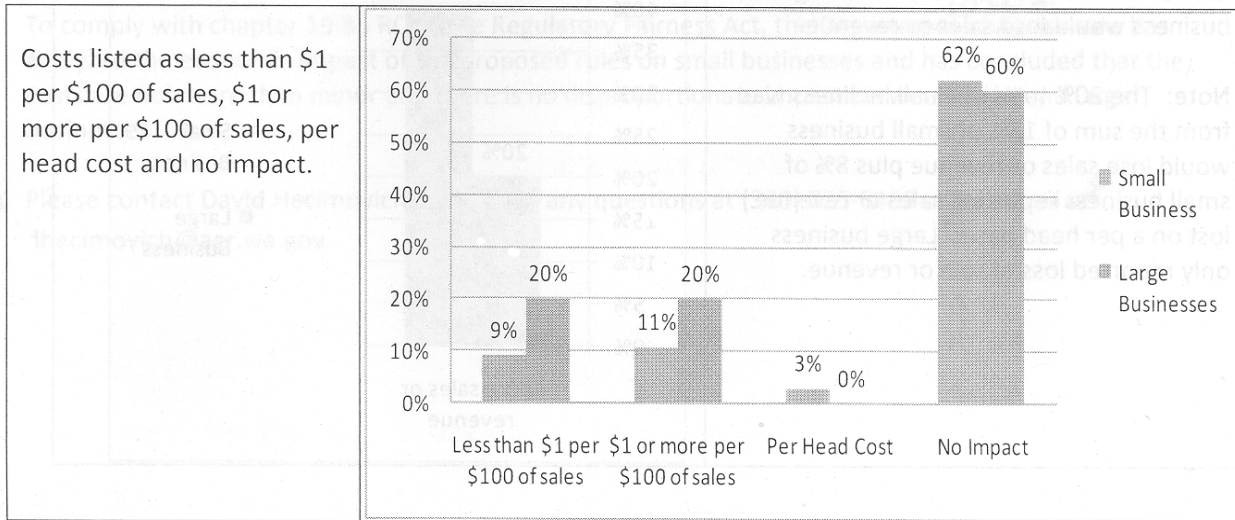
The program has opted to look at cost per one hundred dollars of sales as a basis for comparing costs.

*Analysis of Cost of Compliance:* The program has analyzed the cost of compliance anticipated by regulated small businesses. Four hundred eight small businesses and five large businesses returned the small business economic impact survey. Thirty-seven percent of small businesses and sixty percent of the large businesses surveyed indicated fees would have an impact.

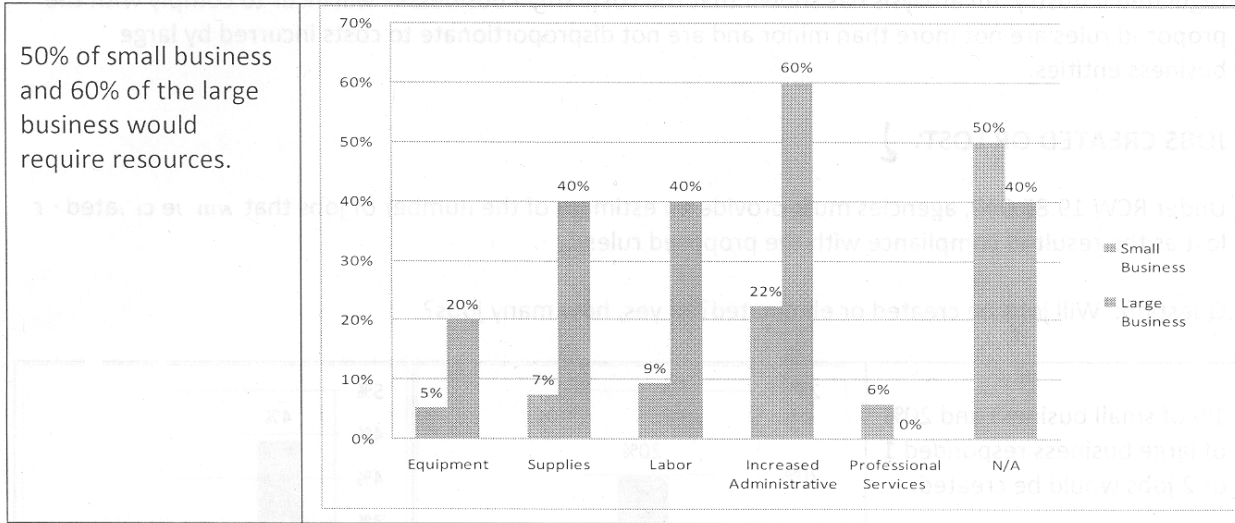
The following questions were asked and then charted to business that may have an impact from SHB 1538:

- Will the business incur costs to comply? If yes, cost per \$100 of sales?
- What kinds of resources will the business likely need i.e., equipment, supplies, labor increased administrative costs or professional services?
- Will the business lose sales or revenue? If yes, how much revenue will be lost?
- Will jobs be created or eliminated? If yes, how many jobs?

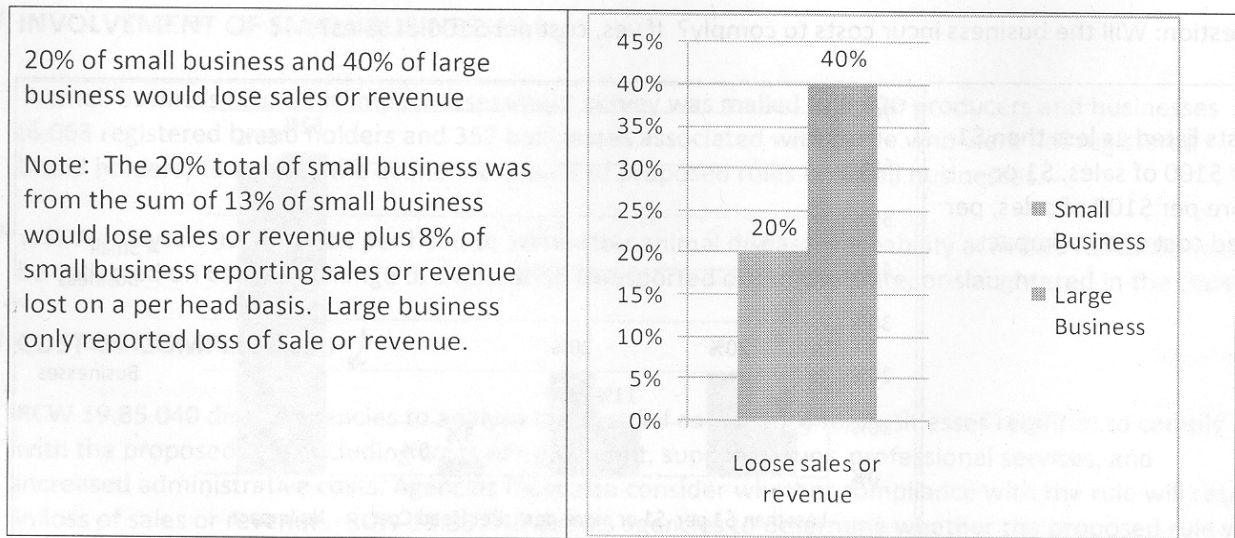
Question: Will the business incur costs to comply? If yes, cost per \$100 of sales?



Question: What kinds of resources will the business likely need i.e., equipment, supplies, labor increased administrative costs or professional services?



Question: Will the business lose sales or revenue? If yes, how much revenue will be lost?

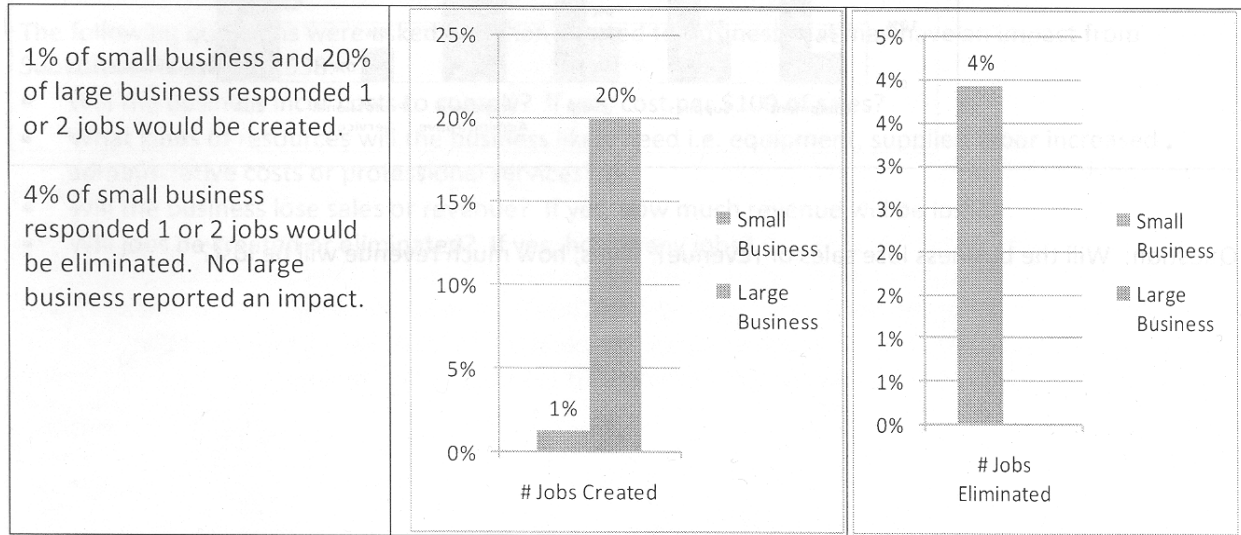


*Analysis of Disproportionate Economic Impact:* When costs associated with proposed rules are more than minor, the Regulatory Fairness Act requires a comparison of the costs to small businesses with those of ten percent of the largest businesses in the regulated industry. An analysis has shown that the costs small businesses will incur to comply with the proposed rules are not more than minor and are not disproportionate to costs incurred by large business entities.

**JOBS CREATED OR LOST:** Under RCW 19.85.040, agencies must provide an estimate of the number of jobs that will be created or lost as the result of compliance with the proposed rules.

Question: Will jobs be created or eliminated? If yes, how many jobs?





**CONCLUSION:** To comply with chapter 19.85 RCW, the Regulatory Fairness Act, the WSDA has analyzed the economic impact of the proposed rules on small businesses and has concluded that the costs are not more than minor and there is no disproportionate impact between small and large businesses.

Please contact David Hecimovich if you have any questions at (360) 725-5493 or by e-mail [dhecimovich@agr.wa.gov](mailto:dhecimovich@agr.wa.gov).

A copy of the statement may be obtained by contacting David Hecimovich, WSDA, P.O. Box 42560, Olympia, WA 98504-2560, phone (360) 725-5493, fax (360) 902-2087, e-mail [dhecimovich@agr.wa.gov](mailto:dhecimovich@agr.wa.gov).

A cost-benefit analysis is not required under RCW 34.05.328. WSDA is not a listed agency in RCW 34.05.328 (5)(a)(i).

August 1, 2012  
Leonard E. Eldridge  
State Veterinarian

**Chapter 16-29 WAC**

**ANIMAL DISEASE TRACEABILITY**

NEW SECTION

**WAC 16-29-005 Purpose.** The purpose of this chapter is to administer animal disease traceability activities by assessing a per head fee on cattle sold or slaughtered in the state or transported out of the state except where specifically exempted in this chapter.

NEW SECTION

**WAC 16-29-010 Definitions.** In addition to the definitions found in RCW 16.36.005 and 16.57.010, the following definition applies to this chapter:

"Entry permit" means prior written permission issued by the director to admit or import animals or animal reproductive products into Washington state.

NEW SECTION

**WAC 16-29-020 Levy and collection of assessment.**

(1) An assessment of forty cents per head is levied on all cattle sold or slaughtered in the state or transported out of the state.

(a) Cattle moving interstate for grazing purposes per WAC 16-86-017 may be eligible for an assessment refund. To qualify for a refund, owners shall provide proof within forty-five days of return that the cattle returned to the physical address listed on the grazing permit.

(b) Female dairy cattle moving interstate for feeding purposes may be eligible for an assessment refund. To qualify for a refund, owners shall provide proof within forty-five days of return that the cattle returned to the location of origin listed on the export certificate of veterinary inspection.

(2) Assessments are collected by the department when a livestock inspection is conducted and collected in the same manner as the livestock inspection fees.

(3) All other assessments shall be paid to the department by the fifteenth day of the month following the month in which the sale, slaughter, or transportation out-of-state occurred by:

(a) The seller, in the case of cattle not receiving a livestock inspection per chapter 16.57 RCW; or

(b) The meat processor, when cattle are slaughtered for purposes other than custom slaughtering where no change of ownership occurred. Assessments that are remitted to the department by the meat processor for cattle that are imported from out-of-state shall reference the entry permit number and enclose a copy of a livestock inspection certificate if applicable. Assessments that are remitted to the department by the meat processor for in state cattle shall enclose a copy of the certificate of permit (haul slip) and reference the livestock inspection certificate number if applicable.

NEW SECTION

**WAC 16-29-030 Identification for bull calves and free martins prior to sale.** Upon request by a milk producer licensed under chapter 15.36 RCW, the department will issue a tag to be placed by the producer prior to the first point of sale on bull calves and free martins (infertile female calves) under thirty days of age. The fee for each tag will be the cost to the department for manufacture and purchase of the tag plus the applicable beef commission assessment plus the fee charged in WAC 16-29-020. The tag may be referred to as a "green tag."

NEW SECTION

**WAC 16-29-040 Penalty outline and schedule.** (1) If any person fails to comply with the requirements of RCW 16.36.150 and WAC 16-29-020, the director may issue that person a notice of infraction and may assess a penalty.

(2) The following is the base penalty, not including statutory assessments.

<b>Violation</b>	<b>Base Penalty</b>
RCW 16.36.150	Failing to pay the traceability fee
First offense	\$50.00
Second offense within ten years	\$125.00
Third and subsequent offenses within ten years	\$250.00

**WSR 12-16-101**  
**PROPOSED RULES**  
**DEPARTMENT OF**  
**SOCIAL AND HEALTH SERVICES**  
 (Aging and Disability Services Administration)

[Filed August 1, 2012, 9:43 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-12-076.

Title of Rule and Other Identifying Information: The department is proposing the amendment of existing sections and adoption of new sections in chapter 388-825 WAC to provide information regarding restricted ages for services at residential habilitation centers and additional services in the community. Division of developmental disabilities (DDD) is proposing the amendment of twelve sections in chapter 388-825 WAC. They are WAC 388-825-020 Definitions, 388-825-061 What service am I eligible for if I am under the age of three?, 388-825-068 What medicaid state plan services can DDD authorize?, 388-825-069 What services are provided under a home and community based services (HCBS) waiver?, 388-825-0871 Does DDD provide out-of-home residential services that address the special needs of persons with developmental disabilities?, 388-825-088 Where can I find more information about DDD contracted residential services?, 388-825-089 What is a residential habilitation center

(RHC)?, 388-825-091 Am I eligible for residential habilitation center (RHC) services?, 388-825-093 Can I receive a short term stay at a residential habilitation center (RHC)?, 388-825-094 Can I request to live in an RHC?, 388-825-096 Will I have to pay for the services DDD authorizes for me?, and 388-825-120 When can I appeal department decisions through an administrative hearing process?

DDD is proposing the adoption of three new sections in chapter 388-825 WAC. They are WAC 388-825-201 What is the purpose of enhanced respite services?, 388-825-206 Who is eligible to receive enhanced respite services?, and 388-825-211 How long am I eligible to receive enhance[d] respite services?

Hearing Location(s): Office Building 2, Lookout Room, DSHS Headquarters, 1115 Washington, Olympia, WA 98504 (public parking at 11th and Jefferson. A map is available at <http://www1.dshs.wa.gov/msa/rpau/RPAU-OB-2directions.html>), on September 4, 2012, at 10:00 a.m

Date of Intended Adoption: Not earlier than September 5, 2012.

Submit Written Comments to: DSHS Rules Coordinator, P.O. Box 45850, Olympia, WA 98504, e-mail DSHS RPAURulesCoordinator@dshs.wa.gov, fax (360) 664-6185, by 5 p.m. on September 4, 2012.

Assistance for Persons with Disabilities: Contact Jennisha Johnson, DSHS rules consultant, by August 21, 2012, TTY (360) 664-6178 or (360) 664-6094 or by e-mail at jennisha.johnson@dshs.wa.gov.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The purpose of these proposed changes is to identify how the department is implementing 2SSB 5459 and further amended state law chapter 71A.20 RCW directing that no person under the age of sixteen years may be admitted to receive services at a residential habilitation center. In addition, that no person under the age of twenty-one years may be admitted to receive services at a residential center, unless there are no service options available in the community to appropriately meet the needs of the individual. Such admission is limited to the provision of short-term respite or crisis stabilization services.

In addition, proposed new sections include how the department will provide a consistent, statewide process for determining what individuals may receive enhanced respite services in the community and how long they may receive those services.

Additional changes will be made to all references of "mental retardation" to "intellectual disability." This change to respectful language was signed by the governor in HB 2490 and is incorporated within RCW 44.04.280 State laws—Respectful language. President Barack Obama also signed Rosa's Law, which directed that all references in federal law to "mental retardation" be changed to "intellectual disability." Similarly, the law stated that references to "a mentally retarded individual" be changed to "an individual with an intellectual disability."

Reasons Supporting Proposal: See Purpose above.

Statutory Authority for Adoption: RCW 71A.12.030 General authority of secretary—Rule adoption.

Statute Being Implemented: Chapter 94, Laws of 2010, and chapter 30, Laws of 2011; RCW 44.04.280.

Rule is necessary because of federal law, Public Law 111 - 256 2010; 111th Congress (S. 2781 Rosa's Law).

Name of Proponent: Department of social and health services, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Nichole Jensen, P.O. Box 45310, Olympia, WA 98504-5310, (360) 725-3403; and Enforcement: Mark Eliason, P.O. Box 45310, Olympia, WA 98504-5310, (360) 725-3452.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The preparation of a small business impact statement is not required as no new costs will be imposed on small businesses or nonprofits as a result of this rule amendment.

A cost-benefit analysis is not required under RCW 34.05.328. Rules are exempt per RCW 34.05.328 (5)(b)(v), rules the content of which is explicitly and specifically dictated by statute.

July 30, 2012  
Katherine I. Vasquez  
Rules Coordinator

AMENDATORY SECTION (Amending WSR 10-02-101, filed 1/6/10, effective 2/6/10)

**WAC 388-825-020 Definitions. "Authorization"** means DDD approval of funding for a service as identified in the individual support plan or evidence of payment for a service.

**"Client or person"** means a person who has a developmental disability as defined in RCW 71A.10.020(3) who also has been determined eligible to receive services by the division under chapter 71A.16 RCW.

**"Department"** means the department of social and health services of the state of Washington.

**"Director"** means the director of the division of developmental disabilities.

**"Division or DDD"** means the division of developmental disabilities within the aging and disability services administration of the department of social and health services.

**"Enhanced respite services"** means respite care for DDD enrolled children and youth, who meet specific criteria, in a DDD contracted and licensed staffed residential setting.

**"Family"** means relatives who live in the same home with the eligible client. Relatives include spouse or registered domestic partner; natural, adoptive or step parent; grandparent; child; stepchild; sibling; stepsibling; uncle; aunt; first cousin; niece; or nephew.

**"((ICF/MR)) ICF/ID"** means a facility certified as an intermediate care facility for ~~((the mentally retarded))~~ intellectually disabled by Title XIX to provide diagnosis, treatment and rehabilitation services to the ((mentally retarded)) individuals with intellectual disabilities or ((persons)) individuals with related conditions.

**"((ICF/MR)) ICF/ID eligible"** for admission to an ~~((ICF/MR))~~ ICF/ID means a person is determined by DDD as needing active treatment as defined in C.F.R. 483.440. Active treatment requires:

(1) Twenty-four hour supervision; and

(2) Continuous training and physical assistance in order to function on a daily basis due to deficits in the following areas: Toilet training, personal hygiene, dental hygiene, self-feeding, bathing, dressing, grooming, and communication.

**"Individual support plan (ISP)"** is a document that authorizes and identifies the DDD paid services to meet a client's assessed needs.

**"Medicaid personal care"** is the provision of medically necessary personal care tasks as defined in chapter 388-106 WAC.

**"Residential habilitation center" or "RHC"** means a state-operated facility certified to provide ~~((ICF/MR))~~ ICF/ID and/or nursing facility level of care for persons with developmental disabilities.

**"Residential programs"** means provision of support for persons in community living situations. Residential programs include DDD certified community residential services and support, both facility-based such as licensed group homes, and nonfacility based, such as supported living and state-operated living alternatives (SOLA). Other residential programs include alternative living (as described in chapter 388-829A WAC, companion homes (as described in chapter 388-829C WAC), adult family homes, adult residential care services, children's foster homes, group care and staffed residential homes.

**"Respite care"** means short-term intermittent care for DDD clients in order to provide relief for persons who normally ((providing)) provide that care ((for the individuals)).

**"Secretary"** means the secretary of the department of social and health services or the secretary's designee.

**"State supplementary payment (SSP)"** is the state paid cash assistance program for certain DDD eligible SSI clients.

AMENDATORY SECTION (Amending WSR 08-11-072, filed 5/19/08, effective 6/19/08)

**WAC 388-825-061 What service am I eligible for if I am under the age of three?** (1) Children under age three ~~((are))~~ may be eligible for the infant toddler early intervention program (ITEIP) under the Individuals with Disabilities Education Act, (IDEA), Part C, and Washington's federally approved plan. Infant toddler early intervention program (ITEIP) is a statewide, multi-agency program, administered by and located with the department of early learning, to coordinate a system of early intervention services for children, birth to three, and their families under the Individuals with Disabilities Education Act (IDEA), Part C/ITEIP state rules and regulations.

(2) Infants and toddlers eligible for DDD may receive DDD state-only funded child development services if funding is available.

AMENDATORY SECTION (Amending WSR 10-04-002, filed 1/21/10, effective 2/21/10)

**WAC 388-825-068 What medicaid state plan services can DDD authorize?** DDD may authorize the following medicaid state plan services:

(1) Medicaid personal care, per chapter 388-106 WAC;

(2) Private duty nursing for adults age eighteen and older; per chapter 388-106 WAC;

(3) Private duty nursing for children under the age of eighteen, per WAC ((388-551-3000)) 182-551-3000;

(4) Adult day health for adults, per chapter 388-106 WAC; and

(5) ((ICF/MR)) ICF/ID services, per chapters 388-835 and 388-837 WAC.

AMENDATORY SECTION (Amending WSR 08-11-072, filed 5/19/08, effective 6/19/08)

**WAC 388-825-069 What services are provided under a home and community based services (HCBS) waiver?**

(1) Home and community based services (HCBS) waivers provide specific services approved by the federal centers for medicare and medicaid services (CMS) under section 1915(c) of the Social Security Act as an alternative to placement in an intermediate care facility for ((the mentally retarded (ICF/MR))) individuals with intellectual disabilities (ICF/ID).

(2) Certain federal regulations governing ((ICF/MRs)) ICF/IDs are "waived" enabling the provision of services in the home and community to persons who would otherwise require the services provided in an ((ICF/MR)) ICF/ID as defined in chapters 388-835 and 388-837 WAC.

AMENDATORY SECTION (Amending WSR 08-11-072, filed 5/19/08, effective 6/19/08)

**WAC 388-825-0871 Does DDD provide out-of-home residential services that address the special needs of persons with developmental disabilities?** DDD provides the following out-of-home residential services that address the special needs of adults and children with developmental disabilities:

(1) Contracted and DDD-certified community based residential services for adults;

(2) Contracted community based services for children; and

(3) Residential habilitation centers (RHC) for a person ((of any age)) who requires ((ICF/MR)) ICF/ID or nursing facility care.

(a) On a short-term basis for those ages sixteen through twenty; or

(b) On a short or long-term basis if age twenty-one or older.

AMENDATORY SECTION (Amending WSR 08-11-072, filed 5/19/08, effective 6/19/08)

**WAC 388-825-088 Where can I find more information about DDD contracted residential services?** The information about DDD contracted residential services is in the following rules:

(1) Certified community residential services and supports are contained in chapter 388-101 WAC and include information regarding:

(a) Group homes (GH);

(b) Group training home;

(c) Supported living (SL); and

(d) State operated living alternative (SOLA).

(2) Alternative living services are contained in chapter 388-829A WAC;

(3) Companion home services are contained in chapter 388-829C WAC;

(4) Voluntary placement program services for children are contained in chapter 388-826 WAC and include information regarding:

(a) Foster homes;

(b) Group homes;

(c) ((Group training homes;

~~(d))~~ Child placing agencies; and

~~((e))~~ (d) Staffed residential homes.

AMENDATORY SECTION (Amending WSR 10-02-101, filed 1/6/10, effective 2/6/10)

**WAC 388-825-089 What is a residential habilitation center (RHC)?** A residential habilitation center or RHC is a state-operated facility certified to provide ((ICF/MR)) ICF/ID services (see chapter 388-837 WAC) and/or nursing facility services (chapter 388-97 WAC) for persons who are eligible clients of DDD. RHCs include:

(1) Rainier School in Buckley, Washington;

(2) ((Francis Hadden Morgan Center in Bremerton, Washington;

~~(3))~~ Fircrest School in Shoreline, Washington;

~~((4))~~ (3) Yakima Valley School in Selah, Washington;

and

~~((5))~~ (4) Lakeland Village in Medical Lake, Washington.

AMENDATORY SECTION (Amending WSR 08-11-072, filed 5/19/08, effective 6/19/08)

**WAC 388-825-091 Am I eligible for residential habilitation center (RHC) services?** You are eligible to receive residential habilitation center (RHC) services if:

(1) You are currently DDD eligible;

(2) You choose to receive services in the RHC;

(3) You need the level of care provided at the RHC; ~~((and))~~

(4) DDD has determined that you can be supported safely in an RHC environment and will not pose a danger to other residents of the RHC; and

(5) You are sixteen years old or older.

AMENDATORY SECTION (Amending WSR 08-11-072, filed 5/19/08, effective 6/19/08)

**WAC 388-825-093 Can I receive a short term stay at a residential habilitation center (RHC)?** If there is capacity at a residential habilitation center (RHC), the vacancies may be available for short term stays.

(1) Short term stays are limited by available vacancies;

(2) Short term stays must be included in your individual support plan; ~~((and))~~

(3) Short term stays in excess of thirty days in a calendar year require approval by the director of the division of developmental disabilities; and

(4) You are sixteen years old or older.

(a) If you are sixteen through twenty years of age your stay will only be for short-term respite or crisis stabilization purposes.

AMENDATORY SECTION (Amending WSR 08-11-072, filed 5/19/08, effective 6/19/08)

**WAC 388-825-094 Can I request to live in an RHC?** You may request admission to an RHC at any time. RHC admissions are not considered permanent.

(1) Your case/resource manager will update your DDD assessment and gather other information.

(2) Admission to an RHC requires approval by the director of the division of developmental disabilities or designee.

(3) You must be twenty-one years old or older.

AMENDATORY SECTION (Amending WSR 08-11-072, filed 5/19/08, effective 6/19/08)

**WAC 388-825-096 Will I have to pay for the services DDD authorizes for me?** (1) If you live in your own home, you do not pay toward the cost of your services except chore services. You must pay toward the cost of chore services as described in WAC 388-106-0625.

(2) If DDD authorizes you to live in a licensed community residential facility you must pay your room and board costs from your earned and unearned income. You may also be responsible for a portion of the cost of your care.

(a) If you are eligible for and receiving SSI or have SSI related eligibility per WAC 388-475-0100 (2)(a) or (b), you are not required to pay toward the cost of your care if you are living at home or in a community setting.

(b) If you are enrolled in a DDD HCBS waiver you must pay toward the cost of your services as described in WAC 388-515-1510.

(c) If you are not enrolled in a DDD HCBS waiver you must pay toward the cost of your services as described in WAC 388-106-0225.

(3) If you live in a medical institution you must pay toward the cost of your care as described in WAC 388-513-1380. See WAC ((388-500-0005)) 182-500-0005 for the definition of a medical institution.

AMENDATORY SECTION (Amending WSR 10-02-101, filed 1/6/10, effective 2/6/10)

**WAC 388-825-120 When can I appeal department decisions through an administrative hearing process?** (1) Administrative hearings are governed by the Administrative Procedure Act (chapter 34.05 RCW), RCW 71A.10.050, the rules in this chapter and by chapter 388-02 WAC. If any provision in this chapter conflicts with chapter 388-02 WAC or WAC 388-440-0001(3), the provision in this chapter shall prevail.

(2) A client, former client, or applicant acting on the applicant's own behalf or through an authorized representative has the right to an administrative hearing.

(3) You have the right to an administrative hearing to dispute the following department actions:

(a) Authorization, denial, reduction, or termination of services;

(b) Reduction or termination of a service that was initially approved through an exception to rule;

(c) Authorization, denial, or termination of eligibility;

(d) Authorization, denial, reduction, or termination of payment of SSP authorized by DDD set forth in chapter 388-827 WAC;

(e) Admission or readmission to, or discharge from, a residential habilitation center set forth in WAC 388-825-155;

(f) Refusal to abide by your request not to send notices to any other person;

(g) Refusal to comply with your request to consult only with you;

(h) A decision to move you to a different type of residential service;

(i) Denial or termination of the provider of your choice or the denial of payment for any reason listed in WAC 388-825-375 through 388-825-390;

(j) An unreasonable delay to act on an application for eligibility or service;

(k) A claim the client, former client, or applicant owes an overpayment debt.

(4) If you are not enrolled in a waiver and your request to be enrolled in a waiver is denied, your appeal rights are limited to the decision that you are not eligible to have your request documented in a statewide data base because you do not need ((ICF/MR)) ICF/ID level of care per WAC 388-845-0070, 388-828-8040 or 388-828-8060.

#### NEW SECTION

**WAC 388-825-201 What is the purpose of enhanced respite services?** Enhanced respite services are designed to enable DDD enrolled children and youth, who meet specific criteria, access to short term respite in a DDD contracted and licensed staffed residential setting.

#### NEW SECTION

**WAC 388-825-206 Who is eligible to receive enhanced respite services?** (1) To be eligible for enhanced respite services, the following conditions must be met at a minimum:

(a) The child has been determined eligible for DDD services per RCW 71A.10.020(3);

(b) The child is at least eight years of age and under age eighteen;

(c) The child is at high risk of institutionalization and/or out-of-home placement; and

(d) The parents/caregivers have demonstrated they have accessed alternative appropriate and available services to meet the unmet need.

(2) The enhanced respite services committee will also consider the following factors when reviewing requests for services:

(a) The child is experiencing school placement disruption and/or a shortened school day due to his/her behavior;

(b) There is a current family emergency;

(c) The child has had behavioral incident(s), which resulted in injury to self or others that required more than first aid;

(d) The child is awake at night, resulting in the child and/or the caregivers receiving less than five hours of uninterrupted sleep per night;

(e) The child is exhibiting behaviors such as aggression with significant injury, elopement, and challenging repetitive behaviors;

(f) The child's behavior acuity level is high per WAC 388-828-5640, the ICF/ID score is eligible per WAC 388-828-4400, and the caregiver's risk score is medium, high, or immediate per WAC 388-828-5300; and/or

(g) The child has assessed needs that exceed the scope of current services and/or is currently not eligible to receive any paid services.

#### NEW SECTION

**WAC 388-825-211 How long am I eligible to receive enhanced respite services?** The maximum length of stay the child/youth may access services is for up to thirty days total in a calendar year.

#### WSR 12-16-103

#### PROPOSED RULES

#### DEPARTMENT OF

#### SOCIAL AND HEALTH SERVICES

(Aging and Disability Services Administration)

[Filed August 1, 2012, 9:46 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-09-093.

Title of Rule and Other Identifying Information: Amending WAC 388-865-0536 Standards for administration and 388-865-0755 Standards for administration.

Hearing Location(s): Office Building 2, Lookout Room, DSHS Headquarters, 1115 Washington, Olympia, WA 98504, (public parking at 11th and Jefferson. A map is available at <http://www1.dshs.wa.gov/msa/rpau/RPAU-OB-2directions.html>), on September 4, 2012, at 10:00 a.m.

Date of Intended Adoption: Not earlier than September 5, 2012.

Submit Written Comments to: DSHS Rules Coordinator, P.O. Box 45850, Olympia, WA 98504, e-mail DSHS RPAURulesCoordinator@dshs.wa.gov, fax (360) 664-6185, by 5 p.m. on September 4, 2012.

Assistance for Persons with Disabilities: Contact Jennisha Johnson, DSHS rules consultant, by August 24, 2012, TTY (360) 664-6178 or (360) 664-6094 or by e-mail at [jennisha.johnson@dshs.wa.gov](mailto:jennisha.johnson@dshs.wa.gov).

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: These rules meet the requirements of SSB 5452 that requires, in part, procedures to ensure a facility documents in an individual's clinical record that the mental health provider informed the arresting officer of the individual's release from the facility by agreement to voluntarily participate in outpatient treatment when the arresting officer specifically requested notification and provided contact information.

Reasons Supporting Proposal: See Purpose above.

Statutory Authority for Adoption: RCW 10.31.110, 71.05.153, 71.05.190 and chapter 74.09 RCW, SSB 5452.

Statute Being Implemented: RCW 10.31.110, 71.05.-153, 71.05.190 and chapter 74.09 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Department of social and health services, governmental.

Name of Agency Personnel Responsible for Drafting: Kathy Sayre, P.O. Box 45330, Olympia, WA 98504-5330, (360) 725-1342; Implementation and Enforcement: Pete Marburger, P.O. Box 45330, Olympia, WA 98504-5330, (360) 725-1513.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The preparation of a small business economic impact statement is not required, as no new costs will be imposed on small businesses or nonprofits.

A cost-benefit analysis is not required under RCW 34.05.328. These rules are exempt under RCW 34.05.328 (5)(b)(v) as they are explicitly and specifically dictated by statute.

July 26, 2012

Katherine I. Vasquez

Rules Coordinator

AMENDATORY SECTION (Amending WSR 04-07-014, filed 3/4/04, effective 4/4/04)

**WAC 388-865-0536 Standards for administration—Inpatient evaluation and treatment facilities.** ~~((The))~~ An inpatient evaluation and treatment facility must develop a policy to implement the following administrative requirements:

(1) A description of the program, including age of consumers to be served, length of stay and services to be provided.

(2) An organizational structure including clear lines of authority for management and clinical supervision.

(3) Designation of a physician or other mental health professional as the professional person in charge of clinical services at that facility.

(4) A quality management plan to monitor, collect data and develop improvements to meet the requirements of this chapter.

(5) A policy management structure that establishes:

(a) Procedures for maintaining and protecting resident medical/clinical records consistent with chapter 70.02 ~~((WAC))~~ RCW, "Medical Records Health Care Information Access and Disclosure Act" and Health Insurance Portability and Accountability Act (HIPAA);

(b) Procedures for maintaining adequate fiscal accounting records consistent with generally accepted accounting principles (GAAP);

(c) Procedures for management of human resources to ensure that residents receive individualized treatment or care by adequate numbers of staff who are qualified and competent to carry out their assigned responsibilities;

(d) Procedures for admitting consumers needing inpatient evaluation and treatment services seven days a week,

twenty-four hours a day, except that child long-term inpatient treatment facilities are exempted from this requirement;

(e) Procedures to assure appropriate and safe transportation for persons who are not approved for admission to his or her residence or other appropriate place;

(f) Procedures to detain arrested persons who are not approved for admission for up to eight hours ~~((in order))~~ so that reasonable attempts can be made to ((enable)) notify law enforcement to return to the facility and take the person back into custody;

(g) Procedures to assure access to necessary medical treatment, emergency life-sustaining treatment, and medication;

(h) Procedures to assure the protection of consumer and family rights as described in this chapter and chapters 71.05 and 71.34 RCW;

(i) Procedures to inventory and safeguard the personal property of the consumer being detained, including a process to limit inspection of the inventory list by responsible relatives or other persons designated by the detained consumer;

(j) Procedures to assure that a mental health professional and licensed physician are available for consultation and communication with both the consumer and the direct patient care staff twenty-four hours a day, seven days a week;

(k) Procedures to provide warning to an identified person and law enforcement when an adult has made a threat against an identified victim;

(l) Procedures to ensure that consumers detained for up to fourteen or ninety additional days of treatment are evaluated by the professional staff of the facility in order to be prepared to testify that the consumer's condition is caused by a mental disorder and either results in likelihood of serious harm or the consumer being gravely disabled;

(m) Procedures to assure the rights of consumers to make mental health advance directives, and facility protocols for responding to consumer and agent requests consistent with RCW 71.32.150;

(n) Procedures to ensure that the following requirements are met when an individual is brought to the facility by a peace officer under RCW 71.05.153:

(i) The individual must be examined by a mental health professional (MHP) within three hours of arrival;

(ii) Within twelve hours of arrival, a designated mental health professional (DMHP) must determine if the individual meets detention criteria under chapter 71.05 RCW; and

(iii) If the facility releases the individual to the community, the facility must inform the peace officer of the release within a reasonable period of time after the release if the peace officer has specifically requested notification and has provided contact information to the facility.

AMENDATORY SECTION (Amending WSR 08-14-079, filed 6/26/08, effective 7/27/08)

**WAC 388-865-0755 Standards for administration—Crisis stabilization units.** ~~((The))~~ A crisis stabilization unit must ensure that the following standards for administration are met:

(1) A description of the program, including age of persons to be served, length of stay, and services to be provided.

(2) An organizational structure that demonstrates clear lines of authority for administrative oversight and clinical supervision.

(3) The professional person in charge of administration of the unit is a mental health professional.

(4) A management plan to monitor, collect data and develop improvements to meet the requirements of this chapter.

(5) A policy management structure that establishes:

(a) Procedures for maintaining and protecting personal medical/clinical records consistent with chapter 70.02 ~~((WAC))~~ RCW, "Medical records—Health care information access and disclosure," and the Health Insurance Portability and Accountability Act (HIPAA)~~((;))~~.

(b) Procedures for managing human resources to ensure that persons receive individualized evaluation and crisis stabilization services by adequate numbers of staff who are qualified and competent to carry out their assigned responsibilities~~((;))~~.

(c) Procedures for ensuring a secure environment appropriate to the legal status of the person(s), and necessary to protect the public safety. "Secure" means having:

(i) All doors and windows leading to the outside locked at all times;

(ii) Visual monitoring, either by line-of-sight or camera as appropriate to the individual;

(iii) Adequate space to segregate violent or potentially violent persons from others;

(iv) The means to contact law enforcement immediately in the event of an elopement from the facility; and

(v) Adequate numbers of staff present at all times that are trained in facility security measures.

(d) Procedures for admitting persons needing crisis stabilization services seven days a week, twenty-four hours a day~~((;))~~.

(e) Procedures to ensure that for persons who have been brought to the unit involuntarily by police, the stay is limited to twelve hours unless the individual has signed voluntarily into treatment.

(f) Procedures to ensure that within twelve hours of the time of arrival to the crisis stabilization unit, individuals who have been detained by a designated mental health professional or designated crisis responder under chapter 71.05 or 70.96B RCW are transferred to a certified evaluation and treatment facility.

(g) Procedures to assure appropriate and safe transportation of persons who are not approved for admission or detained for transfer to an evaluation and treatment facility, and if not in police custody, to their respective residence or other appropriate place~~((;))~~.

(h) Procedures to detain arrested persons who are not ~~((otherwise detained and transferred to an evaluation and treatment facility for a period of up to eight hours in order to enable law enforcement to return to the facility and take the person back into custody;))~~ approved for admission for up to eight hours so that reasonable attempts can be made to notify law enforcement to return to the facility and take the person back into custody.

(i) Procedures to ensure access to emergency life-sustaining treatment, necessary medical treatment, and medication((?)).

(j) Procedures to ensure the protection of personal and familial rights as described in WAC 388-865-0561 and chapter 71.05 RCW((?)).

(k) Procedures to inventory and safeguard the personal property of the persons being detained((?)).

(l) Procedures to ensure that a mental health professional (as defined in chapter 388-865 WAC) is on-site twenty-four hours a day, seven days a week((?)).

(m) Procedures to ensure that a licensed physician is available for consultation to direct care staff and patients twenty-four hours a day, seven days a week((?)).

(n) Procedures to provide warning to an identified individual and law enforcement when an individual has made a threat against an identified victim, in accordance with RCW 71.05.390(10)((?)).

(o) Procedures to ensure the rights of persons to make mental health advance directives((~~and~~)).

(p) Procedures to establish unit protocols for responding to the provisions of the advanced directives consistent with RCW 71.32.150.

(q) Procedures to ensure that the following requirements are met when an individual is brought to the facility by a peace officer under RCW 71.05.153:

(i) The individual must be examined by a mental health professional (MHP) within three hours of arrival:

(ii) Within twelve hours of arrival, a designated mental health professional (DMHP) must determine if the individual meets detention criteria under chapter 71.05 RCW; and

(iii) If the facility releases the individual to the community, the facility must inform the peace officer of the release within a reasonable period of time after the release if the peace officer has specifically requested notification and has provided contact information to the facility.

## WSR 12-16-104

### PROPOSED RULES

### DEPARTMENT OF

### SOCIAL AND HEALTH SERVICES

(Aging and Disability Services Administration)

[Filed August 1, 2012, 9:46 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-01-117.

Title of Rule and Other Identifying Information: The department is proposing the amendment and adoption of new sections in chapter 388-828 WAC to provide information regarding the process the department will follow in [to] determine the number of hours a person may receive when they are approved for community access services. Division of developmental disabilities (DDD) is proposing the amendment of WAC 388-828-4420 How does DDD determine your percentile rank and standard score for each subscale in the SIS support needs scale?; and DDD is proposing the adoption of four new sections in chapter 388-828 WAC. They are

WAC 388-828-4165 How Does DDD determine your total raw score for each subscale in the SIS support needs scale?, 388-828-4440 How does DDD determine your SIS support needs index percentile ranking?, 388-828-9300 What is the DDD community access acuity scale? and 388-828-9310 How does DDD determine the number of hours you may receive each month for community access services?; and amending WAC 388-828-4420 How does DDD determine your percentile rank and standard score for each subscale in the SIS support needs scale?

Hearing Location(s): Office Building 2, Lookout Room, DSHS Headquarters, 1115 Washington, Olympia, WA 98504 (public parking at 11th and Jefferson. A map is available at <http://www1.dshs.wa.gov/msa/rpau/RPAU-OB-2directions.html>), on September 4, 2012, at 10:00 a.m.

Date of Intended Adoption: Not earlier than September 5, 2012.

Submit Written Comments to: DSHS Rules Coordinator, P.O. Box 45850, Olympia, WA 98504, e-mail DSHS RPAURulesCoordinator@dshs.wa.gov, fax (360) 664-6185, by 5 p.m. on September 4, 2012.

Assistance for Persons with Disabilities: Contact Jennisha Johnson, DSHS rules consultant, by August 21, 2012, TTY (360) 664-6178 or (360) 664-6094 or by e-mail at [jennisha.johnson@dshs.wa.gov](mailto:jennisha.johnson@dshs.wa.gov).

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The purpose of these rules is to implement a consistent, statewide process for use in determining the amount of hours individuals may receive when community access services are approved in their individual support plan. The need for these rules is in response to direction from the legislature, in the 2009-2011 operating budget, to develop and implement the use of a consistent, statewide, outcome-based vendor contract. In addition, the Center for Medicare and Medicaid Services has requested that the 2012 home and community based services (HCBS) waiver renewals contain specific information that describes the process the department will follow to determine the number of hours a person may receive when they are approved for community access services.

Reasons Supporting Proposal: See above.

Statutory Authority for Adoption: RCW 71A.12.030, 71A.12.040, 74.08.090, 34.05.100.

Statute Being Implemented: RCW 71A.12.030, 71A.12.040, 34.05.100.

Rule is necessary because of federal law, [no further information supplied by agency.]

Name of Proponent: Department of social and health services, public.

Name of Agency Personnel Responsible for Drafting and Implementation: Branda Matson, P.O. Box 45310, Olympia, WA 98504-5310, (360) 725-3405; and Enforcement: Mark Eliason, P.O. Box 45310, Olympia, WA 98504-5310, (360) 725-3452.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The preparation of a small business impact statement is not required as no new costs will be imposed on small businesses or nonprofits as a result of this rule amendment.



A cost-benefit analysis is not required under RCW 34.05.328. Rules are exempt per RCW 34.05.328 (5)(b)(v), rules the content of which is explicitly and specifically dictated by statute.

July 30, 2012  
 Katherine I. Vasquez  
 Rules Coordinator

NEW SECTION

**WAC 388-828-4165 How does DDD determine your total raw score for each subscale in the SIS support needs scale?** (1) DDD adds the raw scores (WAC 388-828-4160) for each activity assessed in each subscale of the SIS support needs scale to determine your total raw score for that subscale.

(2) The raw score for question number 9 in the home living activities subscale (WAC 388-828-4200) "using currently prescribed equipment or treatment" is not included in the total raw score for the home living activities subscale.

AMENDATORY SECTION (Amending WSR 07-10-029, filed 4/23/07, effective 6/1/07)

**WAC 388-828-4420 How does DDD determine your percentile rank and standard score for each subscale in the SIS support needs scale?** DDD uses the following table to convert your total raw score for each subscale into a percentile ranking:

If your raw score for the following SIS subscale is:						Then your percentile rank for the SIS subscale is:	<u>And your standard score for the SIS subscale is:</u>
Home Living	Community Living	Lifelong Learning	Employment Support	Health and Safety	Social Activities		
						>99	<u>20</u>
>88	>94					>99	<u>19</u>
87-88	93-94					>99	<u>18</u>
85-86	91-92			>97		99	<u>17</u>
81-84	88-90	>96	>95	92-97	>97	98	<u>16</u>
77-80	84-87	92-96	91-95	86-91	91-97	95	<u>15</u>
73-76	79-83	86-91	85-90	79-85	84-90	91	<u>14</u>
68-72	74-78	79-85	78-84	72-78	76-83	84	<u>13</u>
62-67	69-73	72-78	70-77	65-71	68-75	75	<u>12</u>
55-61	63-68	64-71	61-69	57-64	58-67	63	<u>11</u>
48-54	56-62	55-63	52-60	49-56	48-57	50	<u>10</u>
40-47	49-55	46-54	42-51	42-48	38-47	37	<u>9</u>
32-39	41-48	36-45	32-41	34-41	28-37	25	<u>8</u>
25-31	33-40	27-35	23-31	27-33	19-27	16	<u>7</u>
18-24	25-32	18-26	15-22	20-26	10-18	9	<u>6</u>
11-17	16-24	9-17	7-14	13-19	3-9	5	<u>5</u>
3-10	6-15	<9	<7	7-12	<3	2	<u>4</u>
<3	<6			1-6		1	<u>3</u>
				<1		<1	<u>2</u>
						<1	<u>1</u>

NEW SECTION

**WAC 388-828-4440 How does DDD determine your SIS support needs index percentile ranking?** (1) DDD determines your SIS support needs index percentile ranking by adding together the standard scores (WAC 388-828-4420) for the following supports intensity scale assessment subscales:

- (a) Home living activities in WAC 388-828-4200.
- (b) Community living activities in WAC 388-828-4220.
- (c) Lifelong learning activities in WAC 388-828-4240.
- (d) Employment activities in WAC 388-828-4260.

- (e) Health and safety activities in WAC 388-828-4280.
- (f) Social activities in WAC 388-828-4300.
- (2) Your standard scores for the above scales are added together to determine the sum of the standard scores.
- (3) The supplemental protection and advocacy activities scale, and the exceptional medical and behavioral supports scales are not used in determining your support needs index percentile ranking.
- (4) The sum of the standard scores is converted to your support needs index percentile ranking using the following table:

If the sum of the standard scores is:	Your support needs index percentile is:
≥91	>99
90	99
89	99
88	99
87	98
86	98
85	97
84	97
83	96
82	95
81	95
80	94
79	93
78	92
77	91
76	89
75	87
74	86
73	84
72	82
71	81
70	77
69	75
68	73
67	70
66	68
65	65
64	63
63	58
62	55
61	53
60	50
59	47
58	45
57	39
56	37
55	35
54	32
53	30
52	27
51	25
50	23
49	19
48	18
47	16
46	14

If the sum of the standard scores is:	Your support needs index percentile is:
45	13
44	13
43	9
42	8
41	7
40	6
39	5
38	5
37	4
36	3
35	3
34	2
33	2
32	1
31	1
30	1
≤29	<1

**NEW SECTION**

**WAC 388-828-9300 What is the DDD community access acuity scale?** The DDD community access acuity scale is an algorithm DDD uses to determine the number of support hours you may receive when you are approved for community access services.

**NEW SECTION**

**WAC 388-828-9310 How does DDD determine the number of hours you may receive each month for community access services?** (1) The number of hours of community access services you may receive each month is based on your community access service level.

(2) DDD determines your community access service level based on your SIS support needs index percentile ranking (WAC 388-828-4440) as detailed in the following table:

If your SIS support needs index percentile ranking according to WAC 388-828-4440 is:	Your community access service level is:	The number of hours you may receive for community access services each month is:
0 - 9th percentile	A	Up to 3 hours
10th - 19th percentile	B	Up to 6 hours
20th - 29th percentile	C	Up to 9 hours
30th - 44th percentile	D	Up to 12 hours
45th - 59th percentile	E	Up to 15 hours
60th - 74th percentile	F	Up to 18 hours
75th - 100th percentile	G	Up to 20 hours

**WSR 12-16-105**  
**PROPOSED RULES**  
**DEPARTMENT OF AGRICULTURE**

[Filed August 1, 2012, 9:47 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-12-067.

Title of Rule and Other Identifying Information: Chapter 16-623 WAC, Commission Merchant Act—Licensing fees, proof of payment, cargo manifests and registration of acreage commitments. The department is proposing to increase the license fee for commission merchants, dealers, limited dealers, brokers, cash buyers, and agents. These licenses are issued under chapter 20.01 RCW, which authorizes the agricultural investigations program.

Hearing Location(s): Washington State Department of Agriculture, 21 North First Avenue, Conference Room 238, Yakima, WA 98902, on September 5, 2012, at 1:00 p.m.

Date of Intended Adoption: September 12, 2012.

Submit Written Comments to: Henri Gonzales, P.O. Box 42560, Olympia, WA 98504-2560, e-mail hgonzales@agr.wa.gov, fax (360) 902-2094, by September 5, 2012.

Assistance for Persons with Disabilities: Contact Henri Gonzales by August 29, 2012, TTY (800) 833-6388 or 711.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The department is proposing to increase the licensing fees for commission merchants, dealers, limited dealers, brokers, cash buyers, and agents licensed under chapter 20.01 RCW (Commission Merchants Act). During the 2012 legislative session, the Washington state legislature authorized (as required by Initiative 960) the Washington state department of agriculture to increase these licensing fees as necessary to meet the actual costs of conducting business (see 3ESHB 2127, chapter 7, Laws of 2012). The department also proposes to make changes for purposes of formatting and clarity.

Reasons Supporting Proposal: The agricultural investigations program enforces the Commission Merchants Act; licenses commission merchants, dealers, brokers, agents, and cash buyers; and investigates complaints. The program's revenue is largely derived from license fees. After evaluating the budget and future needs, the agency determined the current fees do not generate enough revenue to sustain program operations and maintain an adequate fund reserve. An increase in licensing fees is necessary to cover the costs of operating the program.

Statutory Authority for Adoption: RCW 20.01.020 and 20.01.040; chapter 34.05 RCW; and 3ESHB 2127, chapter 7, Laws of 2012.

Statute Being Implemented: RCW 20.01.020 and 20.01.040.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Washington state department of agriculture, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Jerry Buendel, 1111 Washington Street, Olympia, WA 98504-2560, (360) 902-1856.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The agricultural investigations program has conducted a survey, evaluated the proposed rule amendments, and analyzed the costs of compliance. On the basis of this information, the department has determined that the proposed rule amendments will not impose more than minor costs on the regulated businesses.

The proposed amendments will not have a more than minor cost impact on the small businesses required to be licensed under chapter 20.01 RCW. The maximum cost to the licensees including those classified as small businesses is \$45, below the threshold amount defined as minor costs. Chapter 19.85 RCW, the Regulatory Fairness Act, defines "minor cost" as a cost per business that is less than three-tenths of one percent of annual revenue or income, or one hundred dollars, whichever is greater, or one percent of annual payroll and defines "small business" as a business that employs fifty or fewer employees.

A cost-benefit analysis is not required under RCW 34.05.328. The Washington state department of agriculture is not a listed agency under RCW 34.05.328 (5)(a)(i).

August 1, 2012

Mary A. Martin Toohey  
Assistant Director

AMENDATORY SECTION (Amending WSR 05-09-094, filed 4/20/05, effective 5/21/05)

**WAC 16-623-001 (~~What is the~~) Purpose (~~of this chapter?~~)**. The purpose of this chapter is to implement and clarify selected portions of chapter 20.01 RCW. This chapter addresses four topics.

- (1) Licensing fees and requirements for commission merchants, dealers, brokers, cash buyers or agents.
- (2) Recordkeeping and proof of payment requirements for licensees.
- (3) Cargo manifests and shipping documents that accompany hay and straw during transportation.
- (4) Rules governing the registration of processor acreage commitments made to producers of annual crops.

AMENDATORY SECTION (Amending WSR 05-09-094, filed 4/20/05, effective 5/21/05)

**WAC 16-623-005 (~~What~~) Definitions (~~are important to this chapter?~~)**. In addition to the definitions listed in RCW 20.01.010, the following definitions are important to understanding this chapter:

"Department" means the Washington state department of agriculture.

"Director" means the director of the Washington state department of agriculture or their designee.

AMENDATORY SECTION (Amending WSR 09-20-047, filed 10/1/09, effective 11/1/09)

**WAC 16-623-010 (~~What~~) License requirements (~~apply to licenses for commission merchants, dealers, brokers, cash buyers and agents?~~)**. (1) The following table summarizes the license fee requirements for commission merchants, dealers, brokers, cash buyers, or agents:

License Class	License Fee	Annual Expiration Date	Annual Renewal Date	Penalty Amount for Not Renewing Before January 1
Commission merchant	\$ <del>((560.00))</del> 605.00	December 31	Before January 1	A late renewal penalty of twenty-five percent of the total fees
Dealer	\$ <del>((560.00))</del> 605.00	December 31	Before January 1	A late renewal penalty of twenty-five percent of the total fees
Limited dealer	\$ <del>((310.00))</del> 335.00	December 31	Before January 1	A late renewal penalty of twenty-five percent of the total fees
Broker	\$ <del>((375.00))</del> 405.00	December 31	Before January 1	A late renewal penalty of twenty-five percent of the total fees
Cash buyer	\$ <del>((125.00))</del> 135.00	December 31	Before January 1	A late renewal penalty of twenty-five percent of the total fees
Agent	\$ <del>((61.00))</del> 66.00	December 31	Before January 1	A late renewal penalty of twenty-five percent of the total fees
Additional license per class	\$25.00	December 31	Before January 1	A late renewal penalty of twenty-five percent of the total fees

(2) A licensee can be licensed in more than one class for an additional fee of twenty-five dollars per class. The principal license must be in the class requiring the greatest fee and all requirements must be met for each class in which a license is being requested.

(3) All fees and penalties must be paid before the department issues a license.

(4) Applications for licenses are considered incomplete unless an effective bond or other acceptable form of security is ~~((also))~~ filed with the director.

(5) Licenses may be obtained by contacting the department's ~~((commission merchants))~~ agricultural investigations program at 360-902-1854 or e-mail at: [commerch@agr.wa.gov](mailto:commerch@agr.wa.gov). Application forms, bond forms, and forms for securities in lieu of a surety bond are available on the department's web site at: [http://www.agr.wa.gov/Inspection/Commission Merchants/](http://www.agr.wa.gov/Inspection/Commission_Merchants/).

AMENDATORY SECTION (Amending WSR 05-09-094, filed 4/20/05, effective 5/21/05)

**WAC 16-623-015 ~~((What))~~ Securities ~~((are acceptable))~~ in lieu of a surety bond~~((?))~~.** An applicant or licensee may file an assignment of savings or irrevocable letter of credit with the director in lieu of a surety bond. These instruments are subject to the same requirements and provisions as bonds stated in RCW 20.01.210, 20.01.211, and 20.01.212.

AMENDATORY SECTION (Amending WSR 05-09-094, filed 4/20/05, effective 5/21/05)

**WAC 16-623-020 ~~((What are the))~~ Recordkeeping requirements for commission merchants, dealers, brokers and cash buyers~~((?))~~.** Every commission merchant, dealer, broker and cash buyer ~~((who takes possession of or purchases agricultural products))~~ must keep accurate records. The recordkeeping requirements for:

- (1) Commission merchants are specified in RCW 20.01.370;
- (2) Dealers and cash buyers are specified in RCW 20.01.380; and

(3) Brokers are specified in RCW 20.01.400.

AMENDATORY SECTION (Amending WSR 05-09-094, filed 4/20/05, effective 5/21/05)

**WAC 16-623-030 ~~((Is a))~~ Cargo manifest ~~((required))~~ requirements for transporting hay and straw~~((?))~~.** (1) All commission merchants, dealers, their employees or licensed agents must have a copy of the cargo manifest with each load when transporting hay or straw on equipment owned or under their control.

(2) Any common carrier transporting hay or straw for a commission merchant or dealer may use shipping documents required by either the Washington public utilities and transportation commission or interstate commerce commission instead of the department form described in subsection (5) of this section.

(3) Any common carriers, commission merchants, dealers, their employees or licensed agents transporting hay or straw may use shipping documents other than the department form described in subsection (5) of this section if they have been reviewed and authorized by the department before their use.

(4) Unless the exceptions in subsections (2) and (3) of this section apply, the manifest must be on a form prescribed by the director which is available from the department.

(5) At a minimum, the form requires the following information:

- (a) Purchaser's name and address;
- (b) Hauler's name and address;
- (c) Business or person the products were received from and their address;
- (d) The commodity, unit count, unit price, total price, total weight, tare weight and weight of the commodity;
- (e) Terms of the settlement;
- (f) Date;
- (g) Signature of the licensee or their agent; and
- (h) Signature of the consignor or their authorized representative.

AMENDATORY SECTION (Amending WSR 05-09-094, filed 4/20/05, effective 5/21/05)

**WAC 16-623-040 ((How must) Reporting a processor's plant capacity ((be reported?)).** (1) According to RCW 20.01.510, a processor must report the daily total capacity in tons, cases or other legal and customary measure for:

- (a) Each crop; and
  - (b) All plants that process any Washington agricultural product.
- (2) For each processing plant reported, the report must include the:
- (a) Name;
  - (b) Site address;
  - (c) Business address; and
  - (d) Name of the person(s) who may receive legal service.

AMENDATORY SECTION (Amending WSR 05-09-094, filed 4/20/05, effective 5/21/05)

**WAC 16-623-050 ((What) Notification requirements ((apply to)) for grower-processor commitments((?)).** (1)(a) Within ten days after a commitment with a processor is made, a grower must notify the director that they have an oral commitment for a specified amount of product.

(b) The grower's notification to the director must be in writing and sent by certified mail to the Washington State Department of Agriculture, c/o the ~~((Commission Merchants))~~ Agricultural Investigations Program, P.O. Box ~~((42594))~~ 42560, Olympia, Washington 98504-~~((2594))~~ 2560.

(2) Once the grower's notification is received, the director has five days to notify the processor by certified mail.

(3) Regardless of whether or not the processor confirms the director's notice, the processor must simultaneously notify the director and grower, by certified mail, within ten days of receipt of the director's notice.

(4) The processor may accept all, none, or any portion of the acreage and/or tonnage stated in the notice.

(5) Once the oral commitment is confirmed for all or for a portion of the acreage and/or tonnage, the processor is committed to receive the acreage or tonnage specified.

(6) If the contract is the processor's standard contract and the terms of the contract, price or other conditions later offered to the grower are unacceptable to the grower, then the agreement is not binding upon the processor.

AMENDATORY SECTION (Amending WSR 05-09-094, filed 4/20/05, effective 5/21/05)

**WAC 16-623-060 ((How are) Establishing contract volumes ((established?)).** For contracts purchasing the production of a specific number of acres, the:

(1) Amount contracted for will be based on the crop yield for the comparable area for the most recent five-year average; and

(2) Crop yield will be determined by using data from the USDA's National Agricultural Statistics Service.

## WSR 12-16-115

### PROPOSED RULES

#### HEALTH CARE AUTHORITY

(Medicaid Program)

[Filed August 1, 2012, 11:55 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 12-05-026.

Title of Rule and Other Identifying Information: Chapter 182-526 WAC, Administrative hearings rules for medical services programs.

Hearing Location(s): Health Care Authority (HCA), Cherry Street Plaza Building, Conference Room, 626 8th Avenue, Olympia, WA 98504 (metered public parking is available street side around building. A map is available at <http://maa.dshs.wa.gov/pdf/CherryStreetDirectionsNMap.pdf> or directions can be obtained by calling (360) 725-1000), on September 4, 2012, at 10:00 a.m.

Date of Intended Adoption: Not sooner than September 5, 2012.

Submit Written Comments to: HCA Rules Coordinator, P.O. Box 45504, Olympia WA, 98504-5504, delivery 626 8th Avenue, Olympia, WA 98504, e-mail [arc@hca.wa.gov](mailto:arc@hca.wa.gov), fax (360) 586-9727, by 5:00 p.m. on September 4, 2012.

Assistance for Persons with Disabilities: Contact Kelly Richters by August 30, 2012, TTY (800) 848-5429 or (360) 725-1307 or e-mail [kelly.richters@hca.wa.gov](mailto:kelly.richters@hca.wa.gov).

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The agency is establishing hearing rules related to medicaid funded services. This chapter applies to resolution disputes between an appellant and the various medical services programs established under chapter 74.09 RCW and for subsidized basic health under chapter 74.47 RCW.

Reasons Supporting Proposal: These rules implement the requirements of 2E2SBH [2E2SHB] 1738, section 53, effective July 1, 2011, for the transition of the single state medicaid agency to the HCA.

Statutory Authority for Adoption: Section 53, chapter 15, Laws of 2011, 2E2SHB 1738, chapters 74.09, 34.05 RCW, 10-08 WAC.

Statute Being Implemented: Section 53, chapter 15, Laws of 2011, 2E2SHB 1738.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: HCA, governmental.

Name of Agency Personnel Responsible for Drafting: Wendy L. Boedigheimer, HCA, P.O. Box 45504, Olympia, WA, (360) 725-1306; Implementation and Enforcement: Annette Schuffenhauer, HCA, P.O. Box 45504, Olympia, WA, (360) 725-1254.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The agency has analyzed the proposed rules and concludes that they do not impose more than minor costs for affected small businesses.

A cost-benefit analysis is not required under RCW 34.05.328. RCW 34.05.328 does not apply to HCA rules

unless requested by the joint administrative rules [review] committee or applied voluntarily.

Kevin M. Sullivan  
Rules Coordinator

### Chapter 182-526 WAC

#### ADMINISTRATIVE HEARING RULES FOR MEDICAL SERVICES PROGRAMS

##### NEW SECTION

**WAC 182-526-0005 Purpose and scope.** This chapter describes the general hearing rules and procedures that apply to the resolution of disputes between an appellant and medical services programs established under chapter 74.09 RCW and subsidized basic health under chapter 70.47 RCW. This chapter supplements the Administrative Procedure Act (APA), chapter 34.05 RCW, and the model rules, chapter 10-08 WAC, adopted by the office of administrative hearings (OAH).

(1) This chapter:

(a) Establishes rules encouraging informal dispute resolution between the health care authority (HCA), its authorized agents, or an HCA-contracted managed care organization (MCO), and persons or entities who disagree with its actions; and

(b) Regulates all hearings involving medical services programs established under chapter 74.09 RCW and subsidized basic health under chapter 70.47 RCW unless specifically excluded by this chapter or program rules.

(2) Nothing in this chapter is intended to affect the constitutional rights of any person or to limit or change additional requirements imposed by statute or other rule. Other laws or rules determine if a hearing right exists, including the APA and program rules or laws.

(3) If there is a conflict between this chapter and specific program rules, the specific program rules prevail. HCA's hearing rules and program rules prevail over the model hearing rules in chapter 10-08 WAC.

(4) The hearing rules in this chapter do not apply to the following programs:

(a) Public employees benefits board program (see chapter 182-16 WAC); and

(b) The Washington health plan (see chapter 182-22 WAC).

##### NEW SECTION

**WAC 182-526-0010 Definitions.** The following definitions and those found in RCW 34.05.010 apply to this chapter:

**"Administrative law judge (ALJ)"** - An impartial decision-maker who is an attorney and presides at an administrative hearing. ALJs are employed by the office of administrative hearings (OAH), which is a separate state agency. ALJs are not department of social and health services or health care authority (HCA) employees or representatives.

**"Applicant"** - Any person who has made a request, or on whose behalf a request has been made, to HCA, or HCA's

authorized agent on HCA's behalf, for assistance through a medical service program established under chapter 74.09 RCW.

**"Authorized agent"** - A person or agency acting on HCA's behalf pursuant to an agreement authorized by RCW 41.05.021. The authorized agent(s) may include employees of the department of social and health services or its contractors but does not include employees of HCA-contracted managed care organizations.

**"Board of appeals" or "BOA"** - The HCA's board of appeals.

**"Business days"** - All days except Saturdays, Sundays, and legal holidays.

**"Calendar days"** - All days including Saturdays, Sundays, and legal holidays.

**"Continuance"** - A change in the date or time of a pre-hearing conference, hearing, or the deadline for other action.

**"Date of the health care authority (HCA) action"** - The date when the HCA's decision is effective.

**"Deliver"** - Giving a document to a person or entity in person or placing the document into the person or entity's possession as authorized by the rules in this chapter or chapter 34.05 RCW.

**"Department"** - The department of social and health services.

**"Documents"** - Papers, letters, writings, or other printed or written items.

**"Final order"** - An order that is the final HCA decision.

**"HCA"** - The health care authority.

**"Health care authority (HCA) hearing representative"** - An employee of HCA, an authorized agent of HCA, HCA contractor or a contractor of HCA's authorized agent, or an assistant attorney general authorized to represent HCA in an administrative hearing. An employee of an HCA contracted managed care organization is not an HCA hearing representative.

**"Hearing"** - Unless context clearly requires a different meaning, a proceeding before an ALJ, HCA-employed presiding officer, or a review judge that gives a party an opportunity to be heard in disputes about medical services programs established under chapter 74.09 RCW and subsidized basic health under chapter 70.47 RCW. For purposes of this chapter, hearings include administrative hearings, adjudicative proceedings, and any other similar term referenced under chapter 34.05 RCW, the Administrative Procedure Act, Titles 182 and 388 WAC, chapter 10-08 WAC, or other law.

**"Initial order"** - A hearing decision entered (made) by an ALJ that may be reviewed by a review judge at any party's request.

**"Intermediary interpreter"** - An interpreter who:

(1) Is a certified deaf interpreter (CDI); and

(2) Is able to assist in providing an accurate interpretation between spoken and sign language or between types of sign language by acting as an intermediary between a person with hearing loss and a qualified interpreter.

**"Judicial review"** - A superior court's review of a final order.

**"Limited-English-proficient (LEP)"** - Includes limited-English-speaking persons or other persons unable to communicate in spoken English because of hearing loss.

**"Limited-English-speaking (LES) person"** - A person who, because of non-English-speaking cultural background or disability, cannot readily speak or understand the English language.

**"Mail"** - Placing a document in the United States Postal system, or commercial delivery service, properly addressed and with the proper postage.

**"Managed care organization" or "MCO"** - An organization having a certificate of authority or certificate of registration from the office of insurance commissioner that contracts with HCA under a comprehensive risk contract to provide prepaid healthcare services to eligible clients under HCA's managed care programs.

**"OAH"** - The office of administrative hearings, which is a separate state agency from HCA or the department of social and health services.

**"Party":**

- (1) The health care authority (HCA);
- (2) HCA-contracted managed care organization (MCO) (if applicable); and
- (3) A person or entity:
  - (a) Named in the action;
  - (b) To whom the action is directed; or
  - (c) Is allowed to participate in a hearing to protect an interest as authorized by law or rule.

**"Person with hearing loss"** - A person who, because of a loss of hearing, cannot readily speak, understand, or communicate in spoken language.

**"Prehearing conference"** - A proceeding scheduled and conducted by an ALJ or other reviewing officer to address issues in preparation for a hearing.

**"Prehearing meeting"** - An informal, voluntary meeting that may be held before any prehearing conference or hearing.

**"Program"** - An organizational unit and the services that it provides, including services provided by HCA staff, its authorized agents, and through contracts with providers and HCA-contracted managed care organizations.

**"Qualified interpreter"** - Includes qualified interpreters for a limited-English-speaking person or a person with hearing loss.

**"Qualified interpreter for a limited-English-speaking person"** - A person who is readily able to interpret or translate spoken and written English communications to and from a limited-English-speaking person effectively, accurately, and impartially. If an interpreter is court certified, the interpreter is considered qualified.

**"Qualified interpreter for a person with hearing loss"** - A visual language interpreter who is certified by the Registry of Interpreters for the Deaf (RID) or National Association of the Deaf (NAD) and is readily able to interpret or translate spoken communications to and from a person with hearing loss effectively, accurately, and impartially.

**"Recipient"** - Any person receiving assistance through a medical service program established under chapter 74.09 RCW.

**"Reconsideration"** - Asking a review judge to reconsider a final order entered because the party believes the review judge made a mistake.

**"Record"** - The official documentation of the hearing process. The record includes recordings or transcripts, admitted exhibits, decisions, briefs, notices, orders, and other filed documents.

**"Review"** - A review judge evaluating initial orders entered by an ALJ and making the final HCA decision as provided by RCW 34.05.464, or issuing final orders.

**"Review judge"** - A decision-maker with expertise in program rules that serves as the reviewing officer under RCW 34.05.464. The review judge reviews initial orders and the hearing record exercising decision-making power as if hearing the case as a presiding officer. In some cases, review judges conduct hearings under RCW 34.05.425 as a presiding officer. After reviewing initial orders or conducting hearings, review judges enter final orders. Review judges are employed by HCA but may be physically located at the board of appeals (BOA). The review judge must not have been involved in the initial HCA action.

**"Rule"** - A state regulation. Rules are found in the Washington Administrative Code (WAC).

**"Should"** - That an action is recommended but not required.

**"Stay"** - An order temporarily halting the HCA decision or action.

**"Witness"** - For the purposes of this chapter, means any person who makes statements or gives testimony that becomes evidence in a hearing. One type of witness is an expert witness. An expert witness is qualified by knowledge, skill, experience, training, and education to give opinions or evidence in a specialized area.

NEW SECTION

**WAC 182-526-0015 Terms in the Administrative Procedure Act compared to this chapter.** To improve clarity and understanding, the rules in this chapter may use different words than the Administrative Procedure Act (APA) or the model rules. Following is a list of terms used in those laws and the terms as used in these rules:

Chapter 34.05 RCW Chapter 10-08 WAC	Chapter 182-526 WAC
Adjudicative proceeding.	Different terms are used to refer to different stages of the hearing process and may include prehearing meeting, prehearing conference, hearing, review, reconsideration, and the entire hearing process.
Application for adjudicative proceeding.	Request a hearing.
Presiding officer.	Administrative law judge, review judge, or designated HCA employee.
Reviewing officer.	Review judge.

NEW SECTION

**WAC 182-526-0020 Good cause.** (1) Good cause is a substantial reason or legal justification for failing to appear,

act, or respond to an action. To show good cause, the administrative law judge must find that a party had a good reason for what they did or did not do, using the provisions of Superior Court Civil Rule 60 as a guideline.

(2) Good cause may include, but is not limited to, the following examples:

(a) The party who requested the hearing ignored a notice because he or she was in the hospital or was otherwise prevented from responding; or

(b) The party who requested the hearing could not respond to the notice because it was written in a language that he or she did not understand.

NEW SECTION

**WAC 182-526-0025 Use and location of the office of administrative hearings.** (1) HCA may utilize administrative law judges employed by the office of administrative hearings (OAH) to conduct administrative hearings and issue initial orders in accordance with RCW 34.05.425 (1)(c). In some situations, HCA may use presiding officers employed by HCA to conduct administrative hearings and issue final orders in accordance with RCW 34.05.425 (1)(a) and (b). When HCA uses HCA-employed presiding officers to conduct administrative hearings, the HCA presiding officer shall have all the duties and responsibilities set forth in this chapter relating to administrative law judges and the office of administrative hearings. The notice of hearing will identify whether the case is to be heard by OAH or an HCA-employed presiding officer.

(2)(a) The office of administrative hearings (OAH) headquarters location is:

Office of Administrative Hearings  
2420 Bristol Court S.W.  
P.O. Box 42488  
Olympia, WA 98504-2488  
360-664-8717  
fax: 360-664-8721

(b) The headquarters office is open from 8:00 a.m. to 5:00 p.m. Monday through Friday, except legal holidays.

(3) OAH field offices are at the following locations:

**Olympia**

Office of Administrative Hearings  
2420 Bristol Court S.W.  
P.O. Box 42489  
Olympia, WA 98504-2489  
360-407-2700  
1-800-583-8271  
fax: 360-586-6563

**Seattle**

Office of Administrative Hearings  
One Union Square  
600 University Street, Suite 1500  
Mailstop: TS-07  
Seattle, WA 98101-1129  
206-389-3400  
1-800-845-8830  
fax: 206-587-5135

**Vancouver**

Office of Administrative Hearings  
5300 MacArthur Blvd., Suite 100  
Vancouver, WA 98661  
360-690-7189  
1-800-243-3451  
fax: 360-696-6255

**Spokane**

Office of Administrative Hearings  
Old City Hall Building, 5th Floor  
221 N. Wall Street, Suite 540  
Spokane, WA 99201  
509-456-3975  
1-800-366-0955  
fax: 509-456-3997

**Yakima**

Office of Administrative Hearings  
32 N. 3rd Street, Suite 320  
Yakima, WA 98901-2730  
509-249-6090  
1-800-843-3491  
fax: 509-454-7281

(4) Contact the Olympia field office, under subsection (2) of this section, if unable to identify the correct field office.

(5) Further hearing information can be obtained at the OAH web site: [www.oah.wa.gov](http://www.oah.wa.gov).

NEW SECTION

**WAC 182-526-0030 Contacting the board of appeals.** The information included in this section is current at the time of rule adoption, but may change. Current information and additional contact information are available on the health care authority's internet site, in person at the board of appeals (BOA) office, or by a telephone call to the BOA's main public number.

Board of Appeals	
Location	Office Building 2 (OB-2) 2nd Floor 1115 Washington Street Olympia, Washington
Mailing address	P.O. Box 45803 Olympia, WA 98504-5803
Telephone	360-664-6100
Fax	360-664-6187
Toll free	1-877-351-0002
Internet web site	<a href="http://www.hca.wa.gov/appeals">www.hca.wa.gov/appeals</a>

NEW SECTION

**WAC 182-526-0035 Calculating when a hearing deadline ends.** (1) When counting days to calculate when a hearing deadline ends under program rules or statutes:

(a) Do not include the day of the action, notice, or order. For example, if a hearing decision is mailed on Tuesday and



the party has twenty-one days to request a review, start counting the days with Wednesday.

(b) If the last day of the period is a Saturday, Sunday, or legal holiday, the deadline is the next business day.

(c) For periods of seven days or less, count only business days. For example, if the party has seven days to respond to a review request that was mailed on Friday, May 10th, the response period ends on Tuesday, May 21st.

(d) For periods over seven days, count every calendar day, including Saturdays, Sundays, and legal holidays.

(2) The deadline is 5:00 p.m. on the last day.

(3) If the party who requested the hearing misses a deadline, that party may lose its right to a hearing or appeal of a decision.

#### NEW SECTION

**WAC 182-526-0040 Sending documents to another party, the office of administrative hearings, or to the board of appeals.** (1) When the rules in this chapter or in other program rule or statute require a party to send copies of documents to other parties, the party must serve copies of the documents to the health care authority (HCA) hearing representative and to all other parties or their representatives.

(2) When sending documents to the office of administrative hearings (OAH) or the board of appeals (BOA), the party must file the documents at one of the locations listed in WAC 182-526-0025(2) for OAH or in WAC 182-526-0030 for BOA.

(3) When sending documents to the assigned OAH field office, the parties should use the address of the assigned OAH listed on the notice of hearing. If a field office has not been assigned, all written communication about the hearing must be sent to the OAH Olympia field office, which sends the communication to the correct office.

(4) Documents may be sent only as identified in WAC 182-526-0045 to accomplish service and only as identified in WAC 182-526-0070 to accomplish filing.

#### NEW SECTION

**WAC 182-526-0045 Serving documents.** (1) When a document is delivered to the party, the party is considered served with official notice of the contents of the document.

(2) Unless otherwise stated in law, a party may serve someone by:

(a) Personal service (hand delivery);

(b) First class, registered, or certified mail;

(c) Fax if the party mails a copy of the document the same day;

(d) Commercial delivery service; or

(e) Legal messenger service.

(3) A party must serve all other parties and their representatives whenever the party files a pleading, brief or other document with the office of administrative hearings or the board of appeals, or when required by law.

(4) Service is complete when:

(a) Personal service is made;

(b) Mail is properly stamped, addressed, and deposited in the United States mail;

(c) Fax produces proof of transmission;

(d) A parcel is delivered to a commercial delivery service with charges prepaid; or

(e) A parcel is delivered to a legal messenger service with charges prepaid.

(5) A party may prove service by providing any of the following:

(a) A sworn statement;

(b) The certified mail receipt signed by the recipient;

(c) An affidavit or certificate of mailing;

(d) A signed receipt from the person who accepted the commercial delivery service or legal messenger service package; or

(e) Proof of fax transmission.

(6) Sending a document by e-mail is not a valid method of providing service of the document.

#### NEW SECTION

**WAC 182-526-0070 Filing documents.** (1) Filing is the act of delivering documents to the office of administrative hearings (OAH) or the board of appeals (BOA).

(2) The date of filing is the date documents are received by OAH or the BOA.

(3) Filing is complete when the documents are received by OAH or the BOA during office hours. For documents received after normal office hours, the filing is effective the next business day.

(4) A party may file documents by delivering them to the office of administrative hearings or the BOA by:

(a) Personal service (hand delivery);

(b) First class, registered, or certified mail;

(c) Fax transmission;

(d) Commercial delivery service; or

(e) Legal messenger service.

#### NEW SECTION

**WAC 182-526-0080 Resolving a dispute with the health care authority.** (1) There is a limited time to request a hearing. The party must request a hearing within the deadline established in statute or rule to preserve the hearing right.

(2) If the party who requested the hearing disagrees with a decision or action of the health care authority, or one of its authorized agents, the party has several options for resolving the dispute, which may include the following:

(a) Any special prehearing alternative or administrative process offered by the program;

(b) Prehearing meeting;

(c) Prehearing conference; and

(d) Hearing.

#### NEW SECTION

**WAC 182-526-0085 Determining if a hearing right exists.** (1) A person or entity has a right to a hearing only if a law or program rule gives that right. If the person or entity is not sure whether a hearing right exists, they should request a hearing to protect their rights.

(2) Some programs may require a person or entity to go through an informal administrative process before requesting

or having a hearing. The notice of the action should include information about this requirement if it applies.

(3) Program rules and statutes may limit the time a person or entity has to request a hearing. The deadline for filing the request for hearing varies by the program involved. All hearing requests should be submitted right away to protect the right to a hearing, even if the parties are also trying to resolve the dispute informally.

(4) If a hearing is requested, one is scheduled.

(5) If the health care authority (HCA) hearing representative or the administrative law judge (ALJ) questions the right to a hearing, the ALJ must address whether the hearing right exists.

(6) If on appeal of the initial order the HCA hearing representative or the review judge questions the right to a hearing, the review judge decides whether the hearing right exists.

(7) If the ALJ or review judge decides a person or entity does not have a right to a hearing, the hearing is dismissed.

(8) If the ALJ or review judge decides that a person or entity does have a right to a hearing, the hearing proceeds.

#### NEW SECTION

##### **WAC 182-526-0090 Authority to request a hearing.**

Only a person or entity who has a right under law or rule to an administrative hearing or the representative of that person or entity may request a hearing.

#### NEW SECTION

##### **WAC 182-526-0095 How to request a hearing.** (1) If a person or entity has questions about how, when, and where to request a hearing, they should:

(a) Contact the specific program involved, the office of administrative hearings (OAH), or the board of appeals (BOA);

(b) Review the notice sent by the health care authority (HCA) of the action or decision; or

(c) Review the applicable statute or program rule.

(2) A person or entity may request a hearing in writing or orally, unless a written request is specifically required by applicable statutes or program rules.

(3) An oral request for hearing is allowed unless a program rule or statute requires a written request for hearing. An oral request for hearing can be made to an HCA employee, HCA's authorized agent, or to an OAH employee in person, by telephone, or by voice mail.

(4) A written request for hearing should be sent to the location on the notice. Program rules or statutes may require a specific method and location for sending a written request for hearing.

#### NEW SECTION

**WAC 182-526-0105 Required information for requesting a hearing.** (1) The hearing request must contain enough information to identify the person or entity requesting the hearing and the health care authority (HCA) action. The request should include:

(a) The requestor's name, address, and telephone number;

(b) The client identification or case number, contract number, or any other information that identifies the case or the program involved;

(c) A brief explanation of why the person or entity disagrees with the HCA action; and

(d) Any assistance needed to participate in the hearing, including a foreign or sign language interpreter or any other accommodation for an individual with a disability.

(2) The person or entity requesting the hearing should also refer to a program's specific rules or the notice to determine if additional information is required in the request for hearing.

(3) The office of administrative hearings (OAH) may not be able to process the hearing request if it cannot identify or locate the person or entity requesting the hearing and determine the HCA action involved.

#### NEW SECTION

**WAC 182-526-0110 Process after a hearing is requested.** (1) After a hearing is requested, the office of administrative hearings (OAH) must send a copy of the hearing request to the health care authority (HCA) or HCA's authorized agent who made the decision on HCA's behalf, unless OAH received the hearing request from HCA or HCA's authorized agent. The OAH should send it to HCA or HCA's authorized agent within four business days of the OAH receiving the request.

(2) OAH must serve all the parties a notice containing the hearing date, time, and place. This document is called the notice of hearing. The parties may also receive a written notice of a prehearing conference either before or after receiving the notice of the hearing.

(3) Before the hearing is held:

(a) The HCA hearing representative may contact the other parties and try to resolve the dispute; and

(b) The party who requested the hearing is encouraged to contact the HCA hearing representative and try to resolve the dispute.

(4) If the party who requested the hearing does not appear for the prehearing conference or the hearing, an administrative law judge may enter an order of default and an order dismissing the hearing according to WAC 182-526-0285.

#### NEW SECTION

**WAC 182-526-0112 Rescheduling a hearing.** (1) Any party may request the office of administrative hearings (OAH) to reschedule a proceeding if:

(a) A rule requires the OAH to provide notice of a proceeding; and

(b) OAH does not provide the amount of notice required.

(2) OAH must reschedule the proceeding under circumstances identified in subsection (1) of this section if requested by any party.

(3) The administrative law judge and the parties may agree to shorten the amount of notice required by any rule.

NEW SECTION

**WAC 182-526-0115 Withdrawing the request for hearing.** (1) The party who requested the hearing may withdraw the hearing request for any reason and at any time by contacting the health care authority hearing representative or the office of administrative hearings (OAH). The request for withdrawal must be made in writing or orally with the administrative law judge and the other parties.

(2) After the request for withdrawal is received, the hearing is canceled and OAH enters and serves an order dismissing the hearing. If a hearing request is withdrawn, the party may not be able to request another hearing on the same action.

(3) If a party withdraws the hearing request, the order of dismissal may only be set aside according to WAC 182-526-0290.

NEW SECTION

**WAC 182-526-0120 Interpreter services for hearings.** If the party requesting the hearing needs an interpreter because the party or its witness is a person with limited-English-proficiency, the office of administrative hearings will provide an interpreter at no cost to that party.

NEW SECTION

**WAC 182-526-0130 Limited-English-proficient parties—Notice requirements.** If the office of administrative hearings is notified that the party who has requested the hearing is a limited-English-proficient (LEP) person, all hearing notices, decisions and orders must:

- (1) Be written in that party's primary language; or
- (2) Include a statement in the party's primary language:
  - (a) Indicating the importance of the notice; and
  - (b) Providing information about how to get help in understanding the notice and responding to it.

NEW SECTION

**WAC 182-526-0135 Interpreters** (1) The office of administrative hearings (OAH) must provide a qualified interpreter to assist any person at no charge who:

- (a) Has limited-English-proficiency; and
  - (b) Is a party or witness in a hearing.
- (2) OAH may hire or contract with persons to interpret at hearings.

(3) The following persons may not be used as interpreters:

- (a) A relative of any party;
  - (b) Health care authority (HCA) employees; or
  - (c) HCA authorized agents.
- (4) The administrative law judge (ALJ) must determine, at the beginning of the hearing, if an interpreter can accurately interpret all communication for the person requesting the service. To do so, the ALJ considers the interpreter's:

- (a) Ability to meet the needs of the person with hearing loss or limited-English-speaking person;
- (b) Education, certification, and experience;

(c) Understanding of the basic vocabulary and procedures involved in the hearing; and

(d) Ability to be impartial.

(5) The parties or their representatives may question the interpreter's qualifications and ability to be impartial.

(6) If at any time before or during the hearing the interpreter does not provide accurate and effective communication, the ALJ must provide another interpreter.

NEW SECTION

**WAC 182-526-0140 Waiving interpreter services.** (1) If one of the parties is limited-English-proficient (LEP), that party may ask to waive interpreter services.

(2) The request must be in writing or through a qualified interpreter on the record.

(3) The administrative law judge must determine if the waiver has been knowingly and voluntarily made.

(4) The party may withdraw their waiver at any time before or during the hearing.

NEW SECTION

**WAC 182-526-0145 Interpreter requirements.** (1) Interpreters must:

(a) Use the interpretive mode that the parties, the person with hearing loss, the interpreter, and the administrative law judge (ALJ) consider the most accurate and effective;

(b) Interpret statements made by the parties and the ALJ;

(c) Not disclose information about the hearing without the written consent of the parties; and

(d) Not comment on the hearing or give legal advice.

(2) The ALJ must allow enough time for all interpretations to be made and understood.

(3) The ALJ may make a video recording of a hearing and use it as the official transcript for hearings involving a person with hearing loss.

NEW SECTION

**WAC 182-526-0150 Hearing decisions involving limited-English-proficient parties.** (1) When an interpreter is used at a hearing, the administrative law judge must explain that the decision is written in English and that the office of administrative hearings (OAH) will provide an interpreter for a sight translation of the decision at no cost to that party.

(2) OAH must provide the party needing sight translation services information about how to obtain those services. Information about how to access sight translation must be attached to the decision or order.

(3) OAH or the board of appeals must send a copy of a decision or order to an interpreter for use in sight translation.

NEW SECTION

**WAC 182-526-0155 Appellant's representation in the hearing.** (1) The party that requested the hearing may be his or her own representative or have anyone represent them except employees of the health care authority (HCA), HCA's authorized agents, and employees of the department of social and health services (DSHS).

(2) The party's representative may be a friend, relative, community advocate, attorney, or paralegal.

(3) The party should inform the HCA hearing representative and the office of administrative hearings of his or her representative's name, address, and telephone number.

(4) Although health care authority (HCA) employees, HCA authorized agents, and other DSHS employees cannot represent other parties to the hearing, they may:

- (a) Act as a witness;
- (b) Provide referrals to community legal resources;
- (c) Assist the party to obtain nonconfidential information; or
- (d) Inform the party about or provide copies of relevant laws or rules.

#### NEW SECTION

**WAC 182-526-0156 Legal assistance in the hearing process.** (1) The health care authority (HCA), HCA's authorized agents, and the office of administrative hearings (OAH) will not pay for an attorney for another party.

(2) If a party wants an attorney to represent him or her and cannot afford one, community resources may be available to assist that party. These legal services may be free or available at a reduced cost. HCA, HCA's authorized agent, or OAH can provide information about who to contact for legal assistance.

(3) Information about legal assistance can also be found at [www.oah.wa.gov](http://www.oah.wa.gov).

#### NEW SECTION

**WAC 182-526-0157 Requirements to appear and represent a party in the administrative hearing process.**

(1) All parties should provide the administrative law judge (ALJ) and all other parties with their name, address, and telephone number.

(2) If a party is represented by another person, the representative should also provide the ALJ and other parties with the representative's name, address, and telephone number.

(3) The ALJ may require the representative of the party to file a written notice of appearance or provide documentation authorizing the representative to appear on behalf of the party. In cases involving confidential information, the representative must file a legally sufficient signed written consent or release of information document with the health care authority (HCA) or HCA's authorized agent.

(4) If the party who requested the hearing is represented by an attorney admitted to practice in Washington state, that attorney must file a written notice of appearance, and must file a notice of withdrawal upon withdrawal of representation.

(5) If any party or the party's representative files a written notice of appearance, the ALJ should call the telephone number on the notice of appearance if the party does not appear by calling in before any hearing or prehearing conference.

#### NEW SECTION

**WAC 182-526-0170 Representation of the health care authority in the hearing process.** The health care authority (HCA) hearing representative represents HCA during the hearing. The HCA hearing representative may or may not be an attorney.

#### NEW SECTION

**WAC 182-526-0175 Prehearing meetings.** (1) A prehearing meeting is an informal meeting with a health care authority (HCA) hearing representative that may be held before any prehearing conference or hearing.

(2) The HCA hearing representative may contact the party who requested the hearing before the scheduled hearing to arrange a prehearing meeting. Any party may also contact the HCA hearing representative to request a prehearing meeting.

(3) A prehearing meeting is voluntary. A party is not required to request one, and is not required to participate in one. If a party does not participate, it does not affect the party's right to a hearing.

(4) The prehearing meeting includes the party who requested the hearing and/or its representative, the HCA hearing representative, and any other party. An administrative law judge (ALJ) does not attend a prehearing meeting.

(5) The prehearing meeting gives the parties an opportunity to:

- (a) Clarify issues;
- (b) Exchange documents and witness statements;
- (c) Resolve issues through agreement or withdrawal; and
- (d) Ask questions about the hearing process and the laws and rules that apply.

(6) During a prehearing meeting:

- (a) The HCA hearing representative may:
  - (i) Explain the role of the HCA hearing representative in the hearing process;
  - (ii) Explain how a hearing is conducted and the relevant laws and rules that apply;
  - (iii) Explain the right to representation during the hearing;
  - (iv) Respond to questions about the hearing process;
  - (v) Identify accommodation and safety issues;
  - (vi) Distribute copies of the documents to be presented during the hearing;
  - (vii) Provide, upon request, copies of relevant laws and rules;
  - (viii) Identify additional documents or evidence a party may want or be required to present during the hearing;
  - (ix) Provide information about how to obtain relevant documents;
  - (x) Clarify the issues; and
  - (xi) Attempt to settle the dispute, if possible.
- (b) Parties should explain their position and provide documents that relate to the case. Parties may consult legal resources.

(c) Parties may enter into written agreements or stipulations, including agreements that settle the dispute.

(7) A prehearing meeting may be held or information exchanged:

- (a) In person;
- (b) By telephone conference call;
- (c) Through correspondence; or
- (d) Any combination of the above that is agreeable to the parties.

(8) If a prehearing conference is required by HCA or its program rules, a prehearing meeting may not be an available option.

#### NEW SECTION

**WAC 182-526-0185 Settlement agreements.** (1) If the parties resolve the dispute during the prehearing meeting and put it in writing or present the agreement to an administrative law judge (ALJ), the agreement may be legally enforceable.

(2) Any agreements or stipulations made at the prehearing meeting must be presented to an ALJ before or during the hearing, if the parties want the ALJ to consider the agreement.

(3) If all of the issues are not resolved in the prehearing meeting, the parties may request a prehearing conference before an ALJ or go to the scheduled hearing. The ALJ may also order a prehearing conference.

(4) The party that requested the hearing may withdraw the hearing request at any time if the HCA hearing representative agrees to some action that resolves the dispute, or for any other reason. If the party withdraws their hearing request, the hearing is not held and the ALJ enters and serves a written order of dismissal.

#### NEW SECTION

**WAC 182-526-0195 Prehearing conferences.** (1) A prehearing conference is a formal proceeding conducted on the record by an administrative law judge (ALJ) to address issues and prepare for a hearing.

(a) The ALJ must record the prehearing conference using audio recording equipment (such as a digital recorder or tape recorder).

(b) An ALJ may conduct the prehearing conference in person, by telephone conference call, or in any other manner acceptable to the parties.

(2) All parties must attend and participate in the prehearing conference. If the party who requested the hearing does not attend and participate in the prehearing conference, the administrative law judge may enter an order of default and an order dismissing the hearing.

(3) The administrative law judge (ALJ) may require a prehearing conference. Any party may request a prehearing conference.

(4) The ALJ must grant the first request for a prehearing conference if it is filed with the office of administrative hearings (OAH) at least seven business days before the scheduled hearing date.

(5) When the ALJ grants a party's request for a prehearing conference, OAH must continue the previously scheduled hearing when necessary to comply with subsection (10) of this section.

(6) The ALJ may grant additional requests for prehearing conferences.

(7) The OAH must schedule prehearing conferences for all cases which concern:

- (a) The department's division of residential care services under Title XIX of the federal Social Security Act; and
- (b) Provider and vendor overpayment hearings.

(8) During a prehearing conference the parties and the administrative law judge may:

(a) Simplify or clarify the issues to be decided during the hearing;

(b) Agree to the date, time, and place of the hearing;

(c) Identify accommodation and safety issues;

(d) Agree to postpone the hearing;

(e) Allow the parties to make changes in their own documents, including the notice or the hearing request;

(f) Agree to facts and documents to be entered during the hearing;

(g) Set a deadline to exchange names and phone numbers of witnesses and documents before the hearing;

(h) Schedule additional prehearing conferences;

(i) Resolve the dispute;

(j) Consider granting a stay if authorized by law or program rule; or

(k) Rule on any procedural issues and substantive motions raised by any party.

(9) After the prehearing conference ends, the administrative law judge (ALJ) must enter a written order describing:

(a) The actions taken;

(b) Any changes to the documents;

(c) Any agreements reached; and

(d) Any ruling of the ALJ.

(10) The ALJ must serve the prehearing order to the parties at least fourteen calendar days before the scheduled hearing.

(11) A party may object to the prehearing order by notifying the ALJ in writing within ten days after the mailing date of the order. The ALJ must issue a ruling on the objection.

(12) If no objection is made to the prehearing order, the order determines how the hearing is conducted, including whether the hearing will be in person or held by telephone conference or other means, unless the ALJ changes the order for good cause.

(13) The ALJ may take further appropriate actions to address other concerns.

#### NEW SECTION

**WAC 182-526-0200 Enrollee appeals of a managed care organization action.** (1) The hearing process described in this chapter applies to enrollee appeals of a health care authority (HCA)-contracted managed care organization (MCO) action. Where a conflict exists, the requirements in this section prevail.

(2) An MCO enrollee must exhaust all levels of resolution and appeal within the MCO's grievance system prior to requesting a hearing with HCA. See WAC 182-538-110.

(3) If an MCO enrollee does not agree with the MCO's resolution of the enrollee's appeal, the enrollee may file a request for a hearing within ninety calendar days of the date of receipt of the MCO's notice of resolution of the appeal.

(a) An enrollee may request continuation of services pending the outcome of a hearing related to the termination, suspension, or reduction of a previously authorized service.

(b) To receive continuation of services pending the outcome of the hearing, the enrollee must file the hearing request and request to continue services within ten days of the date of the MCO's notice of the resolution of the appeal. See WAC 182-538-110 for additional requirements related to continuation of services.

(4) The entire appeal and hearing process, including the MCO appeal process, must be completed within ninety calendar days of the date the MCO enrollee filed the appeal with the MCO, not including the number of days the enrollee took to subsequently file for a hearing.

(5) Expedited hearing process:

(a) The office of administrative hearings (OAH) must establish and maintain an expedited hearing process when the enrollee or the enrollee's representative requests an expedited hearing and OAH determines that the time taken for a standard resolution of the claim could seriously jeopardize the enrollee's life or health and ability to attain, maintain, or regain maximum function.

(b) When approving an expedited hearing, OAH must issue a hearing decision as expeditiously as the enrollee's health condition requires, but not later than three business days after receiving the case file and information from the MCO regarding the action and MCO appeal.

(c) When denying an expedited hearing, OAH must give prompt oral notice to the enrollee followed by written notice within two calendar days of the request and change the hearing to the standard time frame.

(6) Parties to the hearing include HCA, the MCO, and the enrollee.

(7) Any party that disagrees with the initial order may request a review by an HCA review judge in accordance with WAC 182-526-0560 through 182-526-0600.

(8) If an enrollee disagrees with the initial order, the enrollee may request review in accordance with subsection (7) of this section, or an independent review (IR) by an independent review organization (IRO) in accordance with RCW 48.43.535. The enrollee must request the IR within twenty-one calendar days of the date of mailing the initial order. A timely submitted request for an IR stays any review requested pursuant to subsection (7) of this section.

(9) Any party that disagrees with the IR decision may request a review by an HCA review judge in accordance with WAC 182-526-0560 through 182-526-0600 within twenty-one calendar days of the date of mailing of the IR decision.

(10) When an initial order or an IR decision is appealed to an HCA review judge, the review judge issues the final order.

#### NEW SECTION

**WAC 182-526-0215 Authority of the administrative law judge when conducting a hearing.** (1) The administrative law judge (ALJ) must hear and decide the issues de novo (anew) based on what is presented during the hearing and admitted into the record.

(2) As needed, the ALJ may:

- (a) Determine the order for presenting evidence;
  - (b) Issue subpoenas or orders directing witnesses to appear or bring documents;
  - (c) Rule on objections, motions, and procedural matters;
  - (d) Rule on an offer of proof made to admit evidence;
  - (e) Admit relevant evidence;
  - (f) Impartially question witnesses to develop the record;
  - (g) Call additional witnesses and request exhibits to complete the record;
  - (h) Give the parties an opportunity to cross-examine witnesses or present more evidence against the witnesses or exhibits;
  - (i) Keep order during the hearing;
  - (j) Allow or require oral or written argument and set the deadlines for the parties to submit argument or evidence;
  - (k) Permit others to attend, photograph, or electronically record hearings, but may place conditions to preserve confidentiality or prevent disruption;
  - (l) Allow a party to waive rights given by chapters 34.05 RCW or 182-526 WAC, unless another law prevents it;
  - (m) Decide whether a party has a right to a hearing;
  - (n) Issue protective orders;
  - (o) Consider granting a stay if authorized by law or HCA rule; and
  - (p) Take any other action necessary and authorized under these or other rules.
- (3) The ALJ administers oaths or affirmations and takes testimony.
- (4) The ALJ enters initial orders. Initial orders may become final orders pursuant to WAC 182-526-0525.

#### NEW SECTION

**WAC 182-526-0216 The authority of the administrative law judge and the review judge is limited.** (1) The authority of the administrative law judge and the review judge is limited to those powers granted by statute or rule. The ALJ and the review judge do not have any inherent or common law powers.

(2) Neither an administrative law judge nor a review judge may decide that a rule is invalid or unenforceable. Only a court may decide this issue.

(3) If the validity of a rule is raised during the hearing, the ALJ or review judge may allow only argument for court review.

#### NEW SECTION

**WAC 182-526-0218 The authority of a review judge when conducting a hearing as a presiding officer.** (1) A review judge has the same authority and responsibilities as an administrative law judge, as described in WAC 182-526-0215, when conducting a hearing.

(2) A review judge conducts the hearing and enters the final order in cases where a contractor for the delivery of nursing facility services requests an administrative hearing under WAC 388-96-904(5).

(3) The review judge enters final HCA decisions on all cases in the form of a final order.

(4) Following a review judge's final order:

(a) Any party may request reconsideration of the final order as provided in this chapter and WAC 388-96-904(12); and

(b) The party who requested the hearing, but not the health care authority or any of its authorized agents, may file a petition for judicial review as provided in this chapter.

#### NEW SECTION

**WAC 182-526-0220 Rules and laws an administrative law judge and review judge must apply when conducting a hearing and making a decision.** (1) Administrative law judges (ALJs) and review judges must first apply the applicable program rules adopted in the Washington Administrative Code (WAC).

(2) If no program rule applies, the ALJ and review judge must decide the issue according to the best legal authority and reasoning available, including federal and Washington state constitutions, statutes, regulations, and court decisions.

(3) When applying program rules regarding the substantive rights and responsibilities of the parties (such as eligibility for services, benefits, or a license), the ALJ and review judge must apply the program rules in effect on the date of the health care authority (HCA) action, unless otherwise required by other rule or law. If HCA amends its notice of action, the ALJ or review judge must apply the rules in effect on the date the action was taken, unless otherwise required by other rule or law.

(4) When applying procedural rules, the ALJ and review judge must apply the rules that are in effect on the date the procedure is followed.

(5) Program rules determine the amount of time HCA or HCA's authorized agent has to process an application for services, benefits, or a license.

(6) The ALJ and review judge must apply the rules in this chapter beginning on the date each rule is effective.

#### NEW SECTION

**WAC 182-526-0221 Using the index of significant decisions.** (1) A final order may be relied on, used, or cited as precedent by a party if the final order has been indexed in the index of significant decisions.

(2) The index of significant decisions is available to the public at <http://www.hca.wa.gov/appeals>. For information on how to obtain a copy of the index, contact the health care authority (HCA) hearing representative.

#### NEW SECTION

**WAC 182-526-0230 Assigning an administrative law judge to a hearing.** The office of administrative hearings (OAH) assigns an administrative law judge (ALJ) at least five business days before the hearing. A party may ask which ALJ is assigned to the hearing by calling or writing the OAH field office listed on the notice of hearing. If requested by a party, the OAH must send the name of the assigned ALJ to the party by e-mail or in writing at least five business days before the party's scheduled hearing date.

#### NEW SECTION

**WAC 182-526-0235 Requesting a different judge.** A party may file a motion of prejudice against an administrative law judge (ALJ) under RCW 34.12.050. A party may also request that an ALJ or review judge be disqualified under RCW 34.05.425.

#### NEW SECTION

**WAC 182-526-0240 Filing a motion of prejudice.** (1) A party requesting a different administrative law judge (ALJ) may do so by filing a written motion of prejudice with the office of administrative hearings (OAH) before the ALJ rules on a discretionary issue in the case, admits evidence, or takes testimony. A motion of prejudice must include an affidavit or statement that a party does not believe that the ALJ can hear the case fairly.

(2) Rulings that are not considered discretionary rulings for purposes of this section include, but are not limited to those:

- (a) Granting or denying a request for a continuance; and
- (b) Granting or denying a request for a prehearing conference.

(3) A party must send the written motion of prejudice to the chief ALJ at the OAH headquarters identified in WAC 182-526-0025(1) and must send a copy to the OAH field office where the ALJ is assigned.

(4) A party may make an oral motion of prejudice at the beginning of the hearing before the ALJ rules on a discretionary issue in the case, admits evidence, or takes testimony if:

- (a) The OAH did not assign an ALJ at least five business days before the date of the hearing; or
- (b) The OAH changed the assigned ALJ within five business days of the date of the hearing.

(5) The first request by each party for a different ALJ is automatically granted. The chief ALJ or a designee grants or denies any later requests.

#### NEW SECTION

**WAC 182-526-0245 Disqualifying an administrative law judge or review judge.** (1) An administrative law judge (ALJ) or review judge may be disqualified for bias, prejudice, or conflict of interest, or if one of the parties or a party's representative has an ex parte contact with the ALJ or review judge.

(2) Ex parte contact means a written or oral communication with the ALJ or review judge about something related to the hearing when the other parties are not present. Procedural questions are not considered an ex parte contact. Examples of procedural questions include clarifying the hearing date, time, or location or asking for directions to the hearing location.

(3) To ask to disqualify an ALJ or review judge, a party must file a written petition for disqualification. A petition for disqualification is a written explanation to request assignment of a different ALJ or review judge. A party must promptly make the petition upon discovery of possible bias, conflict of interest, or an ex parte contact.

(4) A party must deliver the petition to the ALJ or review judge assigned to the case. That ALJ or review judge must decide whether to grant or deny the petition and must state the facts and reasons for the decision.

#### NEW SECTION

**WAC 182-526-0250 Time requirements for notices issued by the office of administrative hearings.** (1) The OAH must serve a notice of hearing to all parties and their representatives at least fourteen calendar days before the hearing date.

(2) If the OAH schedules a prehearing conference, the OAH must serve a notice of prehearing conference to the parties and their representatives at least seven business days before the date of the prehearing conference except:

(a) The OAH and/or an administrative law judge (ALJ) may change a scheduled hearing into a prehearing conference and provide less than seven business days notice of the prehearing conference; and

(b) The OAH may give less than seven business days notice if the only purpose of the prehearing conference is to consider whether there is good cause to grant a continuance.

(3) The OAH must reschedule the hearing if necessary to comply with the notice requirements in this section.

#### NEW SECTION

**WAC 182-526-0255 Notice of hearing.** (1)(a) A notice of hearing is a written notice that must include the:

(i) Names of all parties who receive the notice and, if known, the names and addresses of their representatives;

(ii) Name, mailing address, and telephone number of the administrative law judge (ALJ), if known;

(iii) Date, time, place, and nature of the hearing;

(iv) Legal authority and jurisdiction for the hearing;

(v) Date of the hearing request; and

(vi) Statement that failure to attend and participate in a prehearing conference or a hearing, may result in the loss of the right to a hearing. Then the ALJ may send:

(A) An order of default; and/or

(B) An order dismissing the hearing.

(b) If the party who requested a hearing needs a qualified interpreter because they or any of their witnesses are persons with limited-English-proficiency, OAH will provide an interpreter at no cost to that party.

(c) If the hearing is to be held by telephone or in person, and how to request a change in the way it is held.

(2) In addition to the information provided in subsection (1) of this section, OAH informs the party who requested the hearing:

(a) How to indicate any special needs for the party or their witnesses, including the need for an interpreter in a primary language or for sensory impairments.

(b) How to contact OAH if a party has a safety concern.

#### NEW SECTION

**WAC 182-526-0260 Amending the health care authority or managed care organization notice.** (1) The administrative law judge (ALJ) must allow the health care

authority (HCA), HCA's authorized agent, or a managed care organization (MCO) to amend (change) the notice of an action before or during the hearing to match the evidence and facts.

(2) HCA, HCA's authorized agent, or MCO must put the change in writing and deliver a copy to the ALJ and all parties.

(3) The ALJ must offer to continue (postpone) the hearing to give the parties more time to prepare or present evidence or argument if there is a substantive change from the earlier notice.

(4) If the ALJ grants a continuance, the office of administrative hearings must serve a new hearing notice at least fourteen calendar days before the hearing date.

#### NEW SECTION

**WAC 182-526-0265 Amending hearing requests.** (1) The administrative law judge (ALJ) may allow the party that requested the hearing to amend its hearing request before or during the hearing.

(2) The ALJ must offer to continue (postpone) the hearing to give the other parties more time to prepare or present evidence or argument if there is a substantive change in the hearing request.

#### NEW SECTION

**WAC 182-526-0270 Mailing address changes.** (1) The party who requested the hearing must tell the health care authority (HCA) hearing representative and the office of administrative hearings (OAH) as soon as possible, when its mailing address changes.

(2) If that party does not notify the HCA hearing representative and OAH of a change in its mailing address and the OAH continues to send notices and other important papers to the last known mailing address, the administrative law judge (ALJ) may find that the party received the documents.

#### NEW SECTION

**WAC 182-526-0280 Requesting a continuance.** (1) Any party may request a continuance either orally or in writing.

(2) Before contacting the administrative law judge (ALJ) to request a continuance, the party seeking a continuance must contact the other parties, if possible, to find out if they will agree to a continuance.

(3) The party making the request for a continuance must let the ALJ know whether the other parties agreed to the continuance. If the parties agree to a continuance, the ALJ must grant it unless the ALJ holds a prehearing conference and finds that good cause for a continuance does not exist.

(4) If the parties do not agree to a continuance, the ALJ must schedule a prehearing conference in accordance with the requirements of WAC 182-526-0250 to decide whether there is good cause to grant the continuance.

(5) If the ALJ grants a continuance, the OAH must serve a new hearing notice at least fourteen calendar days before the new hearing date unless the parties agree to a shorter time period.



(6) If the ALJ denies the continuance request after a prehearing conference is held pursuant to subsections (3) or (4) of this section, the ALJ may proceed with the hearing on the date the hearing is scheduled and must issue a written order setting forth the basis for denying the continuance request.

#### NEW SECTION

**WAC 182-526-0285 Orders of dismissal.** (1) An order of dismissal is an order from the administrative law judge (ALJ) ending the hearing process. The order is entered because the party who requested the hearing withdrew the request, or the ALJ entered an order of default because the party who requested the hearing failed to attend or refused to participate in the hearing (which includes all prehearing conferences).

(2) The order of dismissal becomes a final order if no party files a request to vacate the order within twenty-one days after the date the ALJ serves the order of dismissal. A party may request a vacate of the order of dismissal according to WAC 182-526-0290.

(3) If the hearing is dismissed because the party who requested the hearing was defaulted because that party did not attend or refused to participate in the hearing, the health care authority or managed care organization action stands unless the hearing is reinstated after a vacate of the order of dismissal under WAC 182-526-0290.

(4) If the hearing is dismissed due to a written agreement between all the parties, the parties must follow the agreement.

#### NEW SECTION

**WAC 182-526-0290 Reinstating a hearing after an order of dismissal.** (1) If the administrative law judge (ALJ) enters and serves an order dismissing the hearing, the party that originally requested the hearing may file a request to vacate (set aside) the order of dismissal. Upon receipt of a request to vacate an order of dismissal, OAH will schedule and serve notice of a prehearing conference. At the prehearing conference, the party asking that the order of dismissal be vacated must show good cause according to WAC 182-526-0020 for an order of dismissal to be vacated and the hearing to be reinstated.

(2) The request to vacate an order of dismissal must be filed with the office of administrative hearings (OAH) or the board of appeals (BOA). The party requesting that an order of dismissal be vacated should specify in the request why the order of dismissal should be vacated. BOA forwards any request received to OAH to schedule a prehearing conference on the request to vacate.

(3) The request to vacate an order of dismissal must be filed with the office of administrative hearings (OAH) or the board of appeals (BOA) within twenty-one calendar days after the date the order of dismissal was entered and served to the parties. If no request is received within that deadline, the dismissal order becomes a final order.

(a) The party seeking to vacate the order of dismissal may file a late request to vacate the order of dismissal for up to one year after the ALJ entered and served the order to the

parties but must show good cause for the late request to be accepted and for the dismissal to be vacated.

(b) If the party files a request to vacate the order of dismissal more than one year after the order was served, the administrative law judge or review judge may vacate the order of dismissal if the health care authority hearing representative and all parties agree to waive (excuse) the deadline.

(4) OAH serves all parties a notice of the prehearing conference on the request to vacate the order of dismissal in accordance with WAC 182-526-0250. At the prehearing conference, the ALJ will receive evidence and argument from the parties on whether the order of dismissal should be vacated for good cause.

(5) If the ALJ finds good cause for the order of dismissal to be vacated, the ALJ must enter and serve a written order to the parties setting forth the findings and reinstate the hearing. This means the party who originally requested the hearing has another opportunity for a hearing on the initial request for hearing.

(6) If the order of dismissal is vacated, the ALJ will conduct a hearing at which the parties may present argument and evidence about the original request for hearing. The hearing may occur immediately following the prehearing conference on the request to vacate if agreed to by the parties and the ALJ or at a later hearing date scheduled by OAH in accordance with WAC 182-526-0250.

#### NEW SECTION

**WAC 182-526-0310 Requesting a stay of the health care authority action.** A party may request that an administrative law judge (ALJ) or review judge stay (stop) a health care authority action until there is a decision entered by the ALJ or review judge. The ALJ or review judge decides whether to grant or deny the stay and enters a written order.

#### NEW SECTION

**WAC 182-526-0315 Requiring witnesses to testify or provide documents.** A party may require witnesses to testify or provide documents by issuing a subpoena. A subpoena is an order to appear at a certain time and place to give testimony, or to provide books, documents, or other items.

#### NEW SECTION

**WAC 182-526-0320 Subpoenas.** (1) Administrative law judges (ALJs), the health care authority hearing representative, and attorneys for the parties may prepare subpoenas. If an attorney does not represent a party, that party may ask the ALJ to prepare a subpoena on its behalf. The ALJ may schedule a prehearing conference to decide whether to issue a subpoena.

(2) An ALJ may deny a request for a subpoena. For example, an ALJ may deny a request for a subpoena when the ALJ determines that a witness has no actual knowledge regarding the facts or that the documents are not relevant.

(3) There is no cost to prepare a subpoena, but a party may have to pay for:

- (a) Serving a subpoena;
- (b) Complying with a subpoena; and

(c) Witness fees according to RCW 34.05.446(7).

(4) Any person who is at least eighteen years old and not a party to the hearing may serve a subpoena.

(5) Service of a subpoena is complete when the server:

(a) Gives the witness a copy of the subpoena; or

(b) Leaves a copy at the residence of the witness with a person over the age of eighteen.

(6) To prove that a subpoena was served on a witness, the person serving the subpoena must sign a written, dated statement including:

(a) Who was served with the subpoena;

(b) When the subpoena was served;

(c) Where the subpoena was served; and

(d) The name, age, and address of the person who served the subpoena.

(7) A party may request that an administrative law judge (ALJ) quash (set aside) or change the subpoena request at any time before the deadline given in the subpoena.

(8) An ALJ may set aside or change a subpoena if it is unreasonable.

(9) Witnesses with safety or accommodation concerns should contact the office of administrative hearings (OAH).

#### NEW SECTION

**WAC 182-526-0340 Hearing location.** (1) Hearings may be held in-person or as a telephonic hearing.

(2) A telephonic hearing is where all parties appear by telephone.

(3) An in-person hearing is where the party that had requested the hearing appears face-to-face with the administrative law judge (ALJ) and the other parties appear either in person or by telephone.

(4) Whether a hearing is held in-person or telephonically, the parties have the right to see all documents, hear all testimony and question all witnesses.

(5) If a hearing is originally scheduled as an in-person hearing, the party that requested the hearing may ask that the ALJ change it to a telephonic hearing. Once a telephonic hearing begins, the ALJ may stop, reschedule, and change the hearing to an in-person hearing if any party makes such a request.

#### NEW SECTION

**WAC 182-526-0345 Administrative law judge present at the hearing.** (1) If the hearing is scheduled as an in-person hearing, an administrative law judge (ALJ) is physically present.

(2) If the hearing is scheduled as a telephonic hearing, an ALJ is present by telephone.

#### NEW SECTION

**WAC 182-526-0350 Recording the hearing.** The administrative law judge must record the entire hearing using audio recording equipment (such as a digital recorder or a tape recorder).

#### NEW SECTION

**WAC 182-526-0355 Persons who may attend the hearing.** (1) All parties and their representatives may attend the hearing.

(2) Witnesses may be excluded from the hearing if the administrative law judge (ALJ) finds good cause.

(3) The ALJ may also exclude other persons from all or part of the hearing.

#### NEW SECTION

**WAC 182-526-0360 Changing how a hearing is held or how a witness appears at a hearing.** (1) For cases in which the party that requested a hearing is an applicant or recipient of a medical services program established under chapter 74.09 RCW, the hearing shall be conducted according to RCW 74.09.741 (5)(c). An applicant or recipient may agree to have one or more prehearing conferences conducted telephonically without waiving the right to have any subsequent prehearing conference or other hearings held in-person.

(2) Parties to the hearing have the right to request that:

(a) A hearing format be changed from an in-person hearing to a telephonic hearing or from a telephonic hearing to an in-person hearing; or

(b) A witness may be allowed to appear in-person or telephonically. The office of administrative hearings (OAH) must advise the party of the right to request a change in how a witness appears.

(3) A party must show a compelling reason to change the way a witness appears (in-person or by telephone). Some examples of compelling reasons are:

(a) A party does not speak or understand English well.

(b) A party wants to present a significant number of documents during the hearing.

(c) A party does not believe that one of the witnesses or another party is credible, and wants the administrative law judge (ALJ) to have the opportunity to see the testimony.

(d) A party has a disability or communication barrier that affects its ability to present its case.

(e) A party believes that the personal safety of someone involved in the hearing process is at risk.

(4) A compelling reason to change the way a witness appears at a hearing can be overcome by a more compelling reason not to change how a witness appears for a hearing.

(5) If a party wants to change the hearing or change how their witnesses or other parties appear, the party must contact the office of administrative hearings (OAH) to request the change.

(6) The administrative law judge (ALJ) may schedule a prehearing conference to determine if the request should be granted.

(7) If the ALJ grants the request, the ALJ reschedules the hearing or changes how the witness or party appears.

(8) If the ALJ denies the request, the ALJ must issue a written order that includes findings of fact supporting why the request was denied.

NEW SECTION

**WAC 182-526-0370 Submitting documents for a telephonic hearing.** (1) When a hearing is conducted by telephone, an administrative law judge (ALJ) may order the parties to file and serve the hearing documents at least five days before the hearing, so all parties have an opportunity to view them during the hearing.

(2) The health care authority hearing representative may be able to help a party copy and file their documents with the OAH and send them to any other party.

NEW SECTION

**WAC 182-526-0375 Summary of the hearing process.** At the hearing:

- (1) The administrative law judge (ALJ):
  - (a) Explains the hearing rights of the parties;
  - (b) Marks and admits or rejects exhibits;
  - (c) Ensures that a record is made;
  - (d) Explains that a decision is mailed after the hearing;
  - (e) Notifies the parties of appeal rights;
  - (f) May keep the record open for a time after the hearing if needed to receive more evidence or argument; and
  - (g) May take actions as authorized according to WAC 182-526-0215.
- (2) The parties may:
  - (a) Make opening statements to explain the issues;
  - (b) Offer evidence to prove their positions, including oral or written statements of witnesses;
  - (c) Question the witnesses presented by the other parties; and
  - (d) Give closing arguments about what the evidence shows and what laws apply.
- (3) At the end of the hearing the record will be closed unless the ALJ allows more time to file additional evidence. See WAC 182-526-0390.

NEW SECTION

**WAC 182-526-0380 Group hearing requests and withdrawals.** (1) A group hearing may be held when two or more parties request a hearing about similar issues.

(2) Hearings may be combined at the request of the parties or the administrative law judge.

(3) All parties participating in a group hearing may have their own representative present.

(4) A party may withdraw from a group hearing by asking the administrative law judge (ALJ) for a separate hearing.

(5) If a party asks to withdraw from a group hearing before the ALJ makes a discretionary ruling or the hearing begins, the ALJ must give the party a separate hearing.

(6) If a party later shows good cause, the ALJ may give the party a separate hearing at any time during the hearing process.

(7) The ALJ must grant a party's request to withdraw from a group hearing when participation in the group hearing could require the release of confidential or protected health care information and the party does not consent to the release of such information.

NEW SECTION

**WAC 182-526-0387 Requesting that a hearing be consolidated or severed when multiple agencies are parties to the proceeding.** (1) The following requirements apply only to hearings in which an applicant or recipient of medical services programs set forth in chapter 74.09 RCW, seeks review of decisions made by more than one agency. For example: A medical services program recipient appeals a termination of medical assistance by the health care authority and in the same request for hearing the recipient appeals a termination of cash assistance issued by the department of social and health services.

(2) When the applicant or recipient of a medical services program files a single request for hearing seeking review of decisions by more than one agency, this review shall be conducted initially in one hearing. The administrative law judge (ALJ) may sever the proceeding into multiple hearings on the motion of any of the parties, when:

- (a) All parties consent to the severance; or
- (b) Any party requests severance without another party's consent, and the ALJ finds there is good cause for severing the hearing and that the proposed severance is not likely to prejudice the rights of the applicant or recipient in accordance with RCW 74.09.741(5).

(3) If there are multiple hearings involving common issues or parties where there is one appellant and both the health care authority and the department are parties, upon motion of any party or upon the ALJ's motion, the ALJ may consolidate the hearings if the ALJ finds that the consolidation is not likely to prejudice the rights of the applicant or recipient who is a party to any of the consolidated hearings in accordance with RCW 74.09.741(5).

(4) If the ALJ grants the motion to sever the hearing into multiple hearings or consolidate multiple hearings into a single hearing, the ALJ will enter and serve an order and a new notice of hearing to the appropriate parties in accordance with WAC 182-526-0250, unless service of notice is waived by the parties.

(5) Petitions for judicial review must be served on all agencies involved in the hearing.

NEW SECTION

**WAC 182-526-0390 Evidence.** (1) Evidence includes documents, objects, and testimony of witnesses that parties give during the hearing to help prove their positions.

(2) Evidence may be all or parts of original documents or copies of the originals.

(3) Parties may offer statements signed by a witness under oath or affirmation as evidence, if the witness cannot appear.

(4) Testimony subject to cross examination by the other parties may be given more importance by the administrative law judge (ALJ).

(5) The parties may bring evidence to any prehearing meeting, prehearing conference, or hearing, or may file evidence before these events with OAH.

(6) The ALJ may set a deadline before the hearing for the parties to file proposed exhibits and the names of witnesses.

If the parties miss the deadline, the ALJ may refuse to admit the evidence unless the parties show:

- (a) They have good cause for missing the deadline; or
  - (b) That the other parties agree.
- (7) If the ALJ gives the parties more time to submit evidence, the parties may file it after the hearing. The ALJ may allow more time for the other parties to respond and object to the evidence.
- (8) Parties may bring any documents and witnesses to the hearing to support their position. However, the following provisions apply:
- (a) The other parties may object to the evidence and question the witnesses;
  - (b) The ALJ determines whether the evidence is admitted and what importance to give it;
  - (c) If the ALJ does not admit the evidence, the parties may make an offer of proof to show why the ALJ should admit it;
  - (d) To make an offer of proof, a party presents evidence and argument on the record to show why the ALJ should consider the evidence; and
  - (e) The offer of proof preserves the argument for appeal.
- (9) The ALJ may only consider admitted evidence and matters officially noticed in the proceeding (judicial notice) to decide the case.
- (10) Admission of evidence is based upon the reasonable person standard. This standard means evidence that a reasonable person would rely on in making a decision.
- (11) The ALJ may admit and consider hearsay evidence in accordance with RCW 34.05.452.
- (12) The ALJ may reject evidence if it:
- (a) Is not relevant; or
  - (b) Repeats evidence already admitted.
- (13) The ALJ must reject evidence if required by law.
- (14) The ALJ decides:
- (a) What evidence is more credible if evidence conflicts; and
  - (b) The importance given to the evidence.
- (15) The ALJ uses the Washington rules of evidence as guidelines when those rules do not conflict with the rules of this chapter or the Washington Administrative Procedure Act, chapter 34.05 RCW.

#### NEW SECTION

**WAC 182-526-0405 Stipulations.** (1) A stipulation is an agreement among two or more parties that certain facts or evidence is correct or authentic.

(2) If an administrative law judge (ALJ) accepts a stipulation, the ALJ must enter it into the record.

(3) A stipulation may be made before or during the hearing.

(4) A party may change or reject a stipulation after it has been made.

(5) To change or reject a stipulation, a party must show the administrative law judge that:

- (a) The party did not intend to make the stipulation or was mistaken when making it; and
- (b) Changing or rejecting the stipulation does not harm the other parties.

#### NEW SECTION

**WAC 182-526-0415 Exhibits.** (1) Proposed exhibits.

(a) Proposed exhibits are documents or other objects that a party wants the administrative law judge (ALJ) to consider when reaching a decision.

(b) After the document or object is accepted by the ALJ, it is admitted and becomes an exhibit.

(2) Marking and numbering proposed exhibits and providing copies.

(a) All parties should mark and number their proposed exhibits before the hearing.

(b) All parties should send (exchange) their exhibits in advance of the hearing.

(c) Parties should bring to the hearing enough copies of their proposed exhibits for all parties if those exhibits were not exchanged prior to the hearing.

(d) If the party who requested the hearing cannot afford to provide copies of its exhibits for all parties, the requesting party must make its proposed exhibits available for copying. The ALJ may require proof that the requesting party is unable to afford copies.

(3) Admitting proposed exhibits into the record.

(a) The administrative law judge (ALJ) decides whether to admit a proposed exhibit into the record and also determines the importance of the evidence.

(b) The ALJ admits proposed exhibits into the record by marking, listing, identifying, and admitting the proposed exhibits.

(c) The ALJ may also exclude proposed exhibits from the record.

(d) The ALJ must make rulings on the record to admit or exclude exhibits.

(4) Disagreeing with an exhibit.

(a) A party may object to the authenticity or admissibility of any exhibit, or offer argument about how much importance the ALJ should give the exhibit.

(b) Even if a party agrees that a proposed exhibit is a true and authentic copy of a document, the agreement does not mean that a party agrees with:

(i) Everything in the exhibit or agrees that it should apply to the hearing;

(ii) What the exhibit says; or

(iii) How the administrative law judge should use the exhibit to make a decision.

(5) The following rules apply to filing proposed exhibits with OAH and sending them to the other parties for a telephone conference hearing:

(a) Parties should file their proposed exhibits with OAH and send them to the other parties at least five days before the telephonic hearing. In some cases, the ALJ may require that the parties file and send them earlier.

(b) The health care authority hearing representative may help the party that had requested the hearing file copies of its proposed exhibits with OAH and send to the other parties if that party cannot afford to do so. The ALJ may require the party to provide proof that they are unable to afford to do so.

NEW SECTION

**WAC 182-526-0440 Judicial notice.** (1) The administrative law judge (ALJ) may consider and admit evidence by taking judicial notice.

(2) Judicial notice is evidence that includes facts or standards that are generally recognized and accepted by judges, government agencies, or national associations. For example, an administrative law judge may take judicial notice of a calendar, a building code, or a standard or practice.

(3) If a party requests judicial notice, or if the ALJ intends to take judicial notice, the ALJ may ask the party to provide a copy of the document that contains the information.

(4) If judicial notice has been requested, or if the ALJ intends to take judicial notice, the ALJ must tell the parties before or during the hearing.

(5) The ALJ must give the parties time to object to judicial notice evidence.

NEW SECTION

**WAC 182-526-0450 Witness.** (1) A witness may be:

(a) The party that requested the hearing or the health care authority (HCA) hearing representative; or

(b) Anyone the parties or the administrative law judge (ALJ) asks to be a witness.

(2) The ALJ decides who may testify as a witness.

(3) An expert witness may not be a former HCA employee, a former HCA authorized agent, or a former employee of the department in the proceeding against HCA or the department if that employee was actively involved in the HCA action while working for HCA or the department, unless the HCA hearing representative agrees.

(4) All witnesses:

(a) Must affirm or take an oath to testify truthfully during the hearing.

(b) May testify in person or by telephone.

(c) May request interpreters from OAH at no cost to the party.

(d) May be subpoenaed and ordered to appear according to WAC 182-526-0315.

(5) Cross-examining a witness.

(a) The parties have the right to cross-examine (question) each witness.

(b) If a party has a representative, only the representative, and not the party, may question the witness.

(c) The administrative law judge may also question witnesses.

(6) Witnesses may refuse to answer questions. However, if a witness refuses to answer a question, the administrative law judge may reject all of the related testimony of that witness.

NEW SECTION

**WAC 182-526-0480 Burden of proof.** (1) Burden of proof is a party's responsibility to:

(a) Provide evidence regarding disputed facts; and

(b) Persuade the administrative law judge (ALJ) that a position is correct.

(2) To persuade the ALJ, the party who has the burden of proof must provide the amount of evidence required by WAC 182-526-0485. The ALJ decides if a party has met the burden of proof.

NEW SECTION

**WAC 182-526-0485 Standard of proof.** Standard of proof refers to the amount of evidence needed to prove a party's position. Unless the rules or law states otherwise, the standard of proof in a hearing is a preponderance of the evidence. This standard means that it is more likely than not that something happened or exists.

NEW SECTION

**WAC 182-526-0495 Equitable estoppel.** (1) Equitable estoppel is a legal doctrine that may be used only as a defense to prevent the health care authority (HCA) from taking some action against a person or entity, such as collecting an overpayment. Equitable estoppel may not be used to require HCA to continue to provide something or to require HCA to take action contrary to a statute.

(2) There are five elements of equitable estoppel. The standard of proof is clear and convincing evidence. A party asserting the doctrine of equitable estoppel must prove all of the following five elements:

(a) HCA made a statement or took an action or failed to take an action, which is inconsistent with a later claim or position by HCA.

(b) The party reasonably relied on HCA's original statement, action or failure to act.

(c) The party will be injured to its detriment if HCA is allowed to contradict the original statement, action or failure to act.

(d) Equitable estoppel is needed to prevent a manifest injustice. Factors to be considered in determining whether a manifest injustice would occur include, but are not limited to, whether:

(i) The party cannot afford to repay the money to HCA;

(ii) The party gave HCA timely and accurate information when required;

(iii) The party did not know that HCA made a mistake;

(iv) The party is free from fault; and

(v) The overpayment was caused solely by an HCA mistake.

(e) The exercise of government functions is not impaired.

(3) If the ALJ concludes that the party has proven all of the elements of equitable estoppel in subsection (2) of this section with clear and convincing evidence, HCA is stopped or prevented from taking action or enforcing a claim against that party.

NEW SECTION

**WAC 182-526-0500 Hearing record.** (1) Before the record is closed, the administrative law judge may:

(a) Set another hearing date;

(b) Enter orders to address limited issues if needed before writing and sending a hearing decision to resolve all issues in the proceeding; or

(c) Give the parties more time to file exhibits or written argument.

(2) The record is closed:

(a) At the end of the hearing if the administrative law judge does not allow more time to file evidence or argument; or

(b) After the deadline for filing evidence or argument is over.

(3) After the record is closed:

(a) No more evidence may be admitted without good cause;

(b) The administrative law judge (ALJ) must enter an initial order and serve copies to the parties; and

(c) The office of administrative hearings must send the official record of the proceedings to the board of appeals. The record must be complete when it is sent, and include all parts required by WAC 182-526-0512.

#### NEW SECTION

##### **WAC 182-526-0512 Contents of the hearing record.**

(1) The administrative law judge must produce a complete official record of the proceedings.

(2) The official record must include, if applicable:

(a) Notice of all proceedings;

(b) Any prehearing order;

(c) Any motions, pleadings, briefs, petitions requests, and intermediate rulings;

(d) Evidence received or considered;

(e) A statement of matters officially noticed;

(f) Offers of proof, objections, and any resulting rulings;

(g) Proposed findings, requested orders and exceptions;

(h) A complete audio recording of the entire hearing, together with any transcript of the hearing;

(i) Any final order, initial order, or order on reconsideration; and

(j) Matters placed on the record after an ex parte communication.

#### NEW SECTION

**WAC 182-526-0520 Information which must be included in the ALJ's initial order.** The administrative law judge (ALJ) must include the following information in the initial order:

(1) Identify the initial order as a health care authority case;

(2) List the name and docket number of the case and the names of all parties and representatives;

(3) Find the facts used to resolve the dispute based on the hearing record;

(4) Explain why evidence is credible when the facts or conduct of a witness is in question;

(5) State the law that applies to the dispute;

(6) Apply the law to the facts of the case in the conclusions of law;

(7) Discuss the reasons for the decision based on the facts and the law;

(8) State the result and remedy ordered;

(9) Explain how to request changes in the initial order and the deadlines for requesting them;

(10) State the date the initial order becomes final according to WAC 182-526-0525; and

(11) Include any other information required by law or program rules.

#### NEW SECTION

**WAC 182-526-0525 When initial orders become final.** An initial order becomes a final order at 5:00 p.m. on the twenty-first calendar day after OAH serves the initial order, unless:

(1) Any party files a request for review of the initial order within twenty-one calendar days of the serving (mailing) of the initial order in accordance with WAC 182-526-0580(1);

(2) Any party files a request for extension of the deadline for filing a request for review which is granted by the review judge pursuant to WAC 182-526-0580(2);

(3) Any party files a late request for review which is accepted by a review judge in accordance with WAC 182-526-0580(3);

(4) A managed care enrollee requests review by an independent review (IR) organization in accordance with RCW 48.43.535 prior to the initial order becoming final or a final order being entered by a review judge. See WAC 182-526-0200 for enrollee appeals.

#### NEW SECTION

**WAC 182-526-0530 How to correct or appeal an initial order.** (1) If a party disagrees with an administrative law judge's (ALJ) initial order because of a clerical error, the party may ask for a corrected initial order from the ALJ as provided in WAC 182-526-0540 through 182-526-0555.

(2) If a party disagrees with an initial order for a reason other than a clerical error and wants the initial order changed, the party must request review by a review judge as provided in WAC 182-526-0560 through 182-526-0595.

#### NEW SECTION

**WAC 182-526-0540 How clerical errors are corrected in the initial orders.** (1) A clerical error is a mistake that does not change the intent of the initial order.

(2) The administrative law judge corrects clerical errors in the initial order by entering and serving a second decision referred to as a corrected initial order.

(3) Some examples of clerical error are:

(a) Missing or incorrect words or numbers;

(b) Dates inconsistent with the decision or evidence in the record such as using May 3, 1989, instead of May 3, 1998; or

(c) Math errors when adding the total of an overpayment.

#### NEW SECTION

**WAC 182-526-0545 How a party requests a corrected initial order.** (1) A party may ask for a corrected

administrative law judge's (ALJ) initial order by calling or writing the office of administrative hearings office that held the hearing.

(2) When asking for a corrected initial order, please identify the clerical error that was found.

#### NEW SECTION

**WAC 182-526-0550 Deadline for a party to request a corrected initial order.** (1) The parties must ask the administrative law judge (ALJ) for a corrected initial order on or before the tenth calendar day after the order was served.

(2) The time period provided in subsection (1) of this section and the time it takes the ALJ to deny the request or make a decision regarding the request for a corrected initial order, do not count against any deadline for a review judge to enter a final order.

#### NEW SECTION

**WAC 182-526-0555 Process after a party requests a corrected initial order.** (1) When a party requests a corrected initial order, the administrative law judge (ALJ) must either:

- (a) Serve all parties a corrected order; or
- (b) Deny the request within three business days of receiving it.

(2) If the ALJ corrects an initial order and a party does not request review, the corrected initial order becomes a final order at 5:00 p.m., twenty-one calendar days after the original initial order was served.

(3) If the ALJ denies a request for a corrected initial order and the party still wants the initial order changed, the party must request review by a review judge.

(4) Requesting an ALJ to correct the initial order does not automatically extend the deadline to request review of the initial order by a review judge. When a party needs more time to request review of an initial order, the party must ask for more time to request review as permitted by WAC 182-526-0580(2).

#### NEW SECTION

**WAC 182-526-0560 Review of an initial order by a review judge.** (1) Review by a review judge is available to a party who disagrees with the administrative law judge's (ALJ) initial order.

(2) If a party wants the initial order substantively changed, the party must request that a review judge review the initial order.

(3) If a request is made for a review judge to review an initial order, it does not mean there is another hearing conducted by a review judge.

(4) Review judges may not review an ALJ's order after the order becomes final, except as permitted by WAC 182-526-0580.

#### NEW SECTION

**WAC 182-526-0565 Evidence a review judge considers in reviewing an initial order.** (1) The review judge, in

most cases, only considers evidence admitted in the record by the administrative law judge.

(2) The review judge considers the request, the initial order, and the record before deciding if the initial order should be changed.

(3) The review judge may allow the parties to make oral argument when reviewing initial orders.

#### NEW SECTION

**WAC 182-526-0570 Request for review of an initial order.** (1) Any party may request a review judge to review the initial order.

(2) If more than one party requests review, each request must meet the deadlines in WAC 182-526-0580.

#### NEW SECTION

**WAC 182-526-0575 How to request review of an initial order.** (1) A party must make the request for review of an initial order in writing and file it with the board of appeals (BOA) at the address given in WAC 182-526-0030 and within the deadlines set forth in WAC 182-526-0580. The party should identify the:

(a) Parts of the initial order with which the party disagrees; and

(b) Evidence supporting the party's position.

(2) A party should also send a copy of the review request to the other parties.

(3) After receiving a party's request for review of an initial order, the BOA serves a copy to the other parties, their representatives, and the office of administrative hearings. The other parties and their representatives may respond as described in WAC 182-526-0590.

#### NEW SECTION

**WAC 182-526-0580 Deadline for requesting review of an initial order by a review judge.** (1) The board of appeals (BOA) must receive the written review request of an initial order on or before 5:00 p.m. on the twenty-first calendar day after the initial order was served, unless an extension of the deadline is granted by the review judge. A party may file the review request by facsimile transmission (fax). A copy of the review request should also be mailed to the BOA.

(2) A review judge may extend the deadline if a party:

(a) Asks for more time before the deadline expires; and

(b) Gives a good reason for more time.

(3) A review judge may accept a review request after the twenty-one calendar day deadline only if:

(a) The BOA receives the review request on or before the thirtieth calendar day after the deadline; and

(b) A party shows good cause for missing the deadline.

(4) The time periods provided by this section for requesting review of an initial order, including any extensions, does not count against a deadline, if any, for a review judge to enter the final order.

NEW SECTION

**WAC 182-526-0590 Response to a request for review.** (1) A party does not have to respond to the request for review. A response is optional.

(2) If a party decides to respond, that party must file the response so that the board of appeals (BOA) receives it on or before the seventh business day after the date the other party's review request was served to the party by the BOA.

(3) The party should send a copy of the response to all other parties or their representatives.

(4) A review judge may extend the deadline in subsection (2) of this section if a party asks for more time before the deadline to respond expires and gives a good reason.

(5) If a party asks for more time to respond, the time period provided by this section for responding to the review request, including any extensions, does not count against any deadline for a review judge to enter the final order.

(6) A review judge may accept and consider a party's response even if it is filed after the deadline.

NEW SECTION

**WAC 182-526-0595 Process after review response deadline.** (1) After the response deadline, the record on review is closed unless the review judge finds there is a good reason to keep it open.

(2) A review judge is assigned to review the initial order after the record is closed. To find out which judge is assigned, call the board of appeals.

(3) After the record is closed, the assigned review judge:

- (a) Reviews the initial order; and
- (b) Enters a final order that affirms, modifies, dismisses or reverses the initial order; or
- (c) Returns the case to the office of administrative hearings for further action.

NEW SECTION

**WAC 182-526-0600 Authority of the review judge.** (1) In some cases, review judges review initial orders and enter final orders. The review judge has the same decision-making authority as the administrative law judge (ALJ). The review judge considers the entire record and decides the case de novo (anew). In reviewing findings of fact, the review judge must give due regard to the ALJ's opportunity to observe witnesses.

(2) Review judges may return (remand) cases to the office of administrative hearings for further action.

(3) In cases where there is a consolidated hearing pursuant to WAC 182-526-0387, any party may request review of the initial order in accordance with the requirements contained in this chapter.

(4) Review judges may not review an ALJ order after the order becomes final, except as provided in WAC 182-526-0580.

(5) Review judges may preside at a hearing and enter the final order in cases conducted under WAC 182-526-0218.

NEW SECTION

**WAC 182-526-0605 Reconsideration of a final order entered by a review judge.** (1) If a party does not agree with the final order and believes the review judge made a mistake and wants it reconsidered, the party may request the review judge to reconsider the decision.

(2) The party must make the request in writing and clearly state why the party wants the final order reconsidered. The party must file the written reconsideration request with the BOA and it must be received by the deadline.

(3) The party should send a copy of the request to all other parties or their representatives.

(4) After receiving a reconsideration request, BOA serves a copy to the other parties and representatives and gives them time to respond.

(5) The final order or the reconsideration decision is the final HCA decision. If a party disagrees with that decision, the party must petition for judicial review to change it.

(6) If a party asks for reconsideration of the final order, the reconsideration process must be completed before a party requests judicial review. However, the party does not need to request reconsideration of a final order before requesting judicial review.

(7) The party may ask the court to stay or stop the HCA action after filing the petition for judicial review.

NEW SECTION

**WAC 182-526-0620 Deadline for requesting reconsideration.** (1) To request reconsideration of a final order entered by a review judge, the BOA must receive a written reconsideration request on or before the tenth calendar day after the final order was served.

(2) The review judge may extend its deadline for filing a request for reconsideration if a party:

- (a) Asks for more time before the deadline expires; and
- (b) Gives a good reason for the extension.

(3) If a reconsideration request is filed after the deadline, the final order will not be reconsidered and the deadline to ask for judicial review of the final HCA decision continues to run.

(4) If a party does not request reconsideration or fails to ask for an extension within the deadline, the final order may not be reconsidered and it becomes the final HCA decision.

NEW SECTION

**WAC 182-526-0630 Responding to a reconsideration request.** (1) A party does not have to respond to a request for reconsideration of a final order. A response is optional.

(2) If a party responds, that party must file a response with the board of appeals (BOA) by or before the seventh business day after the date the review judge mailed the request to the party.

(3) A party should send a copy of the response to any other party or representative.

(4) If a party needs more time to respond, the review judge may extend its deadline if the party gives a good reason within the deadline in subsection (2) of this section.



NEW SECTION

**WAC 182-526-0635 Process after a party requests reconsideration.** (1) After the review judge receives a reconsideration request, the review judge has twenty calendar days to enter and serve a reconsideration decision unless the review judge serves notice allowing more time.

(2) After the BOA receives a reconsideration request, the review judge must either:

- (a) Write a reconsideration decision; or
- (b) Serve all parties an order denying the request.

(3) If the review judge does not serve an order or notice granting more time within twenty days of receipt of the reconsideration request, the request is denied.

NEW SECTION

**WAC 182-526-0640 Judicial review of a final order.**

(1) Judicial review is the process of appealing a final order to a court.

(2) The party that had requested the hearing may appeal a final order by filing a written petition for judicial review that meets the requirements of RCW 34.05.546. HCA may not request judicial review.

(3) The party must consult RCW 34.05.510 to 34.05.598 for further details of the judicial review process.

NEW SECTION

**WAC 182-526-0645 Deadline for petition for judicial review and filing requirements.** A party must file a petition for judicial review with the superior court within thirty calendar days after the final order is served to the parties.

NEW SECTION

**WAC 182-526-0647 Exhaustion of administrative remedies required.** Generally, a party may file a petition for judicial review only after it has completed the administrative hearing process. See RCW 34.05.534.

NEW SECTION

**WAC 182-526-0650 Service of petition for judicial review.** (1) The party must:

- (a) File a petition for judicial review with the court;
- (b) File and serve the petition for judicial review of a final order within thirty days after the date it was mailed to the parties; and

(c) Serve copies of its petition on the health care authority (HCA), the office of the attorney general, and all other parties.

(2) To serve HCA, the petitioning party must deliver a copy of the petition for judicial review to the director of HCA and send a copy to the board of appeals (BOA). The party may hand deliver the petition or send it by mail that gives proof of receipt.

The physical location of the director is:

Director  
Health Care Authority  
626 8th Avenue S.E.

Olympia, WA 98501

The mailing address of the director is:

Director  
Health Care Authority  
P.O. Box 45502  
Olympia, WA 98504-5502

The physical and mailing addresses for BOA are in WAC 182-526-0030.

(3) To serve the office of the attorney general and other parties, the petitioning party may send a copy of the petition for judicial review by regular mail. The party may send a petition to the address for the attorney of record to serve a party. The party may serve the office of the attorney general by hand delivery to:

Office of the Attorney General  
7141 Cleanwater Drive S.W.  
Tumwater, WA 98501

The mailing address of the attorney general is:

Office of the Attorney General  
P.O. Box 40124  
Olympia, WA 98504-0124