

WSR 23-21-044
WITHDRAWAL OF PROPOSED RULES
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
(By the Code Reviser's Office)
[Filed October 10, 2023, 10:51 a.m.]

WAC 388-97-0300, 388-97-03001, 388-97-0920, 388-97-1000, 388-97-10001, 388-97-1020, 388-97-10201, 388-97-1260, 388-97-12601, 388-97-1380, 388-97-13801, 388-97-1580, 388-97-15801, 388-97-1740, 388-97-17401, 388-97-1760, 388-97-17601, 388-97-2400, and 388-97-24001, proposed by the department of social and health services in WSR 23-06-063, appearing in issue 23-07 of the Washington State Register, which was distributed on April 5, 2023, is withdrawn by the office of the code reviser under RCW 34.05.335(3), since the proposal was not adopted within the 180-day period allowed by the statute.

Jennifer C. Meas, Editor
Washington State Register

WSR 23-21-045

WITHDRAWAL OF PROPOSED RULES

HORSE RACING COMMISSION

(By the Code Reviser's Office)

[Filed October 10, 2023, 11:05 a.m.]

WAC 260-49-070, proposed by the horse racing commission in WSR 23-07-047, appearing in issue 23-07 of the Washington State Register, which was distributed on April 5, 2023, is withdrawn by the office of the code reviser under RCW 34.05.335(3), since the proposal was not adopted within the 180-day period allowed by the statute.

Jennifer C. Meas, Editor
Washington State Register

WSR 23-21-062

PROPOSED RULES

EMPLOYMENT SECURITY DEPARTMENT

[Filed October 12, 2023, 2:00 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-14-051.

Title of Rule and Other Identifying Information: Expanding overpayment waivers; WAC 192-220-017 Am I required to pay the overpayment?, 192-220-018 Blanket overpayment waivers for federally funded pandemic era benefits, and 192-220-080 How do I obtain a waiver?

Hearing Location(s): On November 21, 2023, at 9:00 a.m., via Zoom, Meeting ID 811 7064 7138, Passcode 849377, Call in +12532050468,,81170647138#,,,,*849377# US, +12532158782,,81170647138#,,,,*849377# US (Tacoma). Join Zoom meeting <https://esd-wa-gov.zoom.us/j/81170647138?pwd=aWluV2kvK3BSbERZMmd2bkhTL21tQT09>.

Date of Intended Adoption: November 22, 2023.

Submit Written Comments to: Stephanie Frazee, P.O. Box 9046, Olympia, WA 98507-9046, email rules@esd.wa.gov, fax 844-652-7096, by November 21, 2023.

Assistance for Persons with Disabilities: Contact Teresa Eckstein, phone 360-507-9890, fax 360-507-9890, TTY relay 711, email Teresa.eckstein@esd.wa.gov, by November 14, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: This rule making will permanently adopt the department's overpayment waiver emergency rules in order to ensure the overpayment waiver project can be completed. This rule making will also allow the department to consider waivers for claimants with overpayments resulting from a discharge for misconduct that occurred from February 2, 2020, through September 4, 2021.

Reasons Supporting Proposal: The department's current overpayment waiver emergency rules must be adopted as permanent rules so that all applications can be processed under those rules. Additionally, in order to expand the availability of overpayment waivers to individuals impacted by the pandemic, the eligibility for waiver of overpayment should be extended to claimants who have an overpayment because they were discharged for misconduct during the pandemic period.

Statutory Authority for Adoption: RCW 50.20.190, 50.24.020, 50.12.010, and 50.12.040.

Statute Being Implemented: RCW 50.20.190.

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

Name of Proponent: Employment security department, governmental.

Name of Agency Personnel Responsible for Drafting: Stephanie Frazee, Olympia, Washington, 425-465-0313; Implementation and Enforcement: J.R. Richards, Olympia, Washington, 360-463-1079.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Stephanie Frazee, P.O. Box 9046, Olympia, WA 98507-9046, phone 425-465-0313, fax 844-652-7096, TTY relay 771 [711], email rules@esd.wa.gov, <https://esd.wa.gov/newsroom/rulemaking/overpayment-waivers-permanent-rulemaking>.

Scope of exemption for rule proposal from Regulatory Fairness Act requirements:

Is not exempt.

The proposed rule does not impose more-than-minor costs on businesses. Following is a summary of the agency's analysis showing how costs were calculated. The rule making does not impose any additional requirements or costs on small businesses.

October 11, 2023

Joy E. Adams, Acting Director
Employment System Policy and Integrity

OTS-4233.4

AMENDATORY SECTION (Amending WSR 08-21-056, filed 10/9/08, effective 11/9/08)

WAC 192-220-017 Am I required to repay the overpayment? (1) You must repay the full amount of the overpayment, even if you are not at fault, unless you are granted a waiver. (See also WAC 192-230-110.) A waiver means you do not have to repay the overpayment.

(2) Except as provided in subsection (3) of this section, you are potentially eligible for a waiver of an overpayment when it would be against equity and good conscience for the department to require you to repay the full amount.

(3) You are not eligible for a waiver when:

(a) You are at fault for the overpayment;

(b) The overpayment is the result of a discharge for misconduct or gross misconduct (see RCW 50.20.066(5)), unless the discharge occurred during the time period beginning on February 2, 2020, and ending on September 4, 2021;

(c) ~~((The overpayment is the result of a conditional payment of benefits;~~

~~(d))~~ The overpayment decision was issued by a state other than Washington; or

~~((e))~~ (d) The overpayment is for disaster unemployment assistance benefits paid under Section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

[Statutory Authority: RCW 50.12.010, 51.12.040, and 50.20.010. WSR 08-21-056, § 192-220-017, filed 10/9/08, effective 11/9/08.]

NEW SECTION

WAC 192-220-018 Blanket overpayment waivers for federally funded pandemic era benefits. The department will waive overpayments for federally funded benefits when:

(1) The individual answered "no" to being able to work and available for work and:

(a) The state paid Pandemic Unemployment Assistance, Federal Pandemic Unemployment Compensation, or Pandemic Emergency Unemployment Compensation without adjudicating the eligibility issue;

(b) Upon requesting additional information from the individual, the individual either did not respond or the individual confirmed that they were not able to work nor available for work for the week in question; and

(c) The paid benefits resulted in an overpayment for that week.

(2) The individual answered "no" to being unemployed, partially unemployed, or unable or unavailable to work because of the approved COVID-19-related reasons provided in 15 U.S.C. § 9021(a)(3)(A)(ii)(I) and:

(a) The state paid Pandemic Unemployment Assistance anyway;

(b) Following a request from the department for a new self-certification, the individual either did not respond or the individual confirmed that none of the approved COVID-19-related reasons were applicable; and

(c) The state's payment of these benefits resulted in an overpayment for that week.

(3) The individual complied with instructions from the department to submit proof of earnings to be used in calculating the individual's Pandemic Unemployment Assistance weekly benefit amount and:

(a) Through no fault of the individual, the department's instructions were either inadequate or the department incorrectly processed this calculation using self-employment gross income instead of net income or documents from an inapplicable tax year, resulting in an incorrect higher Pandemic Unemployment Assistance weekly benefit amount; and

(b) The department established an overpayment for the difference in the individual's Pandemic Unemployment Assistance weekly benefit amount.

(4) The individual complied with instructions from the department to submit proof of earnings to be used in calculating the individual's Mixed Earner Unemployment Compensation weekly benefit amount and:

(a) Through no fault of the individual, the department's instructions were either inadequate or the department incorrectly processed this calculation using self-employment gross income instead of net income or documents from an inapplicable tax year, resulting in an incorrect higher Mixed Earner Unemployment Compensation weekly benefit amount; and

(b) The department established an overpayment for the difference in the individual's Mixed Earner Unemployment Compensation weekly benefit amount.

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AMENDATORY SECTION (Amending WSR 17-04-090, filed 1/31/17, effective 3/3/17)

WAC 192-220-080 How do I obtain a waiver? (1) When a decision is issued that creates an overpayment, the department will send you an application for waiver if you are potentially eligible.

(2) The waiver application asks for information concerning your financial condition and other circumstances which will help the department determine if the overpayment should be waived.

(3) The financial information requested includes documentation for the previous month, current month, and following month of your:

(a) Income and, to the extent available, the income of other household members who contribute financially to the household;

(b) Expenses; and

(c) Readily available liquid assets including, but not limited to, checking and savings account balances, stocks, bonds, and cash on hand.

(4) The completed application and supporting documents must be returned to the department by the response deadline indicated in the notice, which will be no less than five working days plus reasonable mailing time, if any. If you do not provide the information by the deadline, the department will make a decision about your eligibility for waiver based on available information.

(5) A waiver cannot exceed the total amount of benefits available on your claim. The department will not waive the overpayment in such a way as to allow you to receive either a greater weekly benefit amount or a greater total benefit amount than you were originally eligible to receive. Any benefits waived are considered paid to you.

Example: You misplace a benefit check and request a replacement from the department. You subsequently cash both the original check and the replacement. Waiver will not be approved under these circumstances because you have been paid twice for the same week.

(6) If a waiver is approved based on information that is later found to be false or misleading, the amount waived will be restored to your overpayment balance.

(7) For benefits paid for the week beginning February 2, 2020, through the week ending September 4, 2021, the department will allow claimants to apply a second time for a waiver of their overpayment for benefits, even if the individual previously had an overpayment waiver request denied or was previously deemed ineligible for an overpayment waiver.

[Statutory Authority: RCW 50.12.010 and 50.12.040. WSR 17-04-090, § 192-220-080, filed 1/31/17, effective 3/3/17; WSR 16-21-013, § 192-220-080, filed 10/7/16, effective 11/14/16. Statutory Authority: RCW 50.12.010, 51.12.040, and 50.20.010. WSR 08-21-056, § 192-220-080, filed 10/9/08, effective 11/9/08.]

WSR 23-21-066

PROPOSED RULES

DEPARTMENT OF TRANSPORTATION

[Filed October 12, 2023, 3:23 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-14-071.

Title of Rule and Other Identifying Information: Conducting risk-based inspections of rail fixed guideway public transportation systems (RFGPTS).

Hearing Location(s): On December 15, 2023, at 10:00 a.m., at the Nisqually Conference Room, 310 Maple Park Avenue S.E., 1st Floor Room 1D02, Olympia, WA 98501.

Date of Intended Adoption: April 1, 2024.

Submit Written Comments to: Molly Hughes, 310 Maple Park Avenue S.E., P.O. Box 47300, email hughesm@wsdot.wa.gov, fax 360-705-6820, by December 14, 2023.

Assistance for Persons with Disabilities: Contact Sarah Rose, ADA accessibility coordinator, phone 855-362-4232, email wsdotada@wsdot.wa.gov, by December 14, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The purpose of this proposed rule making is to implement the Federal Transit Administration's (FTA) Special Directive 22-51 that requires Washington state department of transportation (WSDOT) to implement a risk-based inspection program for the RFGPTS that it oversees. Its anticipated effects will be to expand WSDOT's state safety oversight program reach to the authority and capability to enter facilities of each RFGPTS that the state safety oversight agency oversees to inspect infrastructure, equipment, records, personnel, and data. This proposed rule making would not change any existing rules. Rather, it expands WSDOT's authority for risk-based inspections.

Reasons Supporting Proposal: On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law, enacted as the Infrastructure Investment and Jobs Act, which continues the public transportation safety program. The Bipartisan Infrastructure Law amended 49 U.S.C. Section 5329 to require state safety oversight agencies to conduct risk-based inspections of the RFGPTS that it oversees. By supporting this proposal, WSDOT helps to ensure its compliance with this federal law and reduces the likelihood FTA will take any enforcement action for noncompliance that could include withholding of FTA grant funding.

Statutory Authority for Adoption: Existing WAC 468-550-010 outlines the statutory authority for chapter 468-550 WAC, Safety oversight of rail fixed guideway systems rules. This proposed rule making provides the statutory authority for adoption.

Statute Being Implemented: RCW 81.1.4.115 [81.104.115], 43.06.120.

Rule is necessary because of federal law, 49 U.S.C. Section 5329(k).

Name of Proponent: WSDOT, governmental.

Name of Agency Personnel Responsible for Drafting: Steven Meyeroff, WSDOT Headquarters, Olympia, 520-820-5389; Implementation and Enforcement: Molly Hughes, WSDOT Offices, Seattle, 360-742-8458.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. This rule making will have minimal or no economic impact to small business in Washington state. This was determined by the fact that this proposed rule only impacts four entities in Washington state, all of which are government or quasi-governmental entities that provide public rail fixed guideway public transportation. Therefore, as defined in RCW 19.85.025(4), the requirements do not apply to the rule-making process for chapter 468-550 WAC, Safety oversight of rail fixed guideway public transportation systems.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.061 because this rule making is being adopted solely to conform and/or comply with federal statute or regulations. Citation of the specific federal statute or regulation and description of the consequences to the state if the rule is not adopted: 49 U.S.C. Section 5329(k) and C.F.R. Part 670. These laws require WSDOT to submit documentation that demonstrates that WSDOT has developed and implemented a risk-based inspection program.

Is exempt under RCW 19.85.025(4).

Explanation of exemptions: This rule making will have minimal or no economic impact to small business in Washington state. This was determined by the fact that this proposed rule only impacts four entities in Washington state, all of which are government or quasi-governmental entities that provide public rail fixed guideway public transportation. Therefore, as defined in RCW 19.85.025(4), the requirements do not apply to the rule-making process for chapter 468-550 WAC, Safety oversight of rail fixed guideway public transportation systems.

Scope of exemption for rule proposal:

Is fully exempt.

October 11, 2023
Sam Wilson, Director
Business Support Services

OTS-4874.1

NEW SECTION

WAC 468-550-071 Access and implementation of risk-based inspections. All WSDOT trained inspection personnel, including consultants hired for the purpose of conducting inspections, are granted authority under the state safety oversight program to conduct both announced and unannounced inspections of the rail fixed guideway public transportation system (RFGPTS). Each RFGPTS must allow WSDOT and/or consultants to do all things reasonable and necessary to conduct their inspections including, but not limited to, entering RTA facilities and other relevant locations, and inspecting infrastructure, equipment, records, personnel, and data, including the data that the rail fixed guideway public transportation agency collects when identifying and evaluating safety risks. It is expected that the RTA will provide the WSDOT inspection staff with the resources and information necessary to conduct the inspection in an effective and efficient manner.

WSDOT, in consultation with each rail fixed guideway public transportation agency that it oversees, will establish policies and procedures regarding the access to each RFGPTS for the purpose of conducting inspections of the rail fixed guideway public transportation system, including access for inspections that occur without advance notice to the rail fixed guideway public transportation agency.

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WSR 23-21-068

PROPOSED RULES

HEALTH CARE AUTHORITY

[Filed October 12, 2023, 4:10 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-17-042.

Title of Rule and Other Identifying Information: WAC 182-559-300
Eligibility for community support services.

Hearing Location(s): On November 21, 2023, at 10:00 a.m. The health care authority (HCA) holds public hearings virtually without a physical meeting place. To attend the virtual public hearing, you must **register in advance** https://us02web.zoom.us/webinar/register/WN_F8flPPyoSyqDs-EZHwgrLQ. If the link opens with an error message, please try using a different browser. After registering, you will receive a confirmation email containing information about joining the public hearing.

Date of Intended Adoption: November 22, 2023.

Submit Written Comments to: HCA Rules Coordinator, P.O. Box 42716, Olympia, WA 98504-2716, email arc@hca.wa.gov, fax 360-586-9727, by November 21, 2023, by 11:59 p.m.

Assistance for Persons with Disabilities: Contact Johanna Larson, phone 360-725-1349, fax 360-586-9727, telecommunication[s] relay service 711, email Johanna.larson@hca.wa.gov, by November 10, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: HCA intends to lower the minimum eligibility age for community support services from age 18 to age 16.

Reasons Supporting Proposal: This proposed rule will allow more people to receive supportive housing services that aim to reduce homelessness and improve health outcomes.

Statutory Authority for Adoption: RCW 41.05.021, 41.05.160.

Statute Being Implemented: RCW 41.05.021, 41.05.160.

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

Name of Proponent: HCA, governmental.

Name of Agency Personnel Responsible for Drafting: Melinda Froud, P.O. Box 42716, Olympia, WA 98605 [98504]-2716, 360-725-1408; Implementation and Enforcement: Matthew Christie, P.O. Box 42730, Olympia, WA 98504-2730, 360-725-1015.

A school district fiscal impact statement is not required under RCW 28A.305.135.

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.

Scope of exemption for rule proposal from Regulatory Fairness Act requirements:

Is not exempt.

The proposed rule does not impose more-than-minor costs on businesses. Following is a summary of the agency's analysis showing how costs were calculated. The proposed rule change pertains to client eligibility and does not impose any costs on businesses.

October 12, 2023
Wendy Barcus
Rules Coordinator

OTS-4866.1

AMENDATORY SECTION (Amending WSR 21-23-052, filed 11/10/21, effective 12/11/21)

WAC 182-559-300 Eligibility for community support services. To be eligible for community support services, a client must:

- (1) Be age (~~(eighteen)~~) 16 or older;
- (2) Be eligible for Washington apple health (medicaid);
- (3) Meet at least one of the following health criteria and be expected to benefit from community support services:

(a) Clients assessed by a licensed behavioral health agency, under chapter 246-341 WAC, to have a behavioral health need, which is defined as one or both of the following criteria:

(i) Mental health needs, including a need for improvement, stabilization, or prevention of deterioration of functioning (including the ability to live independently without support) resulting from the presence of a mental illness; or

(ii) Substance use needs determined by an assessment using the American Society of Addiction Medicine (ASAM) criteria indicates that the client meets at least ASAM level 1.0, indicating the need for outpatient substance use disorder (SUD) treatment. The ASAM is a multi-dimensional assessment approach for determining a client's need for SUD treatment.

(b) Clients assessed via a CARE assessment, per WAC 388-106-0050, to have a need for assistance demonstrated by:

(i) The need for assistance with at least three activities of daily living (ADLs) defined in WAC 388-106-0010, one of which may be body care; or

(ii) The need for hands-on assistance with at least one ADL which may include body care.

(c) Clients assessed to be a homeless person with a disability, according to 24 C.F.R. 578.3, which is defined as a long continuing or indefinite physical condition requiring improvement, stabilization, or prevention of deterioration of functioning (including ability to live independently without support).

(4) Exhibit at least one of the following risk factors:

(a) Homeless clients who:

(i) Have been homeless for at least (~~(twelve)~~) 12 months; or

(ii) Have been homeless on at least four separate occasions in the last three years, as long as the combined occasions equal at least (~~(twelve)~~) 12 months.

Homeless is defined as living in a safe haven, an emergency shelter, or a place not meant for human habitation. See 24 C.F.R. 578.3.

(b) A history of frequent or lengthy institutional contact.

(i) Institutional care facilities include jails, substance use disorder or mental health treatment facilities, hospitals, or other similar facilities, as defined in 24 C.F.R. 578.3, or skilled nursing facilities as defined in WAC 388-97-0001.

(ii) Frequent means more than one contact in the past (~~(twelve)~~) 12 months.

(iii) Lengthy means (~~(ninety)~~) 90 or more consecutive days within an institutional setting in the past (~~(twelve)~~) 12 months.

(c) A history of frequent stays at adult residential care facilities as defined by WAC 388-110-020 or residential treatment facilities

as defined by WAC 246-337-005. Frequent means more than one contact in the past (~~twelve~~) 12 months.

(d) Have frequent turnover of in-home caregivers as defined by WAC 388-106-0040, where within the last (~~twelve~~) 12 months the client utilized three or more different in-home caregiver providers and the current placement is not appropriate for the client.

(e) Have a predictive risk score of 1.5 or above. See WAC 182-557-0225.

[Statutory Authority: RCW 41.05.021 and 41.05.160. WSR 21-23-052, § 182-559-300, filed 11/10/21, effective 12/11/21; WSR 18-15-007, § 182-559-300, filed 7/6/18, effective 8/6/18. Statutory Authority: RCW 41.05.021, 41.05.160, 2014 c 225 § 9 (1)(i) and 2016 1st sp.s c 36 § 213 (1)(f) and (g). WSR 17-11-136, § 182-559-300, filed 5/24/17, effective 7/1/17.]

WSR 23-21-071

PROPOSED RULES

DEPARTMENT OF HEALTH

(Board of Nursing)

[Filed October 12, 2023, 4:33 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 22-06-057.

Title of Rule and Other Identifying Information: Temporary practice permit effective dates for licensed practical nurses (LPN) and registered nurses (RN). The Washington state board of nursing (board) is proposing amendments to WAC 246-840-095 Temporary practice permits, reducing the length of time a temporary practice permit is effective and updating criteria to issue a temporary practice permit in order to align the internal board process with rule language and implement 2SHB 1009 (chapter 165, Laws of 2023), Military spouses—Professional licensing and employment.

Hearing Location(s): On November 29, 2023, at 12:00 p.m., at the Department of Health (DOH), 111 Israel Road S.E., TC2 Room 145, Tumwater, WA 98501; or virtually. We invite you to participate in our public rules hearing using your computer, tablet, or smart phone. Please register at <https://us02web.zoom.us/meeting/register/tZItcOCqpjoqGdYBYxNLU64Tw-cwu3F-xVWq>. After registering, you will receive a confirmation email containing information about joining the webinar.

Date of Intended Adoption: November 29, 2023.

Submit Written Comments to: Jessilyn Dagum, P.O. Box 47864, Olympia, WA 98504-7864, email <https://fortress.wa.gov/doh/policyreview>, fax 360-236-4738, by November 21, 2023.

Assistance for Persons with Disabilities: Contact Jessilyn Dagum, phone 360-236-3538, fax 360-236-4738, TTY 711, email NCQAC.Rules@doh.wa.gov, by November 21, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Nurse applicants with an out-of-state address, including RNs, advanced registered nurse practitioners, and LPNs, are required under RCW 18.130.064 to complete a national fingerprint background check prior to licensure. The board is proposing amendments to reduce the length of time a temporary practice permit is active from 180 days after the temporary practice permit is issued to 60 days, and reducing the extension of 180 days to 30 days to align WAC 246-840-095 with the current practice of the board and promote completion of the licensure process.

The proposed amendments exclude military spouses in accordance with 2SHB 1009 (chapter 165, Laws of 2023), Military spouses—Professional licensing and employment, which requires the board to issue a temporary practice permit, which is active for no less than 180 days, to a person who meets the criteria of RCW 18.340.020 within 30 days of receiving a completed application.

Reasons Supporting Proposal: The board's current practice is to issue a temporary practice permit after the applicant meets all other licensure requirements aside from receipt of the national fingerprint background check, allowing the nurse to begin working in Washington state.

Currently, under WAC 246-840-095 the temporary practice permit is valid for 180 days, until the board issues a permanent Washington state license to the nurse, or a notice of decision to deny the application is mailed to the applicant. WAC 246-840-095 also allows for an

additional 180-day extension of the temporary practice permit if the department has not received the fingerprint results during the initial 180-day period.

According to the board's licensing data, over the past five years, almost 19 percent of nurses are not in compliance with completing the national fingerprint background check and are working under the temporary practice permit and never complete the FBI fingerprint process thus potentially compromising patient safety.

The current temporary practice permit expiration of 180 days does not encourage applicants, including travel nurses, to complete the requirement. Reducing the length of the temporary practice permit would encourage completion of the FBI requirement thus ensuring patient safety and reducing the quantity of incomplete applications.

The board is proposing amendments to reduce the length of time a temporary practice permit is active from 180 days after the temporary practice permit is issued to 60 days with an extension of 30 days, rather than 180 days, to align WAC 246-840-095 with the current practice of the board and promote completion of the licensure process. The board's licensing data supports that the fingerprint process can be completed in 90 days or less.

The proposed amendments exclude military spouses in accordance with RCW 18.340.020(2), effective October 1, 2023, which requires the board to issue a temporary practice permit, which is active for no less than 180 days, to a person who meets the criteria of RCW 18.340.020.

Statutory Authority for Adoption: RCW 18.79.010, 18.79.110, 18.79.160, 18.79.200, 18.340.020, 18.130.075, and 18.130.064.

Statute Being Implemented: RCW 18.340.020, 18.340.075, and 18.340.064.

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

Name of Proponent: Washington state board of nursing, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Jessilyn Dagum, 111 Israel Road S.E., Tumwater, WA 98504, 360-236-3538; Enforcement: Catherine Woodard, 111 Israel Road S.E., Tumwater, WA 98504, 360-236-4757.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Jessilyn Dagum, P.O. Box 47864, Olympia, WA 98504-7864, phone 360-236-3538, fax 360-236-4738, TTY 711, email NCQAC.Rules@doh.wa.gov.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(4).

Scope of exemption for rule proposal:

Is fully exempt.

October 12, 2023
Alison Bradywood DNP, MN/MPH, RN, NEA-BC
Executive Director
Washington State Board of Nursing

OTS-4709.3

AMENDATORY SECTION (Amending WSR 10-07-015, filed 3/5/10, effective 4/5/10)

WAC 246-840-095 Temporary practice permits. The ~~((nursing care quality assurance commission (NCQAC)))~~ Washington state board of nursing (board) conducts background checks on applicants to assure safe patient care. Completion of a fingerprint-based national background check may cause a delay in licensing.

(1) The ~~((NCQAC))~~ board may issue a temporary practice permit to an applicant who holds an unrestricted, active license in another state which has substantially equivalent licensing standards to those in Washington. The applicant must not be subject to denial of a license or issuance of a conditional or restricted license.

(2) A temporary practice permit serves as a license to practice nursing during the time period specified on the permit.

(3) A temporary practice permit expires when:

(a) A license is granted;

(b) A notice of decision on application is mailed to the applicant, unless the notice of decision on application specifically extends the duration of the temporary practice permit; or

(c) ~~((One hundred eighty))~~ Sixty days after the temporary practice permit is issued, or 180 days for military spouse applicants.

If, at the expiration of the original temporary practice permit, the department of health (department) has not received information from the fingerprint-based national background check, the ~~((NCQAC))~~ board may renew the temporary practice permit for an additional ~~((one hundred eighty))~~ 30 days.

(4) To receive a temporary practice permit, the applicant must:

(a) Submit to the board an application and the necessary application fee(s) ~~((and documentation))~~ for the license.

(b) ~~((Submit a completed national background check fingerprint card, if required.~~

~~((e)))~~ Meet all other requirements and qualifications for the license, except for the results from a fingerprint-based national background check, if required.

~~((d)))~~ (c) Provide to the board verification of holding an unrestricted nursing license from another state that has substantially equivalent licensing standards to those in Washington.

~~((e) Submit a separate application for a temporary practice permit.))~~ (5) The applicant shall submit to the department a completed national fingerprint background check within 30 days of applying to the board, or the permanent license application may be closed as incomplete. The temporary practice permit shall not be extended in accordance with subsection (3)(c) of this section unless the applicant's fingerprint cards have been received by the department and a national fingerprint background check is in process.

[Statutory Authority: RCW 18.130.075 and 18.130.064. WSR 10-07-015, § 246-840-095, filed 3/5/10, effective 4/5/10; WSR 09-17-053, § 246-840-095, filed 8/13/09, effective 9/13/09.]

WSR 23-21-073

PROPOSED RULES

CENTRALIA COLLEGE

[Filed October 13, 2023, 12:56 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-17-157.

Title of Rule and Other Identifying Information: Chapter 132L-117 WAC, Parking and traffic regulations.

Hearing Location(s): On November 21, 2023, at 4:00 - 6:00 p.m., at Centralia College campus, Hanson Building Boardrooms. This public hearing is in person only.

Date of Intended Adoption: November 21, 2023.

Submit Written Comments to: Janet Reaume, 600 Centralia College Boulevard, Centralia, 98531, email janet.reaume@centralia.edu, by November 20, 2023.

Assistance for Persons with Disabilities: Contact Michael Hoel, phone 360-623-8437, email Michael.hoel@centralia.edu, by November 20, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The existing parking and traffic regulations were outdated. Necessary changes were needed to reflect actual processes and procedures.

Statutory Authority for Adoption: Chapter 34.05 RCW; and RCW 28B.50.140(13).

Statute Being Implemented: Edited chapter 132L-117 WAC, Parking and traffic regulations.

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

Name of Proponent: Public.

Name of Agency Personnel Responsible for Drafting: Janet Reaume, Hanson Administrative Building, Centralia College, 360-623-8589; Implementation: Robert Cox, TAC Building, Centralia College, 360-623-8385; and Enforcement: Jared Cunningham, TSB Building, Centralia College, 360-623-8454.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect.

October 13, 2023

Janet Reaume

Executive Assistant to the President

OTS-4881.2

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-010 Purpose (~~((for adopting parking and traffic regulations))~~). Pursuant to the authority granted by RCW 28B.50.140(10), the board of trustees of Centralia College is granted authority to adopt rules and regulations for pedestrian and vehicular traffic upon public lands devoted to, operated by, or maintained by the college. The board delegates this authority to the president. ~~((The objectives of these regulations are:~~

- ~~(1) To protect and control pedestrian and vehicular traffic.~~
- ~~(2) To assure access at all times for emergency traffic.~~
- ~~(3) To minimize traffic disturbances during class hours.~~
- ~~(4) To facilitate the work of the college by assuring access to its vehicles and by assigning limited parking space for the most efficient use by all.~~
- ~~(5) To regulate the use of parking spaces.~~
- ~~(6) To protect state-owned property.))~~

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-010, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-010, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-020 Applicable (~~((parking and traffic))~~) **regulations.**

- (1) All regulations in this chapter and all motor vehicle and other traffic laws of the state of Washington shall apply on the campus.
- (2) The traffic code of the city of Centralia shall apply upon all lands located within the city of Centralia.
- (3) The traffic code of the municipality within which any Centralia College controlled property resides shall apply.

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-020, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-020, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-030 Definitions. As used in this chapter, the following words and phrases shall mean:

- (1) "Board": The board of trustees of Centralia College.
- (2) "Campus": All lands and buildings devoted to, operated by, or maintained by Centralia College.
- (3) "College": Centralia College.
- (4) "Employee": An individual appointed to the faculty, staff, or administration of the college.
- (5) "Guests/visitors": Person or persons who come upon the campus as guests and person or persons who lawfully visit the campus.

(6) (~~"Continuing permits": Permits issued to full-time employees for an indefinite period of time.~~

~~(7) "Annual permits": Permits that are valid from the date of issue until the first day of the following fall quarter.~~

~~(8) "Temporary permits": Permits that are valid for a specific period designated on the permit.~~

~~(9)) "Permits": Permits issued to employees, guests, or students under current parking procedures.~~

~~(7) "Vehicle": Automobile, truck, motor-driven cycle, scooter, one wheel, bicycle, recreational, or ((and)) any vehicle otherwise powered.~~

~~((10) "Full-time student": Any person who is enrolled on campus for ten credit hours or more at the college.~~

~~(11) "Part-time student": Any person who is enrolled on campus for nine credit hours or fewer at the college.~~

~~(12) "Full-time employee": An employee of the college employed twenty hours or more per week on a permanent regular basis.~~

~~(13) "Part-time employee": An employee of the college employed less than twenty hours per week.)) (8) "Student": Anyone currently enrolled in credited or noncredited courses.~~

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-030, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-030, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-040 Authorization for issuance of permits. ((+1))

The chief administrative officer, or designee, is authorized to issue parking permits to students, employees, and guests (~~upon the following:~~

~~(1a) When the vehicle is properly registered with the college.~~

~~(1b) When a permanent or special parking permit is necessary to enhance the business or operation of the college.~~

~~(2) Additional permits are available at the current fee schedule to individuals who may be registered to drive any one of several vehicles. Only one vehicle registered to an individual under one permit fee shall be permitted to park on campus at any one time)) when required by college procedures.~~

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-040, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-040, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 90-17-060, filed 8/14/90, effective 9/14/90)

WAC 132L-117-050 ((Vehicle parking permits-)) Violation of parking and traffic regulations. ~~((1) All part-time and full-time employees and students of the college shall obtain and display a cur-~~

rently valid parking permit on all vehicles parked or left standing unattended upon the college campus for both day and night classes, in accordance with WAC 132L-117-040.

~~(2) All persons parking on the campus shall secure and display a currently valid parking permit within five days from date of registration or from the first day of employment.)~~ (1) Operators of illegally operated or parked vehicles shall be warned or cited through an appropriate means that they are in violation of these regulations. All fines are payable through the cashier's office.

(2) In instances where violations are repeated, and in the judgment of the safety and security supervisor, with appropriate documented evidence, parking privileges may be revoked and said vehicles may be impounded. Individuals may be subject to additional discipline through the applicable process.

[Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-050, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-060 ((Visitor permits.)) Issuance of traffic tickets or summons. ~~((All guests/visitors (including salespersons, maintenance or service personnel) will park in appropriate parking areas after obtaining a temporary permit.))~~ (1) The chief administrative officer or designee may issue a warning or citation for a violation of these regulations. The warning or citation should set forth the date, the approximate time, license information and nature of violation.

(2) Such warning or citation may be served by attaching or affixing a copy thereof in some prominent place outside such vehicle or by personally serving the operator.

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-060, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-060, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 90-17-060, filed 8/14/90, effective 9/14/90)

WAC 132L-117-070 ((Responsibility of person to whom permit is issued.)) Fines and penalties. ~~((The person to whom a parking permit is issued shall be responsible for all violations of said rules and regulations involving the vehicle; however, such responsibility shall not relieve said driver of the responsibility for violations of the regulations established by this chapter. In the event that a vehicle in violation is not registered with the college, the current registered owner will be responsible for the violations of the campus regulations.))~~ The chief administrative officer, or designee, is authorized to impose the following fines and penalties for violation of the regulations contained in this chapter:

(1) The president or designee shall set a schedule of fines. The schedule will be published by the college. In addition, the schedule is available upon request.

(2) Fines will be assessed in accordance with the fees and fines schedules as established by the currently published procedures for the following violations:

- (a) No valid permit displayed;
- (b) Visitor parking violations;
- (c) Occupying more than one parking space;
- (d) Occupying space/area not designated for parking;
- (e) Handicapped parking violation;
- (f) Parking in area not authorized by permit;
- (g) Parking in reserved staff space without permit;
- (h) Blocking or obstructing traffic (may be towed at owner's expense);
- (i) Parking adjacent to fire hydrant (may be towed at owner's expense);
- (j) Parking in fire lane (may be towed at owner's expense);
- (k) Parking in zone or area marked no parking;
- (l) Other violations of college parking traffic regulations.

(3) At the discretion of the chief administrative officer, or designee, an accumulation of citations by a staff, administrator, or faculty member may be turned over to a private collection agency for the collection of past due fines. Other appropriate collection procedures may be initiated as deemed necessary.

(4) Vehicles parking in a manner so as to obstruct traffic, including access to and from parking spaces and areas, may be subject to a fine and may be impounded and taken to such place for storage as the chief administrative officer, or designee, selects. The expenses of such impounding and storage shall be the responsibility of the registered owner or driver of the vehicle.

(5) Vehicles impounded by means of an immobilizing device shall be charged a service fee according to the current fee schedule.

(6) The college shall not be liable for loss, damage, or costs of any kind resulting from impounding and storage of vehicles.

(7) Vehicles involved in violations of these regulations may be impounded as provided for in these regulations.

(8) Persons may appeal the issuance of a citation according to WAC 132L-117-180.

(9) In the event a person fails or refuses to pay an uncontested fine, additional penalties may apply as defined in college procedures.

[Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-070, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-080 ((Display of permits-)) ~~Appeal proceedings—Appeal of fines and penalties.~~ ((The parking permit issued by the college shall be visibly affixed on the outside of the rear window or the rear bumper on the driver's side of the vehicle. Motorcycle permits must be affixed in a conspicuous place.

(1) Appeals must be presented in writing, giving full particulars, listing witnesses, evidence, etc.

(2) Appeals must be submitted to the chief administrative officer within five business days from date of citation.

(3) If an appeal is not resolved to the satisfaction of the alleged violator, he/she shall have five additional business days from receipt of decision by the chief administrative officer to appeal to the parking advisory committee.

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-080, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-080, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-090 ((Transfer of permits.)) Parking appeals committee. ((Parking permits are not transferable. If a vehicle is sold or traded, the parking permit must be removed, the new vehicle must be registered, and a new permit will be reissued.)) The parking appeals committee shall be convened as necessary by the president and be structured and responsible for the following purposes:

(1) To receive and hear appeals related to parking and traffic violations. All decisions made by the parking appeals committee relative to parking/traffic appeals shall be final.

(2) Membership shall consist of at least: Two student representatives, one faculty representative, one classified representative, and one administrator. The chair will be appointed by the president.

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-090, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-090, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 90-17-060, filed 8/14/90, effective 9/14/90)

WAC 132L-117-100 ((Permit revocation.)) Liability of college. ((Permits are licenses and the property of the college, and may be revoked for any of the following reasons:

~~(1) When the purpose for which the permit was issued changes or no longer exists.~~

~~(2) When a permit is used on an unregistered vehicle or by an unauthorized person.~~

~~(3) Falsification on a vehicle registration application.~~

~~(4) Continued violations of parking and traffic regulations.~~

~~(5) Counterfeiting or altering of permits.)) The college assumes no liability under any circumstances for theft or damage occurring to vehicles, bicycles or their contents. No bailment of any sort is created by the purchase of a parking permit.~~

[Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-100, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-110 ((Right to refuse permit.)) Designation of parking. ((The chief administrative officer, or designee, reserves the right to refuse the issuance of a parking permit to anyone who has had a previous permit revoked, or whose driving or parking record indicates a disregard for the rights or safety of others.)) The parking spaces available on campus may be allocated and designated by the chief administrative officer in such a manner as will best achieve the objectives of these rules and regulations.

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-110, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-110, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 90-17-060, filed 8/14/90, effective 9/14/90)

WAC 132L-117-120 ((Right to appeal permit revocation/refusal.)) Parking within designated spaces. ((When a parking permit has been revoked pursuant to WAC 132L-117-100 or has been refused in accordance with WAC 132L-117-110 or when a fine or penalty has been levied against a violator of the rules and regulations set forth in this chapter, such action by the dean of administration, or designee, may be appealed in accordance with WAC 132L-117-180.)) (1) No vehicle shall be parked on the campus except in those areas set aside and designated for parking.

(2) No vehicle shall be parked so as to occupy any portion of more than one parking space or stall.

(3) Special limitations may be enforced for large vehicles such as recreational vehicles, trailers, and other nonstandard vehicles.

(4) Overnight parking prohibited without special permission from campus security.

[Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-120, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-130 ((Delegation of authority.)) Regulatory signs, markings, barricades, etc. ((The authority and powers conferred upon the chief administrative officer by these regulations shall be subject to delegation to that individual's subordinates.)) The chief administrative officer, or designee, is authorized to make and erect signs,

barricades, and other structures and to paint marks and other directions upon the streets, entry/exits, and roadways for the regulation of traffic and parking upon the various public lands devoted to, operated by, or maintained by the college. Drivers shall observe and obey all the signs, barricades, structures, markings, and directions given them by the campus authorities in the control and regulation of traffic and parking.

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-130, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-130, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-140 ((Enforcement.)) Report of accidents. ((+1) Parking and traffic regulations will be enforced at all times. (2) The chief administrative officer, or designee shall be responsible for the enforcement of the regulations contained in this chapter.) Any vehicle accident on campus must be reported immediately to campus security or the chief administrative officer or designee.

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-140, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-140, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 90-17-060, filed 8/14/90, effective 9/14/90)

WAC 132L-117-150 ((Violation of parking and traffic regulations.)) Disabled and inoperative vehicles—Impounding. ((+1) Operators of illegally operated or parked vehicles shall be warned or cited through an appropriate means that they are in violation of these regulations. All fines are payable at the cashier's office. (2) In instances where violations are repeated, and in the judgment of the safety and security supervisor, with appropriate documented evidence, said vehicles may be impounded.) (1) Disabled or inoperative vehicles shall not be parked on the campus for a period exceeding 72 hours, without authorization from the chief administrative officer, or designee.
(2) Vehicles parked over 72 hours without authorization may be impounded and stored at the expense of either or both the owner and operator thereof.
(3) Notice of intent to impound will be posted on the vehicle 24 hours prior to impound.

[Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-150, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 04-19-062, filed 9/15/04, effective 10/16/04)

WAC 132L-117-160 ((Issuance of traffic tickets or summons.)) Authority to establish parking fee. ((1) The chief administrative officer or designee may issue a warning or citation for a violation of these regulations. The warning or citation should set forth the date, the approximate time, permit number, license information and nature of violation.

(2) Such warning or citation may be served by attaching or affixing a copy thereof in some prominent place outside such vehicle or by personally serving the operator.)) The president or designee shall set and review as necessary parking permit fees in accordance with WAC 132L-117-300 and a schedule of fines and penalties in accordance with WAC 132L-117-170.

[Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-160, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-160, filed 8/14/90, effective 9/14/90.]

AMENDATORY SECTION (Amending WSR 23-12-113, filed 6/7/23, effective 7/8/23)

WAC 132L-117-170 ((Fines and penalties.)) Parking permit fees. ((The chief administrative officer, or designee, is authorized to impose the following fines and penalties for violation of the regulations contained in this chapter:

(1) The president shall set a schedule of fines. The schedule shall be published by the college in the College Policy Manual, on the parking permit request form, and on the traffic parking citation form. In addition, the schedule is available upon request.

(2) Fines will be assessed in accordance with the fees and fines schedules as established by the president for the following violations:

- (a) No valid permit displayed
- (b) Visitor parking violations
- (c) Occupying more than one parking space
- (d) Occupying space/area not designated for parking
- (e) Handicapped parking violation
- (f) Parking in area not authorized by permit
- (g) Parking in reserved staff space without authorization
- (h) Blocking or obstructing traffic (may be towed at owner's expense)
- (i) Parking adjacent to fire hydrant (may be towed at owner's expense)
- (j) Parking in fire lane (may be towed at owner's expense)
- (k) Parking in zone or area marked no parking
- (l) Other violations of college parking traffic regulations.

(3) At the discretion of the chief administrative officer, or designee, an accumulation of citations by a staff, administrator, or faculty member may be turned over to a private collection agency for the collection of past due fines. Other appropriate collection procedures may be initiated as deemed necessary.

~~(4) Vehicles parking in a manner so as to obstruct traffic, including access to and from parking spaces and areas, may be subject to a fine and may be impounded and taken to such place for storage as the chief administrative officer, or designee, selects. The expenses of such impounding and storage shall be the responsibility of the registered owner or driver of the vehicle.~~

~~(5) Vehicles impounded by means of an immobilizing device shall be charged a service fee according to the current fee schedule.~~

~~(6) The college shall not be liable for loss or damage of any kind resulting from impounding and storage of vehicles.~~

~~(7) Vehicles involved in violations of these regulations may be impounded as provided for in these regulations.~~

~~(8) Persons may appeal the issuance of a citation according to WAC 132L-117-180.~~

~~(9) In the event a person fails or refuses to pay an uncontested fine which has been outstanding in excess of five days, the chief administrative officer, or designee, may initiate the following actions:~~

~~(a) Students will not be able to register for subsequent quarters until all fines are paid.~~

~~(b) Students may be turned over to a private collection agency for the collection of past due fines.) Fees shall be levied in accordance with the current published fee schedule.~~

[Statutory Authority: 2020 c 281. WSR 23-12-113, § 132L-117-170, filed 6/7/23, effective 7/8/23. Statutory Authority: RCW 28B.50.140 and chapter 34.05 RCW. WSR 04-19-062, § 132L-117-170, filed 9/15/04, effective 10/16/04. Statutory Authority: RCW 28B.50.140(10). WSR 90-17-060 (Order A-4(90)), § 132L-117-170, filed 8/14/90, effective 9/14/90.]

REPEALER

The following sections of the Washington Administrative Code are repealed:

| | |
|------------------|---|
| WAC 132L-117-180 | Appeal proceedings—Appeal of fines and penalties. |
| WAC 132L-117-190 | Parking appeals committee. |
| WAC 132L-117-200 | Liability of college. |
| WAC 132L-117-210 | Designation of parking. |
| WAC 132L-117-220 | Parking within designated spaces. |
| WAC 132L-117-230 | Regulatory signs, markings, barricades, etc. |
| WAC 132L-117-240 | Speed limit. |
| WAC 132L-117-250 | Pedestrians right of way. |
| WAC 132L-117-260 | Two-wheeled motorcycles or bicycles. |
| WAC 132L-117-270 | Report of accidents. |
| WAC 132L-117-280 | Disabled and inoperative vehicles—Impounding. |
| WAC 132L-117-290 | Authority to establish parking fee. |
| WAC 132L-117-300 | Parking permit fees. |

WSR 23-21-078
PROPOSED RULES
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
(Economic Services Administration)
[Filed October 13, 2023, 5:42 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-16-126.

Title of Rule and Other Identifying Information: The department of social and health services (DSHS) is proposing to amend WAC 388-447-0001 What are the incapacity requirements for referral to the housing and essential needs (HEN) program? and 388-449-0001 What are the disability requirements for the aged, blind, or disabled (ABD) program?

Hearing Location(s): On November 21, 2023, at 10:00 a.m., virtual via Microsoft Teams or call in. Please see the DSHS website for the most up-to-date information.

Date of Intended Adoption: Not earlier than November 22, 2023.

Submit Written Comments to: DSHS Rules Coordinator, P.O. Box 45850, Olympia, WA 98504, email DSHSRPAURulesCoordinator@dshs.wa.gov, fax 360-664-6185, by November 21, 2023, at 5:00 p.m.

Assistance for Persons with Disabilities: Contact Shelley Tencza, DSHS rules consultant, phone 360-664-6036, fax 360-664-6185, TTY 711 relay service, email Tencza@dshs.wa.gov, by November 7, 2023, at 5:00 p.m.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: These amendments clarify program rules regarding disability requirements for the ABD cash program and incapacity requirements for the HEN referral program.

Reasons Supporting Proposal: See above.

Statutory Authority for Adoption: RCW 74.04.050 and 74.08.090.

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

Name of Proponent: DSHS, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation, and Enforcement: Sam Del Vecchio, P.O. Box 45470, Olympia, WA 98504-5470, 564-233-1647.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. These rules are exempt as allowed under RCW 34.05.328 (5) (b) (vii) which states in part, "[t]his section does not apply to ... rules of the department of social and health services relating only to client medical or financial eligibility and rules concerning liability for care of dependents.["]

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 34.05.328 (5) (b) (vii).

Explanation of exemptions: These amendments do not impact small businesses. They only impact DSHS customers.

Scope of exemption for rule proposal:

Is fully exempt.

October 12, 2023
Katherine I. Vasquez
Rules Coordinator

SHS-5004.2

AMENDATORY SECTION (Amending WSR 18-18-007, filed 8/23/18, effective 9/23/18)

WAC 388-447-0001 What are the incapacity requirements for referral to the housing and essential needs (HEN) program? (1) For the purposes of this chapter, the following definitions apply:

- (a) "We" and "us" mean the department of social and health services.
- (b) "You" means the applicant or recipient.
- (c) "Incapacitated" means you cannot be gainfully employed due to a physical or mental impairment that is expected to continue for at least ~~((ninety))~~ 90 days from the date you apply.
- (d) "Gainfully employed" means you are performing, in a regular predictable manner, an activity usually done for pay or profit.
- ~~((d))~~ (e) "Mental impairment" means a diagnosable mental disorder.
- ~~((e))~~ (f) "Physical impairment" means a diagnosable physical illness.

(2) You must be incapacitated in order to receive a HEN referral.

(3) We determine if you are incapacitated when:

- (a) You apply for a referral to the HEN program;
- (b) You become gainfully employed; or
- (c) ~~((You obtain work skills by completing a training program;~~
- ~~(d) We receive new information that indicates you may be able to work; or~~
- ~~(e))~~ Your incapacity authorization period ends.

(4) We deny your HEN referral if you are gainfully employed at the time of application ~~((for referral to the HEN program. "Gainfully employed" means you are performing, in a regular predictable manner, an activity usually done for pay or profit and earning more than the substantial gainful activity standard defined by the Social Security Administration (SSA)).~~

(5) We do not consider you to be gainfully employed if you are working:

- (a) Under special conditions that go beyond providing reasonable accommodation; or
- (b) Occasionally or part-time because your impairment limits the hours you are able to work compared to unimpaired workers in the same job.

(6) We determine you are incapacitated if you are:

- (a) Eligible for the aged, blind, or disabled (ABD) cash assistance program;
- (b) Approved through the progressive evaluation process (PEP). The PEP is a sequence of eight steps described in WAC 388-447-0030 through 388-447-0100;
- (c) Eligible for services from the developmental disabilities administration (DDA);
- (d) Diagnosed as having an intellectual disability based on a full scale score of ~~((seventy))~~ 70 or lower on the Wechsler adult intelligence scale (WAIS);
- (e) Eligible for long-term care services from the aging and long-term support administration (ALTSA);
- (f) Released from a medical institution where you received services from ALTSA within the past 90 days; or

(g) Released from inpatient treatment for a mental impairment within the past 90 days if:

- (i) The release from inpatient treatment was not against medical advice; and
 - (ii) You were discharged into outpatient mental health treatment.
- (7) If you have a physical or mental impairment or are impaired due to a substance use disorder, and do not meet the other incapacity criteria in subsection (6)(c) through (g) of this section, we decide if you are incapacitated by applying the PEP.

(8) In determining incapacity, we consider only your ability to perform basic work-related activities. "Basic work-related activities" are activities that anyone would be required to perform in a work setting. They consist of: Sitting, standing, walking, lifting, carrying, handling; and other physical functions (including manipulative or postural functions such as pushing, pulling, reaching, handling, stooping, or crouching), seeing, hearing, communicating, remembering, understanding and following instructions, responding appropriately to supervisors, ~~((and))~~ co-workers, ~~((tolerating the pressures of a))~~ and usual work ((setting)) situations, maintaining appropriate behavior, using judgment, and adapting to changes in a routine work setting.

[Statutory Authority: RCW 74.04.050, 74.040.055 [74.04.055], 74.04.057, 74.08.090, and 2018 c 48. WSR 18-18-007, § 388-447-0001, filed 8/23/18, effective 9/23/18. Statutory Authority: RCW 74.04.005, 74.04.050, 74.04.055, 74.04.057, 74.08.090, 74.08A.100, 74.04.770, 74.08.025, 74.62.030, and 2013 2nd sp.s. c 10. WSR 13-24-044, § 388-447-0001, filed 11/26/13, effective 1/1/14.]

AMENDATORY SECTION (Amending WSR 23-01-057, filed 12/14/22, effective 1/14/23)

WAC 388-449-0001 What are the disability requirements for the aged, blind, or disabled (ABD) program? (1) For the purposes of this chapter, the following definitions apply:

(a) "We" and "us" ~~((refer to))~~ mean the department of social and health services.

(b) "You" means the applicant or recipient.

(c) "Disabled" means the inability to engage in any substantial gainful activity (SGA) by reason of any medically determinable physical or mental impairment(s) which has lasted or can be expected to last for a continuous period of not less than 12 months with available treatment or result in death.

(d) "Gainfully employed" means you are performing, in a regular predictable manner, an activity usually done for pay or profit.

~~((d))~~ (e) "Physical impairment" means a diagnosable physical illness.

~~((e))~~ (f) "Mental impairment" means a diagnosable mental disorder. We exclude any diagnosis of or related to a substance use disorder.

(2) We ~~((determine))~~ review if you ~~((are likely to be disabled))~~ meet disability requirements when:

(a) You apply for ABD cash benefits;

(b) You become gainfully employed; or

~~((You obtain work skills by completing a training program; or~~

~~(d) We receive new information that indicates you may be employable))~~ A disability review is required under WAC 388-449-0150.

(3) We do not consider you to be gainfully employed if you are working:

(a) Under special conditions that go beyond providing reasonable accommodation; or

(b) Occasionally or part-time because your impairment limits the hours you are able to work compared to unimpaired workers in the same job.

~~((We determine you are likely to be disabled if:))~~ (4) You are likely to meet disability requirements if:

(a) You are determined to meet SSA disability criteria by the Social Security Administration (SSA);

(b) You are determined to meet SSA disability criteria by disability determination services (DDDS) based on the most recent DDDS determination;

~~(c) ((The Social Security Administration (-)) SSA((+))~~ stops your supplemental security income (SSI) payments solely because you are not a citizen;

(d) You are eligible for services through the developmental disabilities administration (DDA) for a medical condition that is expected to last 12 months or more or result in death;

(e) You are eligible for long-term care services from the aging and long-term support administration (AL TSA) for a medical condition that is expected to last 12 months or more or result in death;

(f) You have been civilly committed to eastern or western state hospital;

(g) You have been placed in eastern or western state hospital for an offense you have been found not guilty by reason of insanity;

~~((+))~~

(h) You have been diagnosed as having an intellectual disability based on a full scale score of 70 or lower on the Wechsler adult intelligence scale (WAIS); or

(i) You are approved through the sequential evaluation process (SEP) defined in WAC 388-449-0005 through 388-449-0100. The SEP is the sequence of five steps. Step 1 considers whether you are currently working. Steps 2 and 3 consider medical evidence and whether you are likely to meet or equal a listed impairment under Social Security's rules. Steps 4 and 5 consider your residual functional capacity and vocational factors such as age, education, and work experience in order to determine your ability to do your past work or other work.

~~((+4))~~ (5) If you have a physical or mental impairment and you are impaired by a substance use disorder and do not meet the other disability criteria in subsections (2) (a) - ((+4)) (c) of this section, we decide if you are eligible for ABD cash by applying the sequential evaluation process described in WAC 388-449-0005 through 388-449-0100. You ((aren't)) are not eligible for ABD cash benefits if you are disabled primarily because of a substance use disorder.

~~((+5))~~ (6) In determining disability, we consider only your ability to perform basic work-related activities. "Basic work-related activities" are activities that anyone would be required to perform in a work setting. They consist of: Sitting, standing, walking, lifting, carrying, handling, and other physical functions (including manipulative or postural functions such as pushing, pulling, reaching, handling, stooping, or crouching), seeing, hearing, communicating, remembering, understanding and following instructions, responding appropriately to supervisors, ~~((and)) ((coworkers))~~ co-workers, and usual work

situations, (~~((tolerating the pressures of a work setting,))~~) maintaining appropriate behavior, and adapting to changes in a routine work setting.

~~((6))~~ (7) We determine you are not likely to meet (~~SSI~~) disability criteria if SSA denied your application for SSI or Social Security Disability Insurance (SSDI) based on disability in the last 12 months unless:

- (a) You file a timely appeal with SSA;
- (b) SSA decides you have good cause for a late appeal; or
- (c) You give us medical evidence of a potentially disabling condition that SSA did not consider or medical evidence confirming your condition has deteriorated.

[Statutory Authority: RCW 74.04.005, 74.04.0052, 74.04.050, 74.04.055, 74.04.057, 74.04.510, 74.04.655, 74.04.770, 74.04.805, 74.08.025, 74.08.043, 74.08.090, 74.08.335, 74.08A.100, 74.62.030, and 2022 c 297 § 205(22). WSR 23-01-057, § 388-449-0001, filed 12/14/22, effective 1/14/23. Statutory Authority: RCW 74.04.005, 74.04.050, 74.04.0052, 74.04.055, 74.04.057, 74.04.510, 74.04.655, 74.04.770, 74.08.043, 74.08.090, 74.08.335, 74.08A.100, 74.09.035, 74.09.530, 74.62.030, and 41.05.021. WSR 22-07-020, § 388-449-0001, filed 3/8/22, effective 4/8/22. Statutory Authority: 2014 c 218, 2011 1st sp.s. c 15, RCW 74.04.005, 74.04.050, 74.04.055, 74.04.057, 74.08.090, 74.08A.100, 74.04.770, 74.62.030, 41.05.021, 74.09.035, and 74.09.530. WSR 15-03-031, § 388-449-0001, filed 1/12/15, effective 2/12/15. Statutory Authority: RCW 74.04.005, 74.04.050, 74.04.055, 74.04.057, 74.08.090, 74.08A.100, 74.04.770, 74.62.030, and 2013 2nd sp.s. c 10. WSR 13-24-040, § 388-449-0001, filed 11/26/13, effective 1/1/14. Statutory Authority: RCW 74.04.005, 74.04.050, 74.04.055, 74.04.057, 74.04.510, 74.08.090, 74.08A.100, 74.04.770, 74.04.0052, 74.04.655, 74.08.043, 74.08.335, and 2011 1st sp.s. c 36. WSR 12-10-042, § 388-449-0001, filed 4/27/12, effective 6/1/12.]

WSR 23-21-080
PROPOSED RULES
OFFICE OF
ADMINISTRATIVE HEARINGS
[Filed October 16, 2023, 8:31 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-16-080.

Title of Rule and Other Identifying Information: Agency organization—Public records, chapter 10-04 WAC.

Hearing Location(s): On Monday, November 27, 2023, at 10:30 a.m., virtual via Microsoft Teams or call in. See the office of administrative hearings (OAH) website at <https://oah.wa.gov/Content-Area-Management/Rule-Making-Hub/Rulemaking-Activities> for the most up-to-date information.

Date of Intended Adoption: No sooner than November 28, 2023.

Submit Written Comments to: Johnette Sullivan, Deputy Chief ALJ, P.O. Box 42488, Olympia, WA 98504-2488, email rulemaking@oah.wa.gov, fax 360-664-8721. To request a language interpreter or free oral translation, call 360-407-2700; see Language Assistance List (wa.gov) [contact agency for link].

Assistance for Persons with Disabilities: Contact Johnette Sullivan, deputy chief ALJ, phone 509-867-7962, fax 360-664-8721, TTY 711, email OAH_ADACoordinator@oah.wa.gov, by Wednesday, November 22, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The changes to chapter 10-04 WAC are intended to improve clarity and readability. The proposal adds "OAH" to "Office" to mean the office of administrative hearings, and clarifies the definition of the way administrative law judges are organized within the agency by divisions based on work assignments. The five divisions are as follows:

- Headquarters,
- Child and family care,
- Public assistance and health,
- Regulatory and education, and
- Unemployment insurance.

The proposal clarifies that OAH's procedures are found in Title 10 WAC.

Reasons Supporting Proposal: OAH's proposal is clearly and simply stated. The proposal meets the Public Records Act requirement for statements of general methods and operations, including the nature and requirements of formal and informal procedures. RCW 42.56.040.

Statutory Authority for Adoption: RCW 34.12.030 and 42.56.040.

Statute Being Implemented: RCW 42.56.040.

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

Name of Proponent: OAH, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation, and Enforcement: Johnette Sullivan, Deputy Chief ALJ, 2420 Bristol Court S.W., Olympia, WA 98502, 360-407-2700.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. OAH's proposed amendment does not involve rules of any of the agencies identified in RCW 34.05.328(5) for which a cost-benefit analysis is required.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.061 because this rule making is being adopted solely to conform and/or comply with federal statute or regulations. Citation of the specific federal statute or regulation and description of the consequences to the state if the rule is not adopted: [No information supplied by agency].

Is exempt under RCW 19.85.025(3) as the rules relate only to internal governmental operations that are not subject to violation by a nongovernment party; rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect; and rule content is explicitly and specifically dictated by statute.

Scope of exemption for rule proposal:

Is fully exempt.

October 10, 2023

Lorraine Lee

Chief Administrative Law Judge

OTS-5015.1

AMENDATORY SECTION (Amending WSR 18-01-144, filed 12/20/17, effective 1/20/18)

WAC 10-04-015 Definitions. The definitions set forth in RCW 42.56.010 apply throughout this chapter, unless the context clearly requires otherwise.

(1) "Case" means an adjudicative proceeding as defined in RCW 34.05.010(1).

(2) "Case file" means the same thing as "official record" while a case is pending with the office. Once a case is no longer pending with the office, "case file" means any records possessed by the office which are copies of all or part of the official record.

(3) "Days" means calendar days unless otherwise stated.

(4) "Office" and "OAH" mean((s)) the office of administrative hearings. Where appropriate, office also refers to the staff and employees of the office of administrative hearings.

(5) "Official record" means the complete record of a case, as defined in RCW 34.05.476. The official record may be either paper or electronic. The official record does not include any additional copies or drafts of documents, or notes.

(6) "Page" means one impression on a single side of a sheet of paper, or the electronic equivalent.

(7) "Public records officer" means the public records officer or designee for the office appointed by the chief administrative law judge.

(8) "Referring agency" means an agency that refers cases to the office under RCW 34.05.425 (1)(c).

[Statutory Authority: RCW 34.12.030(6). WSR 18-01-144, § 10-04-015, filed 12/20/17, effective 1/20/18.]

OTS-5016.1

AMENDATORY SECTION (Amending WSR 18-01-144, filed 12/20/17, effective 1/20/18)

WAC 10-04-025 Organization, operations, and procedures. ((The office is under the direction of)) The chief administrative law judge directs OAH. Administrative law judges preside over hearings ((in cases)) and issue initial or final orders, including findings of fact and conclusions of law. ((Administrative law judges are assigned to locations)) OAH is physically located in Olympia, Seattle, Spokane Valley, and Tacoma. OAH has five divisions: Headquarters, child and family care, public assistance and health, regulatory and education, and unemployment insurance. Procedures governing administrative proceedings and other information are available in Title 10 of the Washington Administrative Code (WAC).

[Statutory Authority: RCW 34.12.030(6). WSR 18-01-144, § 10-04-025, filed 12/20/17, effective 1/20/18.]

WSR 23-21-081
PROPOSED RULES
OFFICE OF
ADMINISTRATIVE HEARINGS
[Filed October 16, 2023, 8:32 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-03-112.

Title of Rule and Other Identifying Information: WAC 10-16-010

Procedure for complaints regarding improper conduct of an administrative law judge. This proposal explains how any person may write to the office of administrative hearings (OAH) to complain if they believe there was improper conduct of an administrative law judge, and how OAH responds to those complaints.

Hearing Location(s): On Monday, November 27, 2023, at 1:00 p.m., virtual via Microsoft Teams or call in. See the OAH website at <https://oah.wa.gov/Content-Area-Management/Rule-Making-Hub/Rulemaking-Activities> for the most up-to-date information.

Date of Intended Adoption: January 1, 2024.

Submit Written Comments to: Johnette Sullivan, Deputy Chief ALJ, P.O. Box 42488, Olympia, WA 98504-2488, email rulemaking@oah.wa.gov, fax 360-664-8721. To request a language interpreter or free oral translation, call 360-407-2700; see Language Assistance List (wa.gov) [contact agency for link].

Assistance for Persons with Disabilities: Contact Johnette Sullivan, deputy chief ALJ, phone 509-867-7962, fax 360-664-8721, TTY 711, email OAH_ADACoordinator@oah.wa.gov, by Wednesday, November 22, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The purpose of the proposal is to clarify and update our complaint procedure and increase transparency.

Reasons Supporting Proposal: The current rule has a page limit, which is not apt for email communications. The proposed rule clearly states that the complaints must be in writing. It also clearly indicates where complaints may be mailed or faxed or filed online, and how OAH will assign a manager to investigate and respond. Consistent with the practice of the Washington state commission on judicial conduct, the proposal expands to allow any person to file a written complaint.

Statutory Authority for Adoption: RCW 34.12.030.

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

Name of Proponent: OAH, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Johnette Sullivan, Deputy Chief ALJ, 2420 Bristol Court S.W., Olympia, WA 98502, 360-407-2700; and Enforcement: Donald Capp, Deputy Chief ALJ, 2420 Bristol Court S.W., Olympia, WA 98502, 360-407-2700.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. OAH's proposed amendment does not involve rules of any of the agencies identified in RCW 34.05.328(5) for which a cost-benefit analysis is required.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.061 because this rule making is being adopted solely to conform and/or comply with federal statute or regulations. Citation of the specific federal statute or regulation and description of the consequences to the state

if the rule is not adopted: [No information supplied by agency].

Is exempt under RCW 19.85.025(3) as the rules relate only to internal governmental operations that are not subject to violation by a nongovernment party; and rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect.

Scope of exemption for rule proposal:

Is fully exempt.

October 10, 2023

Lorraine Lee

Chief Administrative Law Judge

OTS-5017.2

AMENDATORY SECTION (Amending WSR 99-20-115, filed 10/6/99, effective 11/6/99)

WAC 10-16-010 Procedure for complaints regarding improper conduct of an administrative law judge. (~~((1) Administrative law judges must at all times adhere to the fundamental principles of law, fairly and equitably. Administrative law judges should be fair in their rulings and should conduct the proceedings in a judicious manner.~~

~~(2) Any interested party to an administrative proceeding may file a complaint alleging improper conduct of an administrative law judge. For purposes of this section, an interested party is a person who has a right to receive notice of the administrative hearing.~~

~~(3) A complaint concerning a decision or order shall be handled through the appeal or petition for review process. This includes initial or final orders and interim orders or discretionary rulings from which further appeal may be taken.~~

~~(4) A complaint concerning the conduct of an administrative law judge, apart from a decision from which further appeal may be filed, shall be in writing and sent to the supervising administrative law judge.~~

~~(5) The written complaint must set forth in detail all pertinent facts and information. It shall include, among other things, the name of the administrative law judge, the date of the incident, the individuals present, and any other information which would assist in investigation of the complaint. The complaint should be no more than five pages.~~

~~(6) Within ten days of receipt of a written complaint, the supervising administrative law judge shall send a letter acknowledging receipt of the complaint. The supervising administrative law judge shall conduct an investigation of the complaint. For matters no longer pending before the office of administrative hearings at the time the complaint is filed, the supervising administrative law judge shall issue a written response to the complaining party within thirty days of receipt of the complaint. However, for matters pending before the office of administrative hearings at the time the complaint is filed, the supervising administrative law judge shall issue a written response within thirty days after issuance of the administrative law judge's~~

decision. If additional time is needed, the supervising administrative law judge shall notify the complaining party in writing and indicate an expected response date.

~~(7) If, after investigation, the complaint is found to have merit, the supervising administrative law judge shall take appropriate corrective action. If disciplinary action is warranted, it shall be handled internally subject to the individual's privacy rights as in other personnel matters.~~

~~(8) Should the complaining party not be satisfied with the result of the investigation, he or she may request review of the complaint by the chief administrative law judge. The chief administrative law judge shall review all facts and information pertinent to the complaint and issue a written response. The response of the chief administrative law judge shall be final.~~

~~(9) Any inquiries concerning the grievance procedure may be made through the administrative office or any field office of the office of administrative hearings. A directory listing the names and mailing addresses of supervising administrative law judges, deputy chief administrative law judges and the chief administrative law judge will be available through these offices.)~~

(1) Administrative law judges (ALJs) will follow the law and the code of ethics for ALJs. They should make fair rulings, and treat everyone fairly, equitably, and with respect during hearings.

(2) Any person may file a complaint if they believe that an ALJ has acted improperly.

(3) The written complaint must include:

(a) The name of the ALJ;

(b) What the ALJ said or did that was improper;

(c) The date of incident;

(d) The individuals present; and

(e) Any other facts and information that would help the office of administrative hearings (OAH) investigate the complaint.

(4) A person filing a complaint must send it to OAH by mail or facsimile (fax) to the location listed on the notice or order, or by mail to 2420 Bristol Ct. S.W., P.O. Box 42488, Olympia, Washington, 98504-2488. A person may also file a complaint online at www.oah.wa.gov.

(5) OAH will acknowledge the complaint within 10 days after receiving it. A managing ALJ (manager) will investigate the complaint. If the case is no longer pending before OAH when the complaint is filed, the manager will respond to the person in writing within 30 days after receiving the complaint. If the case is pending before OAH when the complaint is filed, the manager will respond within 30 days after the ALJ issues their decision. If additional time is needed, the manager will tell the person in writing and state when the manager expects to send a response.

(6) If the investigation finds that the ALJ acted improperly, OAH will take appropriate action. If discipline is warranted, it shall be handled internally. The person who filed the complaint will not be told about any action taken against an individual judge, but may be told of policy or practice changes that result from the complaint.

(7) If the person is not satisfied with the result of the investigation, they may ask the chief administrative law judge (chief) to review the complaint. The chief will review all facts and information related to the complaint and respond in writing. The chief's response will be final.

(8) Any questions concerning the complaint procedure may be asked by calling OAH at the number listed on the order or notice, or in writing by mail or fax as explained in subsection (4) of this section.

(9) Disagreements with an ALJ's decisions or rulings must only be handled through the appeal or petition for review process, rather than this complaint process. If the complaint is only about the decisions and rulings of the ALJ, it will not be investigated.

[Statutory Authority: RCW 34.05.020 and 34.12.030. WSR 99-20-115, § 10-16-010, filed 10/6/99, effective 11/6/99.]

WSR 23-21-082

PROPOSED RULES

HEALTH CARE AUTHORITY

[Filed October 16, 2023, 11:54 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 22-15-035.

Title of Rule and Other Identifying Information: Chapter 182-52 WAC, Prescription drug affordability board; WAC 182-52-0005 Purpose, 182-52-0010 Definitions, 182-52-0015 Board members, 182-52-0020 Procedures, 182-52-0025 Meetings, 182-52-0030 Advisory groups—Purpose, participation, application process, and operations, 182-52-0035 Review of drug prices, 182-52-0040 Affordability review requirements, 182-52-0045 Drug publication and conducting affordability reviews, 182-52-0050 Data and confidentiality, 182-52-0055 Authorization to assess fines, 182-52-0060 Extension of deadlines, 182-52-0065 Fine(s) for failure to comply with information request(s), 182-52-0070 Amount of fine(s) based on culpability, 182-52-0075 Advisory notice, notice of violation, and fine(s), 182-52-0080 Appeal determination of a violation and assessed fine(s), 182-52-0085 Informal dispute resolution prior to an administrative hearing, and 182-52-0090 Administrative hearing rights.

Hearing Location(s): On November 21, 2023, at 10:00 a.m. The health care authority (HCA) holds public hearings virtually without a physical meeting place. To attend the virtual public hearing, you must register in advance https://us02web.zoom.us/webinar/register/WN_F8flPPyoSyqDs-EZHwgrLQ. If the link above opens with an error message, please try using a different browser. After registering, you will receive a confirmation email containing information about joining the public hearing.

Date of Intended Adoption: November 22, 2023.

Submit Written Comments to: HCA Rules Coordinator, P.O. Box 42716, Olympia, WA 98504-2716, email arc@hca.wa.gov, fax 360-586-9727, by November 21, 2023, by 11:59 p.m.

Assistance for Persons with Disabilities: Contact Johanna Larson, phone 360-725-1349, fax 360-586-9727, telecommunication[s] relay service 711, email Johanna.larson@hca.wa.gov, by November 10, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: To implement the prescription drug affordability board as required in SSSB 5532, chapter 153, Laws of 2022, chapter 70.405 RCW.

Reasons Supporting Proposal: See purpose.

Statutory Authority for Adoption: RCW 41.05.021, 41.05.160.

Statute Being Implemented: Chapter 70.405 RCW, SSSB 5532; RCW 41.05.021, 41.05.160.

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

Name of Proponent: HCA, governmental.

Name of Agency Personnel Responsible for Drafting: Valerie Freudenstein, P.O. Box 42716, Olympia, WA 98504-2716, 360-725-1344; Implementation and Enforcement: Mike Neuenschwander, 626 8th Avenue S.E., Olympia, WA 98504, 360-725-0944.

A school district fiscal impact statement is not required under RCW 28A.305.135.

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.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:
 Is exempt under RCW 19.85.025(3) as the rule content is explicitly and specifically dictated by statute.
 Scope of exemption for rule proposal:
 Is fully exempt.

October 16, 2023
 Wendy Barcus
 Rules Coordinator

OTS-4753.3

**Chapter 182-52 WAC
 PRESCRIPTION DRUG AFFORDABILITY BOARD**

NEW SECTION

WAC 182-52-0005 Prescription drug affordability board—Purpose.
 The prescription drug affordability board conducts reviews of drug prices, performs drug affordability reviews, and sets upper payment limits for prescription drugs.

[]

NEW SECTION

WAC 182-52-0010 Prescription drug affordability board—Definitions. The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

"**Authority**" means the health care authority, as defined in WAC 182-02-045.

"**Biological product**" has the same meaning as in 42 U.S.C. Sec. 262 (i) (1).

"**Biologics**" means biological products and biosimilars.

"**Biosimilar**" has the same meaning as in 42 U.S.C. Sec. 262 (i) (2).

"**Board**" means the prescription drug affordability board.

"**Brand name drug**" means specific legend drug products that are sold by a manufacturer under certain trademarks or patents.

"**Confidential information**" means:

(a) Specific information collected by the authority that is not publicly available for the purposes of this chapter; or

(b) Proprietary data provided by manufacturers in accordance with this chapter that is not subject to public disclosure.

"**Conflict of interest**" means an association, including a financial or personal association, that has the potential to bias or appear to bias an individual's decisions in board matters or activities.

"Device" means an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent, or other similar or related article, including a component part, or accessory which is:

- (a) Recognized in the official national formulary, or the United States Pharmacopoeia, or any supplement to them;
- (b) Intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease, in human beings or other animals; or
- (c) Intended to affect the structure or any function of the body of human beings or other animals, and which does not achieve its primary intended purposes through chemical action within or on the body of human beings or other animals and which is not dependent upon being metabolized for the achievement of its primary intended purposes.
- (d) The term "device" does not include software functions excluded under 21 U.S.C. Sec. 360j(o). See 21 U.S.C. Sec. 321 (h) (1) of the Federal Food, Drug, and Cosmetic Act.

"Drug" means a substance:

- (a) Recognized as drugs in the official United States Pharmacopoeia, official Homeopathic Pharmacopoeia of the United States, or official national formulary, or any supplement to any of them;
- (b) Intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in human beings;
- (c) Other than food, minerals, or vitamins intended to affect the structure of any function of the body of human beings; and
- (d) Intended for use as a component of any article specified in (a), (b), or (c) of this definition. "Drug" does not include devices or their components, parts, or accessories.

"Excess costs" means costs of appropriate utilization of a prescription drug that exceed the therapeutic benefit relative to other alternative treatments; or, costs of appropriate utilization of a prescription drug that are not sustainable to public and private health care systems over a 10-year time frame.

"Generic drug" has the same meaning as in RCW 69.48.020.

"Health carrier" or **"carrier"** has the same meaning as in RCW 48.43.005.

"Legend drug" means brand drug, generic drug, or biological product which is required by state law or regulation of the pharmacy quality assurance commission to be dispensed on prescription only or are restricted to use by practitioners only.

"Manufacturer" means a person, corporation, or other entity engaged in the manufacture of prescription drugs sold in or into Washington state. "Manufacturer" does not include a private label distributor or retail pharmacy that sells a drug under the retail pharmacy's store, or a prescription drug repackager.

"Out-of-pocket costs" means the amount of money the patient, another person on behalf of the patient, or entity on behalf of the patient paid to the pharmacy each time a prescription is filled, excluding the amount paid by insurance. Out-of-pocket costs include deductibles, coinsurance, and copayments for covered drugs plus all costs for drugs that are not covered.

"Prescription drug" means a drug regulated under chapter 69.41 or 69.50 RCW, including generic drugs, brand name drugs, specialty drugs, and biological products.

"Publicly available" means information that is available to the general public, whether through internet search, Freedom of Information Act request or similar request, or through purchase or subscription, and includes information submitted to or reviewed by the Food

and Drug Administration, information contained in financial statements, and information published or otherwise made available through drug information resources. "Publicly available" does not include trade secrets as defined by RCW 19.108.010 and information protected by copyright law. Publicly available information includes:

- (a) Drug name;
- (b) Drug class;
- (c) Price and pricing;
- (d) Course of treatment;
- (e) Manufacturer name;
- (f) Price increase over time;
- (g) Competitors; and
- (h) Competitor price and pricing.

"Rebate" means negotiated price concessions, discounts, however characterized, that accrue directly or indirectly to a reporting entity in connection with utilization of prescription drugs by reporting entity members including, but not limited to, rebates, administrative fees, market share rebates, price protection rebates, performance-based price concessions, volume-related rebates, other credits, and any other negotiated price concessions or discounts that are reasonably anticipated to be passed through to a reporting entity during a coverage year, and any other form of price concession prearranged with a covered manufacturer, dispensing pharmacy, pharmacy benefit manager, rebate aggregator, group purchasing organization, or other party which are paid to a reporting entity and are directly attributable to the utilization of certain drugs by reporting entity members.

"Therapeutic alternative" means a drug product that contains a different chemical structure than the drug prescribed but is in the same pharmacologic or therapeutic class and can be expected to have a similar therapeutic effect and adverse reaction profile when administered to individuals in a therapeutically equivalent dose.

"Therapeutic equivalent" means a drug product of the identical base or salt as the specific drug product prescribed with essentially the same efficacy and toxicity when administered to an individual in the same dosage regimen.

[]

NEW SECTION

WAC 182-52-0015 Prescription drug affordability board—Board members. (1) The prescription drug affordability board has five governor-appointed members with expertise in health care economics or clinical medicine. Once appointed, board members serve a five-year term.

(2) The governor may reappoint board members for additional terms.

(3) Board members cannot be an employee of, a board member of, or a consultant to any of the following:

- (a) Prescription drug manufacturer;
- (b) Pharmacy benefit manager;
- (c) Health carrier;
- (d) Prescription drug wholesale distributor; or

(e) Trade association related to (a) through (d) of this subsection.

(4) Board members can be replaced or removed under the following circumstances including, but not limited to:

- (a) Failure to participate;
- (b) Unprofessional/unethical behavior; or
- (c) Conflict of interest.

(5) If a board member violates subsection (3) or (4) of this section or other board established policies, the member may be removed from the board.

(6) Following appointment, board members must submit a conflict of interest disclosure form provided by the authority. The conflict of interest disclosure form must be submitted on an annual basis by July 1st of each year while the member is active with the board. Board members must keep their disclosure statements current and provide updated information within 30 calendar days whenever circumstances change.

(7) Board members must recuse themselves from any board activity in which they have a conflict of interest or the appearance of a conflict of interest, whether or not it is disclosed in the conflict of interest disclosure form.

(8) Following appointment and prior to participating in board activities, board members must enter into a personal services contract with the authority to be compensated for participation in the work of the board.

[]

NEW SECTION

WAC 182-52-0020 Prescription drug affordability board—Procedures. (1) The board determines by member vote who will be the board chair and vice chair.

(2) The board chair remains as the chair for the duration of their term unless there are violations as stated in WAC 182-52-0015(4).

(3) The board chair may, if they choose, step down from their chair responsibilities but can continue to be an active board member.

(4) In the absence of the board chair, the vice chair acts in their place for that meeting.

(5) If board member vacancies exist, business continues as necessary with the remaining board members, as long as a quorum exists.

(6) A simple majority of the board's membership constitutes a quorum for the purpose of conducting business. If only three board members are present for a vote, the vote must be unanimous in order to pass.

[]

NEW SECTION**WAC 182-52-0025 Prescription drug affordability board—Meetings.**

(1) The board meets at least once annually, and additionally as defined by board policy.

(2) All board meetings must be open and public, except that the board may hold executive sessions to the extent permitted by chapter 42.30 RCW.

(a) Before convening an executive session, the board chair must publicly announce the purpose for excluding the public from the executive session.

(b) The board chair must announce the executive session place, date, and time.

(c) The executive session may be extended or have the date and time changed by announcement from the board chair.

[]

NEW SECTION**WAC 182-52-0030 Prescription drug affordability board—Advisory groups—Purpose, participation, application process, and operations.**

(1) The prescription drug affordability board advisory groups provide stakeholder input to the board regarding the affordability of prescription drugs.

(2) Utilizing administrative support from the authority, the board will establish advisory groups consisting of relevant stakeholders and subject matter experts for each drug selected for a drug affordability review conducted by the board.

(a) Advisory groups will consist of patients and patient advocates for the condition treated by the drug and one representative of the prescription drug industry. Additional group members, as selected by the board may include, but are not limited to, relevant stakeholders and experts in the following subject matters:

(i) The pharmaceutical business model;

(ii) Supply chain business model;

(iii) The practice of medicine or clinical training;

(iv) Health care consumer or patient perspectives;

(v) Health care cost trends and drivers;

(vi) Clinical and health services research;

(vii) The state's health care marketplace; or

(viii) Health care provider who specializes in treating the condition for the drug being reviewed.

(b) To the extent possible, advisory group members will have experience serving underserved communities and reflect the diversity of the state with regard to race, ethnicity, immigration status, income, wealth, disability, age, gender identity, sexual orientation, and geography.

(3) Advisory group members are chosen by the authority. Once members complete the conflict of interest form, they serve on the advisory group(s) through conclusion of the current affordability review. The authority may remove or replace advisory group members for, among other reasons:

(a) Failure to participate;

(b) Unprofessional/unethical behavior; or

(c) Conflict of interest.

(4) Advisory group members cannot be an employee of, a board member of, or a consultant to any of the following:

(a) Prescription drug manufacturer (with the exception that one representative from the prescription drug industry can serve on an advisory group and may be an employee, consultant, or board member of a prescription drug manufacturer or related trade association and will not be deemed to have a conflict of interest, see subsection (2) of this section).

(b) Pharmacy benefit manager;

(c) Health carrier;

(d) Prescription drug wholesale distributor; or

(e) Trade association related to (a) through (d) of this subsection.

(5) If an advisory group member violates any of subsection (4) of this section, the member may be removed from the advisory group(s).

(6) To become a member of advisory groups, the authority will establish an application process to be maintained and posted on the authority's website.

(7) Advisory groups meet on a frequency as determined necessary by the board.

(8) Participation in advisory groups is voluntary. Members of the advisory groups are not compensated.

[]

NEW SECTION

WAC 182-52-0035 Prescription drug affordability board—Review of drug prices. (1) By June 30th of each year, using data considered relevant by the board, the board must identify legend drugs and biologics that:

(a) Have been on the market for at least seven years;

(b) Are dispensed at a retail, specialty, or mail-order pharmacy; and

(c) Are not designated by the FDA under 21 U.S.C. Sec. 360bb as a drug solely for the treatment of a rare disease or condition.

(2) The legend drugs and biologics must meet the following thresholds:

(a) Brand name drugs and biologic products that must have:

(i) A wholesale acquisition cost of \$60,000 or more per year or course of treatment lasting less than 12 months; or

(ii) A wholesale acquisition cost increase of 15 percent or more in any 12-month period or for a course of treatment lasting less than 12 months, or a 50 percent cumulative increase during any 36-month period.

(b) A biosimilar product with an initial wholesale acquisition cost that is less than 15 percent lower than the wholesale acquisition cost of the reference biological product, on the date the biosimilar becomes available on the market; and

(c) Generic drugs with a wholesale acquisition cost of \$100 or more, for a 30-day supply or course of treatment less than 30 days,

that has an increase in price of 200 percent or more in the preceding 12 months.

[]

NEW SECTION

WAC 182-52-0040 Prescription drug affordability board—Affordability review requirements. (1) The board may choose to conduct an affordability review of up to 24 legend drugs or biologics per year and consider the following:

(a) The class of the prescription drug and whether any therapeutically equivalent prescription drugs are available for sale;

(b) Input from relevant advisory groups as listed in this chapter; and

(c) The out-of-pocket cost for the drug.

(2) For drugs chosen for the affordability review, the board must determine whether the drug has led or will lead to excess costs to patients or to public or private health care systems. The board may examine publicly available and confidential information from the prescription drug manufacturer and other sources.

(3) The board, or the authority as directed by the board, may request information from the manufacturer. The requested information must be sent to the authority in the form and manner as published by the authority within 30 calendar days of the date on the request.

(4) The authority may assess a fine against a manufacturer for each failure to comply with a request for information from the board or the authority on behalf of the board. See WAC 182-52-0075 for information on notification of violation and fine(s).

[]

NEW SECTION

WAC 182-52-0045 Prescription drug affordability board—Drug publication and conducting affordability reviews. Drugs selected for an affordability review are published on the board's website before initiating the affordability review.

(1) When conducting an affordability review, the board will consider:

(a) The relevant factors contributing to the price paid for the prescription drug, including the wholesale acquisition cost, discounts, rebates, and other price concessions;

(b) The average out-of-pocket cost for the drug;

(c) The effect of the price on consumers' access to the drug in the state;

(d) Orphan drug status;

(e) The dollar value and accessibility of patient assistance programs offered by the manufacturer for the drug;

(f) The price and availability of therapeutic alternatives;

(g) Input from:

- (i) Patients affected by the condition or disease treated by the drug; and
 - (ii) Individuals with medical or scientific expertise related to the condition or disease treated by the drug;
 - (h) Any other information the drug manufacturer or other relevant entity chooses to provide; and
 - (i) The impact of pharmacy benefit manager policies on the price consumers pay for the drug.
- (2) In performing an affordability review of a drug the board may consider the following factors:
- (a) Life-cycle management;
 - (b) The average cost of the drug in the state;
 - (c) Market competition and context;
 - (d) Projected revenue;
 - (e) Off-label usage of the drug; and
 - (f) Any additional factors identified by the board.
- (3) All confidential information collected by the board or the authority under this section is not subject to public disclosure under chapter 42.56 RCW.

[]

NEW SECTION

- WAC 182-52-0050 Prescription drug affordability board—Data and confidentiality.** (1) For the purpose of reviewing drug prices and conducting affordability reviews, the board (as established in chapter 70.405 RCW) and the health care cost transparency board (established in chapter 70.390 RCW) may access all data collected under RCW 43.71C.020 through 43.71C.080 and any analysis prepared by the authority.
- (2) Advisory group members may not access or review any confidential information.
- (3) The confidential information provided by manufacturers under this chapter is not subject to public disclosure under chapter 42.56 RCW.
- (4) Any confidential information provided under this chapter may not be publicly released. Recipients of data under subsection (1) of this section must:
- (a) Follow all rules adopted by the authority regarding appropriate data use and protection; and
 - (b) Acknowledge that the recipient may be responsible for liability arising from misuse of the data and that the recipient does not have any conflicts under the Ethics in Public Service Act that would prevent the recipient from accessing or using the data.

[]

NEW SECTION

- WAC 182-52-0055 Prescription drug affordability board—Authorization to assess fines.** (1) RCW 70.405.040 allows the authority to

assess a fine(s) against a manufacturer for failure to comply with the requirements of this chapter. See WAC 182-52-0065 for fine(s) for failing to comply with information request(s) and WAC 182-52-0070 for the amount of the fine(s) based on culpability.

(2) The authority may grant an extension of time to an information request deadline under WAC 182-52-0060.

[]

NEW SECTION

WAC 182-52-0060 Prescription drug affordability board—Extension of deadlines. (1) The authority may grant:

(a) An extension of time for an information request submission deadline; or

(b) Permission to correct a previously submitted and accepted request.

(2) Extensions:

(a) The manufacturer or subcontractor may request an extension of time for an information request submission deadline or the resubmission of a request due to circumstances beyond their control affecting the manufacturer's or subcontractor's ability to submit the information by the deadline.

(b) The request for an extension must contain a detailed explanation as to the reason the manufacturer or subcontractor is unable to meet the information request deadline.

(c) The manufacturer or subcontractor must submit a request for an extension to the authority at least 10 calendar days before the applicable deadline unless the manufacturer or subcontractor is unable to meet this deadline due to circumstances beyond their control. If unable to meet the deadline, the manufacturer or subcontractor must notify the authority in writing as soon as the manufacturer or subcontractor determines that an extension is necessary.

(d) The authority may approve an extension on a case-by-case basis based on the specific circumstances or other circumstances beyond the control of the manufacturer. The authority provides written notification of an approval or denial to the manufacturer or subcontractor within 15 calendar days from the date the authority receives the request from the manufacturer or subcontractor. If the authority does not approve a request for an extension, the written notification includes the reason for the denial. Only the authority can approve or deny a request for an extension.

(e) The manufacturer or subcontractor may not appeal the authority's decision to deny an extension.

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NEW SECTION

WAC 182-52-0065 Prescription drug affordability board—Fine(s) for failure to comply with information request(s). (1) The authority may assess a fine of up to \$100,000 against a manufacturer for each

failure to comply with a request for information from the board or the authority as directed by the board.

(2) The assessment of a fine under this section is subject to review under the Administrative Procedure Act, chapter 34.05 RCW.

[]

NEW SECTION

WAC 182-52-0070 Prescription drug affordability board—Amount of fine(s) based on culpability. (1) In determining the amount of any fine, the authority considers the level of culpability associated with the violation. The levels of culpability, in the order of least severe to most severe, are as follows:

(a) **Did not know.** The manufacturer did not know (and, by exercising reasonable diligence, could not have known) the violation had occurred.

(b) **Reasonable cause.** The manufacturer knew, or by exercising reasonable diligence should have known, that the violation had taken place, but the manufacturer did not act with willful neglect.

(c) **Willful neglect - Corrected.** The violation was due to the manufacturer's intentional failure or reckless indifference, and the violation was corrected within 30 calendar days from the date the manufacturer knew or with reasonable diligence should have known of the violation.

(d) **Willful neglect - Uncorrected.** The violation was due to the manufacturer's intentional failure or reckless indifference, and the violation was not corrected within 30 calendar days from the date the manufacturer knew or with reasonable diligence should have known of the violation.

(2) Culpability and fines.

| Culpability Category | Fines Per Violation |
|-------------------------------|---------------------|
| Did not know | \$25,000 |
| Reasonable cause | \$50,000 |
| Willful neglect - Corrected | \$75,000 |
| Willful neglect - Uncorrected | \$100,000 |

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NEW SECTION

WAC 182-52-0075 Prescription drug affordability board—Advisory notice, notice of violation, and fine(s). (1) The authority will issue an advisory notice to the manufacturer for the initial request for information directing the manufacturer to comply within 30 calendar days of the request or request an extension of time to provide the required information, in accordance with WAC 182-52-0060.

(2) If the manufacturer fails to comply with the initial request for information within 30 calendar days, the authority may assess a

fine(s). The authority will mail a preliminary notice of violation to the manufacturer's last known address in a manner that provides proof of receipt by the manufacturer.

(3) The preliminary notice of violation and fine(s) will include the following information:

(a) The specific reasons and criteria that support the imposition of the assessed fine(s);

(b) The legal authority that supports the imposition of a fine(s);

(c) The amount of the fine(s); and

(d) An explanation of the manufacturer's right to request an informal dispute resolution conference.

[]

NEW SECTION

WAC 182-52-0080 Prescription drug affordability board—Appeal determination of a violation and assessed fine(s). (1) Each manufacturer to whom the authority issues a preliminary notice of violation and fine(s) may request an informal dispute resolution conference. If the manufacturer does request an informal dispute resolution conference, then the manufacturer must complete the process before requesting an administrative hearing.

(2) In lieu of an informal dispute resolution conference, the manufacturer may request an administrative hearing, under WAC 182-52-0090, in writing, in a manner that provides proof of receipt by the authority, within 28 calendar days after receipt of the notice of violation and fine(s). Upon receipt of the manufacturer's request for administrative hearing, the authority will issue a final notice of violation and fine(s) with an explanation of the manufacturer's administrative hearing rights (See WAC 182-52-0090).

(3) If the manufacturer does not request an informal dispute resolution conference or administrative hearing within 28 calendar days after receipt of the preliminary notice of violation and fine(s), the authority issues a final notice of violation with an explanation of the manufacturer's administrative hearing rights (See WAC 182-52-0090).

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NEW SECTION

WAC 182-52-0085 Prescription drug affordability board—Informal dispute resolution process prior to an administrative hearing. (1) The manufacturer may informally dispute the authority's determination of a violation under this chapter.

(2) The manufacturer must submit a request for an informal dispute resolution conference to the authority in writing, in a manner that provides proof of receipt by the authority, within 28 calendar days after receipt of the notice violation and fine(s).

(3) Requests must specify:

(a) The name of the manufacturer requesting the informal dispute resolution conference and the manufacturer's, or representative's, mailing address, telephone number, and email address (if available);

(b) The items, facts, or conclusions in the notice of violation being contested; and

(c) The basis for contesting the authority's action, including any mitigating factors upon which the manufacturer relies and the outcome the manufacturer is seeking.

(4) The conference occurs within 60 calendar days of the date the manufacturer received the authority's written acceptance of the request for a dispute resolution conference.

(5) The manufacturer must notify the authority of who will attend the dispute resolution conference on the manufacturer's behalf at least five business days before the conference.

(6) The authority may terminate the dispute resolution process at any time and will provide the manufacturer with the reason for the termination.

(7) Upon completion or termination of the informal dispute resolution process, the authority will issue a final notice of violation and fine(s).

(8) Nothing in this chapter prevents settlement discussions between the parties. All settlement discussions are informal and without prejudice to the rights of the participants in the discussions.

[]

NEW SECTION

WAC 182-52-0090 Prescription drug affordability board—Administrative hearing rights. A manufacturer has a right to an administrative hearing under chapters 34.05 RCW and 182-526 WAC, if the authority assesses a notice of violation and fine(s) against the manufacturer.

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WSR 23-21-085
PROPOSED RULES
DEPARTMENT OF
LABOR AND INDUSTRIES
[Filed October 17, 2023, 8:36 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-16-116.

Title of Rule and Other Identifying Information: Pension discount rate; amending WAC 296-14-8810 Pension tables, pension discount rate and mortality tables in chapter 296-14 WAC, Industrial insurance.

Hearing Location(s): On November 29, 2023, at 10:00 a.m., via Zoom <https://lni-wa-gov.zoom.us/j/9361655337>, Meeting ID 936 165 5337; or join by phone 253-215-8782 US (Tacoma). Find your local number <https://lni-wa-gov.zoom.us/u/kdFrdfe0fg>. The virtual meeting starts at 10:00 a.m. and will continue until all oral comments are received.

Date of Intended Adoption: January 2, 2024.

Submit Written Comments to: Suzy Campbell, Department of Labor and Industries (L&I), Insurance Services, Legal Services, P.O. Box 44270, Olympia, WA 98504-4270, email suzanne.campbell@lni.wa.gov, fax 360-902-5029, by November 29, 2023, 5:00 p.m.

Assistance for Persons with Disabilities: Contact Cristina Gaffoglio, phone 360-902-4252, fax 360-902-6509, TTY 360-902-4252, email cristina.gaffoglio@lni.wa.gov, by November 22, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The purpose of this rule making is to lower the pension discount rate (PDR) to better align with the rate of return for long term treasuries for self-insured pensions. The PDR is the interest rate used to account for the time value money when evaluating the present value of future pension payments. This rule proposes to lower the PDR for self-insured employers from 5.6 percent to 5.5 percent effective April 1, 2024.

Reasons Supporting Proposal: These reductions allow our financial statements to more accurately reflect our liabilities and overall financial position and are consistent with recommendations from our annual independent actuarial review of our rate making.

Statutory Authority for Adoption: RCW 51.04.020, 51.44.070(1), and 51.44.080.

Statute Being Implemented: RCW 51.44.070.

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

Name of Proponent: L&I, governmental.

Name of Agency Personnel Responsible for Drafting: Suzy Campbell, Tumwater, Washington, 360-902-5003; Implementation: Debra Hatzialexiou, Tumwater, Washington, 360-902-6695; and Enforcement: Mike Ratko, Tumwater, Washington, 360-902-4997.

A school district fiscal impact statement is not required under RCW 28A.305.135.

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)(b)(vi) since the purpose of this rule making is to set or adjust fees or rates pursuant to legislative standards.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules set or adjust fees under the authority of RCW 19.02.075 or that set or adjust

fees or rates pursuant to legislative standards, including fees set or adjusted under the authority of RCW 19.80.045.
 Scope of exemption for rule proposal:
 Is fully exempt.

October 17, 2023
 Joel Sacks
 Director

OTS-4788.1

AMENDATORY SECTION (Amending WSR 23-04-078, filed 1/31/23, effective 4/1/23)

WAC 296-14-8810 Pension tables, pension discount rate and mortality tables. (1) The department uses actuarially determined pension tables for calculating pension annuity values, required pension reserves, and actuarial adjustments to monthly benefit amounts.

(a) The department's actuaries calculate the pension tables based on:

- (i) Mortality tables from nationally recognized sources;
- (ii) The department's experience with rates of mortality, disability, and remarriage for annuity recipients;
- (iii) A pension discount rate of 4.0 percent for state fund pensions;
- (iv) A pension discount rate of ((5.6)) 5.5 percent for self-insured pensions, including the United States Department of Energy pensions; and
- (v) The higher of the two pension discount rates so that pension benefits for both state fund and self-insured recipients use the same reduction factors for the calculation of death benefit options under RCW 51.32.067.

(b) The department's actuaries periodically investigate whether updates to the mortality tables relied on or the department's experience with rates of mortality, disability, and remarriage by its annuity recipients warrant updating the department's pension tables.

(2) To obtain a copy of any of the department's pension tables, contact the department of labor and industries actuarial services.

[Statutory Authority: RCW 51.04.020, 51.44.070(1), and 51.44.080. WSR 23-04-078, § 296-14-8810, filed 1/31/23, effective 4/1/23; WSR 22-05-075, § 296-14-8810, filed 2/15/22, effective 4/1/22; WSR 21-02-066, § 296-14-8810, filed 1/5/21, effective 4/1/21; WSR 20-02-114, § 296-14-8810, filed 1/2/20, effective 4/1/20; WSR 19-01-096, § 296-14-8810, filed 12/18/18, effective 4/1/19; WSR 18-05-081, § 296-14-8810, filed 2/20/18, effective 4/1/18; WSR 17-05-096, § 296-14-8810, filed 2/14/17, effective 4/1/17; WSR 16-05-087, § 296-14-8810, filed 2/16/16, effective 4/1/16; WSR 15-02-061, § 296-14-8810, filed 1/6/15, effective 4/1/15.]

WSR 23-21-089

PROPOSED RULES

EMPLOYMENT SECURITY DEPARTMENT

[Filed October 17, 2023, 2:15 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 22-22-028.

Title of Rule and Other Identifying Information: WAC 192-100-070 Conditional payments and 192-120-050 Conditional payment of benefits.

Hearing Location(s): On November 21, 2023, at 9:00 a.m. PST, via Zoom, Meeting ID 811 7064 7138, Passcode 849377; or Call in +12532050468,,81170647138#,,,,*849377# US, +12532158782,,81170647138#,,,,*849377# US (Tacoma). Join Zoom meeting <https://esd-wa-gov.zoom.us/j/81170647138?pwd=aWluV2kvK3BSbERZMmd2bkhTL21tQT09>.

Date of Intended Adoption: November 22, 2023.

Submit Written Comments to: Stephanie Frazee, P.O. Box 9046, Olympia, WA 98507-9046, email rules@esd.wa.gov, phone 425-465-0313, fax 844-652-7096, by November 21, 2023.

Assistance for Persons with Disabilities: Contact Teresa Eckstein, phone 360-507-9890, fax 360-507-9890, TTY relay 711, email Teresa.eckstein@esd.wa.gov, by November 14, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: WAC 192-100-070 currently defines a conditional payment as an unemployment benefit paid after an individual has already received one benefit payment but "during a period in which the employment security department (department) questions [the individual's] continued eligibility for benefits." More clarity is needed to objectively define the beginning and end of this period during which the department is questioning the individual's continued eligibility for benefits. This rule making will also combine the definitions in WAC 192-100-070 and WAC 192-120-050 into a single rule, WAC 192-100-070.

Reasons Supporting Proposal: This proposal is necessary to provide clarity to claimants regarding the circumstances under which the department pays benefits on a conditional basis.

Statutory Authority for Adoption: RCW 50.12.010, 50.12.040, 50.20.170.

Statute Being Implemented: RCW 50.20.170.

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

Name of Proponent: Employment security department, governmental.

Name of Agency Personnel Responsible for Drafting: Stephanie Frazee, Olympia, Washington, 425-465-0313; Implementation and Enforcement: J.R. Richards, Olympia, Washington, 360-463-1079.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Stephanie Frazee, P.O. Box 9046, Olympia, WA 98507-9046, phone 425-465-0313, fax 844-652-7096, TTY relay 771 [711], email rules@esd.wa.gov, <https://esd.wa.gov/newsroom/rulemaking/>.

The proposed rule does not impose more-than-minor costs on businesses. Following is a summary of the agency's analysis showing how costs were calculated. No costs are anticipated as a result of the rule making.

October 17, 2023

Joy E. Adams
Acting Director
Employment System Policy and Integrity

OTS-4524.1

AMENDATORY SECTION (Amending WSR 16-21-013, filed 10/7/16, effective 11/14/16)

WAC 192-100-070 Conditional payments. (1) A conditional payment is:

(a) Payment issued to you after you have already received benefits but during a period in which the department questions your continued eligibility for benefits; or

(b) Payment issued when you have provided reasonable evidence of authorization to work in the United States but the department is paying benefits pending verification by the federal government.

(2) Your right to retain such payment is conditioned on the department's finding that you were eligible for benefits during the week(s) in question.

(3) ~~((You are no longer considered to be in continued claim status if you have not claimed benefits (had a break in claim) for four weeks or longer.~~

~~(4))~~ Conditional payments under subsection (1)(a) of this section:

(a) Begin:

(i) The first week in which the department detects an eligibility issue; and

(ii) When the department has provided the claimant with adequate notice that benefits are being paid conditionally.

(b) End when the department makes a determination of eligibility for benefits; and

(c) May be paid for the entire length of time necessary for the department to make an eligibility determination.

(4) If you have not claimed benefits (had a break in claim) for four weeks or longer, the department will not conditionally pay you under subsection (1)(a) of this section.

(5) A conditional payment is not considered a "determination of allowance" as provided in RCW 50.20.160(3).

(6) Conditional payments will not be made under the conditions described in WAC 192-140-200 and 192-140-210.

[Statutory Authority: RCW 50.12.010 and 50.12.040. WSR 16-21-013, § 192-100-070, filed 10/7/16, effective 11/14/16. Statutory Authority: RCW 50.12.010, 50.12.040, and 50.20.010. WSR 10-11-046, § 192-100-070, filed 5/12/10, effective 6/12/10.]

OTS-4525.1

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 192-120-050 Conditional payment of benefits.

WSR 23-21-091

PROPOSED RULES

PUBLIC DISCLOSURE COMMISSION

[Filed October 17, 2023, 4:39 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-12-001.

Title of Rule and Other Identifying Information: Title 390 WAC, Public disclosure commission. Chapter 390-20 WAC, making inflationary adjustments for lobbying reporting, amending rules for grass roots (indirect) lobbying, and clarifying miscellaneous lobbying rules. Chapters 390-05, 390-16, and 390-17 WAC, adjusting and clarifying miscellaneous provisions of the campaign finance rules regarding inflationary adjustments.

Hearing Location(s): On December 7, 2023, at 9:30 a.m., at the Public Disclosure Commission (PDC) Office, 711 Capitol Way South, Olympia, WA 98504. Remote access available. Contact pdcc@pdcc.wa.gov.

Date of Intended Adoption: December 7, 2023.

Submit Written Comments to: Sean Flynn, 711 Capitol Way South, Olympia, WA 98504, email pdcc@pdcc.wa.gov, fax 360-753-1112, by November 30, 2023.

Assistance for Persons with Disabilities: Contact Jana Greer, phone 360-753-1111, fax 360-753-1112, email pdcc@pdcc.wa.gov, by December 5, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules would make inflationary adjustments to the lobbying reporting thresholds and amend the rules for grassroots (indirect) lobbying requirements, including implementation of HB 1317 (2023) and clarifying the reporting of grassroots lobbying activities. The proposed rules would make miscellaneous changes to the lobbying reporting rules, including technical changes and other clarifications. Finally, the proposed rules would make additional inflationary adjustments for campaign finance values as a follow up to prior rule making and make miscellaneous changes to the campaign finance rules, including correcting references to reporting values that were previously adjusted for inflation.

Reasons Supporting Proposal: PDC must consider revising monetary limits and reporting values every two-to-five years. Adjustments are made by rule in recognition of the economic changes as reflected in the inflationary index recommended by the office of financial management and rounded off to be most accessible for the public. The economic conditions reflected in the current inflationary index warrant adjustments in monetary thresholds in regard to lobbying activities.

The grassroots lobbying law was amended through enactment of HB 1317 (2023). The rules for grassroots lobbying require considerations for implementation of the new law as well as addressing issues for clarification of the activities reportable for grassroots campaigns.

Amendments to the campaign finance rules, including inflationary adjustments, adopted earlier this year require additional amendments to include and correct references to reporting values.

Statutory Authority for Adoption: RCW 42.17A.110, [42.17A.]125, [42.17A.]630, [42.17A.]635, and [42.17A.]640.

Statute Being Implemented: RCW 42.17A.640.

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

Name of Proponent: PDC, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation, and Enforcement: Sean Flynn, 711 Capitol Way South, Olympia, WA 98504, pdc@pdc.wa.gov.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. PDC is not required to prepare a cost-benefit analysis under RCW 34.05.328 (5) (b).

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rule content is explicitly and specifically dictated by statute; and rules set or adjust fees under the authority of RCW 19.02.075 or that set or adjust fees or rates pursuant to legislative standards, including fees set or adjusted under the authority of RCW 19.80.045.

Scope of exemption for rule proposal:

Is fully exempt.

October 17, 2023
Sean Flynn
General Counsel

OTS-4980.3

AMENDATORY SECTION (Amending WSR 23-07-004, filed 3/1/23, effective 4/1/23)

WAC 390-05-400 Changes in dollar amounts. Pursuant to the authority in RCW 42.17A.125 that the commission may revise the monetary contribution limits and reporting thresholds and code values of the act to reflect changes in economic conditions, the previous and current amounts are:

| Code Section | Subject | Value Set in Statute (year last changed) | Previous Adjusted Value in Rule (last set in 2016) | Current Adjusted Value (last set in 2023) |
|----------------------------|---|--|--|---|
| Campaign Finance Reporting | | | | |
| .005(15) | Limit for the value of volunteer services excluded from the definition of "Contribution" | \$50 (1989) | n/a | \$200 |
| .005(21) | Reporting threshold for "Electioneering Communication" | \$1,000 (2011) | n/a | \$2,000 |
| .005(30) | Reporting threshold for "Independent Expenditure" | \$1,000 (2019) | n/a | \$2,000 |
| .005(30) | Limit for the value of volunteer campaign worker expenses exempted from threshold for "Independent Expenditure" | \$250 (2018) | n/a | \$350 |

| Code Section | Subject | Value Set in Statute (year last changed) | Previous Adjusted Value in Rule (last set in 2016) | Current Adjusted Value (last set in 2023) |
|----------------------|--|---|--|---|
| .005(46)(a) | Maximum limit for qualification as a "Remediable Violation" where no contribution limit applies | \$1,000 (2018) | n/a | \$1,500 |
| .110(8) .135(7) | Limit on eligibility for reporting exceptions by small campaigns ("mini reporting" pursuant to WAC 390-16-105 et seq.) | \$5,000 (2010) | n/a | \$7,000 |
| .207(1)(a)(i) | Incidental committee - Threshold of expenditures for registration | \$25,000 (2018) | n/a | \$35,000 |
| .235(1) | Incidental committee - Threshold for reporting top 10 contributors | \$10,000 (2018) | n/a | \$15,000 |
| .235(3)(b) | Incidental committee - Threshold for regular monthly reporting of contributions or expenditures | \$200 (2018) | n/a | \$500 |
| .220(4) | Limit for retaining accumulated unidentified contributions | \$300 (1973) | n/a | \$500 |
| .225(2) | <u>Continuing PAC - Regular monthly campaign reports - Threshold for regular monthly reporting of contributions or expenditures((-continuing PAC))</u> | \$200 (1982) | n/a | \$750 |
| .235(3)(a) | Regular monthly campaign reports - Threshold for regular monthly reporting of contributions or expenditures - PAC | \$200 (1982) | n/a | \$750 |
| .230(2) | Contributions fund-raising - Limit on amounts eligible for special reporting of fund-raising activities | \$25 - event \$50 - auction (1989) | n/a | \$100 (event) \$150 (auction) |
| .230(4) | Contributions fund-raising - Threshold for reporting identity of <u>((contributions)) contributors</u> | \$50 (1989) | n/a | \$150 |
| .235(5) & .240(2) | Contributions - Threshold for required reporting identity of contributors | \$25 (1982) | n/a | \$100 |
| .240(2) | Threshold for reporting pledges | \$100 (2019) | n/a | \$150 |
| .240(7) | Threshold for reporting expenditure activity | \$50 (1982) | n/a | \$200 |

| Code Section | Subject | Value Set in Statute (year last changed) | Previous Adjusted Value in Rule (last set in 2016) | Current Adjusted Value (last set in 2023) |
|----------------------|---|--|--|---|
| .240(9) | Threshold for reporting source of debt | \$750 (2018) | n/a | \$1,000 |
| .250 | Out-of-state PAC - Threshold for reporting contributions | \$25 - In-state (1983) \$2,550 - Out-of-state (2010) | \$2,680 (2016) | \$100 (In-state) \$4,000 (Out-of-state) |
| .265 | "Last-minute contribution" - Reporting threshold (see also RCW 42.17A.625) | \$1,000 (2001) | n/a | \$1,500 |
| .255(1) | Independent expenditure ("not otherwise reported") - Threshold for including incidental volunteer expenses | \$50 (1995) | n/a | \$200 |
| .255(2) | Independent expenditure ("not otherwise reported") - Threshold for reporting | \$100 (1973) | n/a | \$1,000 |
| .255(5) | Independent expenditure ("not otherwise reported") - Threshold for itemized expenditures | \$50 (1989) | n/a | \$200 |
| .260 | Independent expenditure (political advertising) - Threshold for reporting | \$1,000 (2001) | n/a | \$2,000 |
| <u>.305</u> | <u>Independent expenditure (electioneering communication) - Threshold for reporting the source of funding from special solicitations or other (nongeneral treasury) funds</u> | <u>\$250 (2005)</u> | <u>n/a</u> | <u>\$400</u> |
| .305 | Independent expenditure (electioneering communication) - Threshold for detailed reporting of expenditure | \$100 (2005) | n/a | \$200 |
| ((.630(1) | Applicability of provisions to persons who made contributions | \$16,000 (2010) | \$20,000 | \$20,000 *not adjusted in 2023 |
| .630(1) | Persons who made independent expenditures | \$800 (2010) | \$1,000 | \$1,000 *not adjusted in 2023)) |
| <u>.625</u> | <u>Threshold for lobbyists and lobbyist employers reporting making a last-minute contribution</u> | <u>\$1,000 (2001)</u> | <u>n/a</u> | <u>\$1,500</u> |
| <u>.630(1)</u> | <u>Aggregate threshold for special report (C-7) by nonindividuals who make contributions or independent expenditures</u> | <u>\$16,000/contributions per year (2010)</u> <u>\$800/independent expenditures per year (2010)</u> | <u>\$20,000/contributions per year</u> <u>\$1,000/independent expenditures per year</u> | <u>\$24,000 per year</u> <u>\$1,200 per year</u> |

| Code Section | Subject | Value Set in Statute (year last changed) | Previous Adjusted Value in Rule (last set in 2016) | Current Adjusted Value (last set in 2023) |
|-------------------------------------|---|---|--|---|
| .630(1) | <u>Threshold for reporting compensation paid to elected officials (or family) on the C-7 special report</u> | \$800 (2010) | n/a | \$1,200 |
| Campaign Contribution Limits | | | | |
| .405(2) | Limits on contributions to candidates: | | | |
| | - Candidates for state legislative office | \$800 (2010) | \$1,000 | \$1,200 |
| | - Candidates for county office | \$800 (2010) | \$1,000 | \$1,200 |
| | - Candidates for other state office | \$1,600 (2010) | \$2,000 | \$2,400 |
| | - Candidates for special purpose districts | \$1,600 (2010) | \$2,000 | \$2,400 |
| | - Candidates for city council office | \$800 (2010) | \$1,000 | \$1,200 |
| | - Candidates for mayoral office | \$800 (2010) | \$1,000 | \$1,200 |
| | - Candidates for school board office | \$800 (2010) | \$1,000 | \$1,200 |
| | - Candidates for hospital district | \$800 (2010) | \$1,000 | \$1,200 |
| .410(1) | - Candidates for judicial office | \$1,600 (2010) | \$2,000 | \$2,400 |
| .405(4) | State and local party and caucus committee limits on contributions to a candidate: | | | |
| | - State parties and caucus committee | \$0.80 × per registered voter (2010) | \$1.00 per registered voter | \$1.20 per registered voter |
| | - County and legislative district parties | \$0.40 × per registered voter (2010) | \$0.50 per registered voter | \$0.60 per registered voter |
| | - Limit on aggregate of all county and legislative district parties to a candidate | \$0.40 × per registered voter (2010) | \$0.50 per registered voter | \$0.60 per registered voter |
| .405(7) | Limits to political parties and caucus committees: | | | |
| | - To caucus committee | \$800 (2010) | \$1,000 | \$1,200 |
| | - To political party | \$4,000 (2010) | \$5,500 | \$6,000 |
| .405(3) | Recall - Limits to state or local official or to PAC supporting recall: | | | |
| | - State legislative office and local office | \$800 (2010) | \$1,000 | \$1,200 |
| | - Other (nonlegislative) state office and port district | \$1,600 (2010) | \$2,000 | \$2,400 |
| .405(5) | Recall - Limits for political parties and caucus committees to state or local officials or to PACs supporting recall: | | | |
| | - State parties and caucuses | \$0.80 × per registered voter (2010) | \$1.00 per registered voter | \$1.20 per registered voter |
| | - County and legislative district parties | \$0.40 × per registered voter (2010) | \$0.50 per registered voter | \$0.60 per registered voter |

| Code Section | Subject | Value Set in Statute (year last changed) | Previous Adjusted Value in Rule (last set in 2016) | Current Adjusted Value (last set in 2023) |
|--------------|--|---|--|---|
| | - Limit for all county and legislative district parties to state official up for recall or political committee supporting recall | \$0.40 × per registered voter (2010) | \$0.50 per registered voter | \$0.60 per registered voter |
| .405(12) | Threshold for contributions by political committees to be eligible to make a contribution | \$10 (from 10 persons) (1993) | n/a | \$25 (from 10 persons) |
| .420 | Limits on large contributions: | | | |
| | - Statewide office | \$50,000 - (2010) | n/a | \$75,000 |
| | - Other (nonstatewide) office | \$5,000 - other (2010) | n/a | \$7,500 |
| .442 | <u>Threshold for one political committee to be eligible to make a contribution to another political committee</u> | <u>\$10 (from 10 persons) (2011)</u> | <u>n/a</u> | <u>\$25 (from 10 persons)</u> |
| .445(3) | Maximum limit for reimbursement of candidate loan to own campaign | \$4,700 (2010) | \$6,000 | \$7,500 |
| .475 | Contribution must be made by written instrument | \$100 (2019) | n/a | \$100 |
| .600 - .640 | Lobbying disclosure and restrictions - See WAC 390-20-150 | | | |
| .710 | Code values for statement of personal financial affairs - See WAC 390-24-301 | | | |

[Statutory Authority: RCW 42.17A.110 and [42.17A.]125. WSR 23-07-004, § 390-05-400, filed 3/1/23, effective 4/1/23. Statutory Authority: RCW 42.17A.125. WSR 22-14-030, § 390-05-400, filed 6/24/22, effective 6/30/22. Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-05-400, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17A.110(1) and 2018 c 304. WSR 18-24-074, § 390-05-400, filed 11/30/18, effective 12/31/18. Statutory Authority: RCW 42.17A.110, 42.17A.125(1), and 42.17A.250 [(1)](g). WSR 16-04-080, § 390-05-400, filed 1/29/16, effective 2/29/16; WSR 14-01-010, § 390-05-400, filed 12/5/13, effective 1/5/14. Statutory Authority: RCW 42.17A.110 and 42.17A.125. WSR 13-05-012, § 390-05-400, filed 2/7/13, effective 3/10/13. Statutory Authority: RCW 42.17.110 and 42.17.125. WSR 12-10-041, § 390-05-400, filed 4/27/12, effective 5/28/12. Statutory Authority: RCW 42.17.370(1) and 42.17.690. WSR 12-01-032, § 390-05-400, filed 12/13/11, effective 1/13/12. Statutory Authority: RCW 42.17.370(1), 42.17.690, and 42.17.645. WSR 08-04-022, § 390-05-400, filed 1/28/08, effective 2/28/08. Statutory Authority: RCW 42.17.370. WSR 07-07-005, § 390-05-400, filed 3/8/07, effective 4/8/07. Statutory Authority: RCW 42.17.370 and 42.17.690. WSR 06-07-001, § 390-05-400, filed 3/1/06, effective 4/1/06. Statutory Authority: RCW 42.17.690. WSR 03-22-064, § 390-05-400, filed 11/4/03, effective 1/1/04. Statutory Authority: RCW 42.17.370 and 42.17.690. WSR 01-22-050, § 390-05-400, filed 10/31/01, effective 1/1/02. Statutory Authority: RCW 42.17.370(1). WSR 00-04-058, § 390-05-400, filed

1/28/00, effective 3/1/00. Statutory Authority: RCW 42.17.690. WSR 98-08-069, § 390-05-400, filed 3/30/98, effective 5/1/98; WSR 96-04-021, § 390-05-400, filed 1/30/96, effective 3/1/96.]

OTS-5024.1

AMENDATORY SECTION (Amending WSR 23-12-036, filed 5/30/23, effective 6/30/23)

WAC 390-16-063 Additional information regarding independent expenditures and C-6 report filing. (1) RCW 42.17A.255 requires a person not otherwise subject to the disclosure requirements of chapter 42.17A RCW to disclose an independent expenditure of \$1,000 or more that supports or opposes a candidate or ballot measure. RCW 42.17A.260 requires the disclosure of political advertising with a fair market value of \$2,000 or more that is presented to the public within 21 days of an election, that supports or opposes a ballot proposition, or that qualifies as an independent expenditure and supports or opposes a candidate.

(a) **Prorating and attributing independent expenditures that support or oppose multiple candidates or ballot measures.** Whether to disclose an independent expenditure that supports or opposes multiple candidates or ballot measures is determined by prorating and attributing the cost of the expenditure among all candidates or ballot measures that are the subject of the expenditure. Disclosure is required when:

(i) The pro rata cost for a single candidate or ballot measure reaches or exceeds the statutory threshold and none of the subject candidates are seeking election to the same office and none of the subject ballot measures are competing measures; or

(ii) The sum of the pro rata costs attributable to all candidates seeking election to the same office or the sum of the pro rata costs attributable to competing ballot measures reaches or exceeds the statutory threshold.

Example 1 (prorating): A mailer/postcard supports one candidate and one ballot measure at a total cost of \$3,200. One side of the postcard is entirely devoted to the ballot measure. The other side is split evenly between the candidate and the ballot measure. The ballot measure's pro rata share is \$2,400 (75%) and the candidate's pro rata share is \$800 (25%).

Example 2 (prorating and attributing): An independent expenditure ad appears in the newspaper two weeks before the election. The ad costs (~~(\$1,000)~~) \$2,000; 50% of the ad supports a candidate and the other 50% opposes the candidate's opponent. The independent expenditure is disclosed under RCW 42.17A.260 because the sum of the pro rata share for the two candidates who seek the same office is (~~(\$1,000)~~) \$2,000.

(b) **Disclosing independent expenditures that support or oppose multiple candidates or ballot measures.** When a pro rata, attributable cost reaches or exceeds the statutory threshold, the entire independent expenditure must be disclosed, including the amounts attributable to all candidates and ballot propositions supported or opposed by the expenditure.

(c) **Other applications of prorating and attributing independent expenditures.** Use the prorating and attribution steps explained in (a) (i) and (ii) of this section to determine when an independent expenditure as defined in RCW 42.17A.005 must comply with the "no candidate authorized this ad" sponsor identification and, if applicable, the "top 5" contributors required by RCW 42.17A.320 and WAC 390-18-010.

(2) A political committee reporting pursuant to RCW 42.17A.225, 42.17A.235 and 42.17A.240 is exempt from providing on a C-6 form the sources of any funds received by the committee for an electioneering communication, unless the committee received funds that were earmarked or otherwise designated for the communication.

(3) An out-of-state political committee must report pursuant to RCW 42.17A.305 if it sponsors an electioneering communication as defined in RCW 42.17A.005.

(4) The sponsor of an electioneering communication must report pursuant to RCW 42.17A.305 and these rules regarding electioneering communications, even if the expenditure also satisfies the definition of independent expenditure in RCW 42.17A.005 or 42.17A.255. Persons in compliance with this subsection are deemed in compliance with RCW 42.17A.255 or 42.17A.260.

(5) Any person making an expenditure that is reportable under RCW 42.17A.640, grass roots lobbying campaigns, that also satisfies the definition of electioneering communication in RCW 42.17A.005, must also file pursuant to RCW 42.17A.305 and these rules regarding electioneering communications. The report filed pursuant to RCW 42.17A.305 must identify the grass roots campaign.

[Statutory Authority: RCW 42.17A.110 and [42.17A.]125. WSR 23-12-036, § 390-16-063, filed 5/30/23, effective 6/30/23. Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-16-063, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17A.110(1) and 2018 c 304. WSR 18-24-074, § 390-16-063, filed 11/30/18, effective 12/31/18. Statutory Authority: RCW 42.17A.110(1). WSR 14-12-012, § 390-16-063, filed 5/22/14, effective 6/22/14. Statutory Authority: RCW 42.17A.110. WSR 12-03-002, § 390-16-063, filed 1/4/12, effective 2/4/12. Statutory Authority: RCW 42.17.370 and 42.17.562. WSR 06-11-132, § 390-16-063, filed 5/23/06, effective 6/23/06.]

AMENDATORY SECTION (Amending WSR 18-24-074, filed 11/30/18, effective 12/31/18)

WAC 390-16-207 In-kind contributions—Explanation and reporting.

(1) An in-kind contribution must be reported on the C-4 report. An in-kind contribution, as that term is used in the act and these rules, occurs when a person provides goods, services or anything of value, other than money or its equivalent, to a candidate or political committee free-of-charge or for less than fair market value, unless the item or service given is not a contribution according to RCW 42.17A.005 or WAC 390-17-405.

An in-kind contribution includes an expenditure that:

- Supports or opposes a candidate or a ballot measure;

- Meets the definition of contribution in RCW 42.17A.005 or WAC 390-05-210;
- Is an electioneering communication that is a contribution as provided in RCW 42.17A.310; and
- Is other than a monetary contribution made directly to a candidate or political committee.

For example, an in-kind contribution occurs when a person, after collaborating with a candidate or a candidate's agent, purchases space in a newspaper for political advertising supporting that candidate or opposing that candidate's opponent.

(2) According to RCW 42.17A.430 and WAC 390-16-238, a candidate may not use his or her campaign funds to make a contribution, including an in-kind contribution, to another candidate or a political committee. However, under RCW 42.17A.430, a candidate may use surplus funds as defined in RCW 42.17A.005 to make a contribution to a political party or caucus political committee.

(3) **Valuing in-kind contributions.**

(a) For purposes of determining the value of goods or services provided as in-kind contributions, refer to WAC 390-05-235 Definition—Fair market value.

(b) If an expenditure that constitutes an in-kind contribution is made, the value of the in-kind contribution to a particular candidate or political committee is the portion of the expense that benefits the candidate or political committee.

(4) **In-kind contributions to recipients who have limits under RCW 42.17A.405 or 42.17A.410.**

(a) If a candidate receives in-kind contributions from any person valued at more than (~~(twenty-five dollars)~~) \$25 in the aggregate for an election, the contribution is reportable by the giver and the recipient pursuant to chapter 42.17A RCW and is subject to the applicable contribution limit provided in RCW 42.17A.405 or 42.17A.410.

(b) If a bona fide political party or legislative caucus committee receives in-kind contributions from any person valued at more than (~~(twenty-five dollars)~~) \$25 in the aggregate during a calendar year, the contribution is reportable by the giver and the recipient pursuant to chapter 42.17A RCW and is subject to the applicable contribution limit provided in RCW 42.17A.405.

(c) If an elected official against whom recall charges have been filed or a political committee supporting the recall of an elected official receives in-kind contributions from any person valued at more than (~~(twenty-five dollars)~~) \$25 in the aggregate during a recall campaign, the contribution is reportable by the giver and the recipient pursuant to chapter 42.17A RCW and is subject to the applicable contribution limits provided in RCW 42.17A.405 or 42.17A.410.

(5) **Political committees that make in-kind contributions.** Except as provided for in subsection (5) of this section, a political committee that makes in-kind contributions to a candidate or political committee totaling more than (~~(fifty dollars)~~) \$50 in the aggregate during a reporting period must identify the recipient and the amount of the contribution as part of its C-4 report covering that period.

If the in-kind contribution is in the form of an expenditure that has been obligated, but not yet paid, the identity of the recipient candidate or political committee, along with a good faith estimate of the value of the contribution, must be disclosed in part 3 of Schedule B, in addition to the other information required by the C-4 report. When the expense is paid, the recipient's name and the amount of the

contribution must be disclosed on Schedule A, in addition to the other information required by the C-4 report.

If a political committee provides equipment, property or anything else of value owned, leased or controlled by it to a candidate or political committee, the contributing committee must attach a statement to its C-4 report showing the name of the candidate or political committee to whom the contribution was made and the date, description and fair market value of the in-kind contribution.

(6) **Reporting by recipients.** Except as provided in subsection (5) of this section, in-kind contributions from one source are not reportable by the recipient candidate or political committee until the aggregate value of all in-kind contributions received from that source during a reporting period is more than (~~fifty dollars~~) \$50. If this threshold is met, the in-kind contributions must be reported in part 1 of Schedule B to the C-4 report covering that reporting period.

(7) **Application of RCW 42.17A.420—Last-minute contributions.**

(a) If an expenditure that constitutes an in-kind contribution is made no later than (~~twenty-two~~) 22 days before a general election and written notice of the in-kind contribution is in the possession of the recipient candidate committee or political committee (~~twenty-two~~) 22 or more days before that general election, the contribution is not subject to the respective (~~five thousand dollars or fifty thousand dollars~~) \$7,500 or \$75,000 maximum amounts specified in RCW 42.17A.420.

(b) If an in-kind contribution is in the form of personal services donated to a campaign for the duration of the (~~twenty-one~~) 21 days before a general election, and if written notice of the value of this donation is in the possession of the recipient candidate or political committee (~~twenty-two~~) 22 or more days before the election, that in-kind contribution is not subject to the respective (~~five thousand dollars or fifty thousand dollars~~) \$7,500 or \$75,000 maximum amounts specified in RCW 42.17A.420.

[Statutory Authority: RCW 42.17A.110(1) and 2018 c 304. WSR 18-24-074, § 390-16-207, filed 11/30/18, effective 12/31/18. Statutory Authority: RCW 42.17A.110. WSR 12-03-002, § 390-16-207, filed 1/4/12, effective 2/4/12. Statutory Authority: RCW 42.17.370. WSR 09-01-068, § 390-16-207, filed 12/12/08, effective 1/12/09. Statutory Authority: RCW 42.17.370 and 42.17.562. WSR 06-11-132, § 390-16-207, filed 5/23/06, effective 6/23/06. Statutory Authority: RCW 42.17.370(1). WSR 04-12-054, § 390-16-207, filed 5/28/04, effective 6/28/04; WSR 98-12-034, § 390-16-207, filed 5/28/98, effective 6/28/98. Statutory Authority: RCW 42.17.390. WSR 94-11-016, § 390-16-207, filed 5/5/94, effective 6/5/94. Statutory Authority: RCW 42.17.370. WSR 93-22-002, § 390-16-207, filed 10/20/93, effective 11/20/93; WSR 93-16-064, § 390-16-207, filed 7/30/93, effective 8/30/93. Statutory Authority: RCW 42.17.370(1). WSR 86-04-071 (Order 86-01), § 390-16-207, filed 2/5/86; WSR 82-14-016 (Order 82-04), § 390-16-207, filed 6/28/82; Order 79, § 390-16-207, filed 6/25/76.]

OTS-4981.1

AMENDATORY SECTION (Amending WSR 23-12-036, filed 5/30/23, effective 6/30/23)

WAC 390-17-315 Political committees—Qualifications to contribute. (1) Within 180 days of making a contribution to a state office candidate, to a state official against whom recall charges have been filed, or to a political committee having the expectation of making expenditures in support of the recall of the official, a political committee shall have received contributions of (~~(\$10)~~) \$25 or more each from at least 10 individuals registered to vote in Washington state.

(2) A political committee shall have received contributions of \$25 or more each from at least 10 individuals registered to vote in Washington state before contributing to a Washington state political committee.

(3) A political committee shall maintain a list of the names and addresses of these registered voters from whom contributions are received, the amount of each contribution, and the date each contribution is received. Upon written request of the commission or other person seeking this information, the political committee shall provide the list within 14 days.

[Statutory Authority: RCW 42.17A.110 and [42.17A.]125. WSR 23-12-036, § 390-17-315, filed 5/30/23, effective 6/30/23. Statutory Authority: RCW 42.17.130 and 42.17.093. WSR 12-01-047, § 390-17-315, filed 12/14/11, effective 1/14/12. Statutory Authority: RCW 42.17.370. WSR 07-07-005, § 390-17-315, filed 3/8/07, effective 4/8/07. Statutory Authority: RCW 42.17.370(1). WSR 02-03-018, § 390-17-315, filed 1/4/02, effective 2/4/02; WSR 96-05-001, § 390-17-315, filed 2/7/96, effective 3/9/96. Statutory Authority: RCW 42.17.390. WSR 94-07-141, § 390-17-315, filed 3/23/94, effective 4/23/94. Statutory Authority: RCW 42.17.370. WSR 93-16-064, § 390-17-315, filed 7/30/93, effective 8/30/93.]

OTS-4982.3

AMENDATORY SECTION (Amending WSR 20-02-062, filed 12/24/19, effective 1/24/20)

WAC 390-20-017 Suspension of registration. Lobbyists may temporarily suspend their registration by amending the registration to indicate the months in which no lobbying will be done, no expenditures will be made for lobbying, and no compensation will be received for lobbying. The amendment must be made before the beginning of the suspension period.

(1) During the period when the suspension is effective, the PDC will not require L-2 Reports to be filed.

(2) The registration shall be reinstated upon the expiration of the suspension period indicated on the amended registration, or if the lobbyist further amends the registration in advance to indicate a new date of reinstatement. The lobbyist must update any information on the registration upon reinstatement.

(3) Notification under this rule does not suspend or modify the requirement in RCW ((42.17.150)) 42.17A.600(4) for a new registration each odd-numbered year.

[Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-20-017, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17.370(1). WSR 85-24-020 (Order 85-05), § 390-20-017, filed 11/26/85.]

AMENDATORY SECTION (Amending WSR 20-02-062, filed 12/24/19, effective 1/24/20)

**WAC 390-20-020A L-2 Reporting guide.
For Entertainment, Receptions, Travel and Educational Expenditures**

| <p align="center">Typical Expenditures* (Only permitted if receipt could not reasonably be expected to influence the performance of the officer's or employee's official duties.)</p> | <p align="center">Itemize Expense?</p> | <p align="center">Give Copy of Monthly Expense Report or Memo Report to Elected Official?</p> |
|--|--|--|
| Entertaining State Officials, Employees or Their Families: | | |
| <input type="checkbox"/> Any type of entertainment occasion costing ((\$50) <u>\$100</u>) or less | No | No |
| <input type="checkbox"/> Breakfast, lunch or dinner for legislator or other state official or employee (singly, or in conjunction with family member(s)) and total cost for occasion is: <ul style="list-style-type: none"> ◦ ((\$50) <u>\$100</u>) or less ◦ More than ((\$50) <u>\$100</u>), and amount attributable to legislator/family is more than ((\$50) <u>\$100</u>) | <p align="center">No Yes</p> | <p align="center">No Yes</p> |
| <input type="checkbox"/> Tickets to theater, sporting events, etc. | Yes | No |
| <input type="checkbox"/> Golf outing | Yes | No |
| Receptions: | | |
| <input type="checkbox"/> Reception to which the entire legislature, all members of a chamber, or any of the two largest caucuses recognized in each chamber are invited and is: <ul style="list-style-type: none"> ◦ Sponsored by a person other than a lobbyist; ◦ Attended by individuals other than legislators, lobbyists, and lobbyist employers; ◦ A social event; and ◦ Does not include a sit-down meal. | <p align="center">Yes Disclose list of attendees (submitting sign-in sheet is sufficient). A per-person cost is not required</p> | <p align="center">No</p> |
| <input type="checkbox"/> All other receptions | Yes | Yes, if the food and beverage cost for the legislator and family members exceeds \$50 |
| Travel-Related Expenditures for Officials, Employees: | | |
| <input type="checkbox"/> Travel, lodging, meals for office-related appearance or speech at lobbyist employer's annual conference | Yes | Yes |
| <input type="checkbox"/> Travel, lodging, meals for office-related tour of lobbyist employer's manufacturing plant or other facility | Yes | Yes |
| Educational Expenditures for Officials, Employees: | | |
| <input type="checkbox"/> Travel, lodging, meals, tuition to attend seminar sponsored by nonprofit organization | Yes | Yes |
| Other Lobbying-Related Items: | | |

| <p align="center">Typical Expenditures* (Only permitted if receipt could not reasonably be expected to influence the performance of the officer's or employee's official duties.)</p> | <p align="center">Itemize Expense?</p> | <p align="center">Give Copy of Monthly Expense Report or Memo Report to Elected Official?</p> |
|--|---|--|
| <p><input type="checkbox"/> Flowers costing any amount to officials, staff and/or family</p> | <p align="center">No</p> | <p align="center">No</p> |
| <p><input type="checkbox"/> Candy costing ((\$50)) \$100 or less per official or employee</p> | <p align="center">No</p> | <p align="center">No</p> |
| <p><input type="checkbox"/> Golf balls, coffee cups or other promotional items</p> | <p align="center">No</p> | <p align="center">No</p> |
| <p><input type="checkbox"/> Fruit baskets costing ((\$50)) \$100 or less per official or employee</p> | <p align="center">No</p> | <p align="center">No</p> |

Note: References to employees or staff do not constitute authority to provide impermissible items to regulatory, contracting or purchasing employees.

[Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-20-020A, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17A.110 and 42.17A.615(4). WSR 15-01-064, § 390-20-020A, filed 12/11/14, effective 1/11/15.]

AMENDATORY SECTION (Amending WSR 12-03-002, filed 1/4/12, effective 2/4/12)

WAC 390-20-025 Lobbyists expenditures—Apportionment of expenses. For the purposes of compliance with RCW 42.17A.615 (2) (a) requiring reporting of expenditures by lobbyists, a person registered and reporting as a lobbyist need only report those expenditures made or incurred for lobbying. Expenditures must be reported in sufficient detail to identify the person being lobbied and the subject of the lobbying activity. If a lobbyist is reporting expenditure activity of a grass roots (indirect) lobbying campaign, pursuant to RCW 42.17A.640 and WAC 390-20-125, such activity must be reported separately from other direct lobbying expenditures.

[Statutory Authority: RCW 42.17A.110. WSR 12-03-002, § 390-20-025, filed 1/4/12, effective 2/4/12; Order 62, § 390-20-025, filed 8/26/75.]

AMENDATORY SECTION (Amending WSR 20-02-062, filed 12/24/19, effective 1/24/20)

WAC 390-20-052 Application of RCW 42.17A.635—Reports of agency lobbying. Regarding the reporting of lobbying by public agencies pursuant to RCW 42.17A.635:

(1) The phrase "in-person lobbying" contained in RCW 42.17A.635 (5) (d) (v) (B) includes activity which is intended to influence the passage or defeat of legislation, such as testifying at public hearings, but does not include activity which is not intended to influence legislation, such as attending a hearing merely to monitor or observe testimony and debate. "In-person" lobbying includes meetings through video conferencing or other remote access through an online platform or other digital medium with visual capability.

(2) The phrase "a legislative request" contained in RCW 42.17A.635 (5)(d)(ii) includes an oral request from a member of the legislature or its staff.

(3)(a) When any subagency (i.e., department, bureau, board, commission or agency) within a state agency, county, city, town, municipal corporation, quasi-municipal corporation or special purpose district (i.e., primary agency) has independent authority to expend public funds for lobbying, that subagency may file a separate L-5 reporting the information required by RCW 42.17A.635(5).

(b) When a subagency elects to file its own, separate L-5, it must notify the PDC and the administrative head of the primary agency of its intentions electronically. The primary agency does not thereafter need to include information for the subagency in its L-5, and will have no legal obligation for the filings of the subagency.

(4) Pursuant to RCW 42.17A.635(6), certain local agencies may elect to have lobbying activity on their behalf reported by their elected officials, officers and employees in the same manner as lobbyists who register and report under RCW 42.17A.600 and 42.17A.615:

(a) Whenever such a local agency makes such an election, it shall provide the PDC with a notice electronically.

(b) After such an election, those who lobby on behalf of such local agency must register and report all lobbying activity reportable under RCW 42.17A.635(5) in the same manner as lobbyists who are required to register and report under RCW 42.17A.600 and 42.17A.615. Such a local agency shall report pursuant to RCW 42.17A.630.

(c) In order to terminate such an election, such a local agency must provide the PDC with notice electronically, and report pursuant to RCW 42.17A.635(5) thereafter.

(d) The exemptions from reportable lobbying activity contained in RCW 42.17A.635 (5)(d) apply to all agencies, whether or not they have exercised the election to report in the same manner as lobbyists who report under RCW 42.17A.600, 42.17A.615, and 42.17A.630. The exemptions contained in RCW 42.17A.610 (1), (4) and (5) do not apply to any agency.

(5) Unless an agency has elected to report its lobbying pursuant to RCW 42.17A.635(6) and subsection (3) of this section, an agency must include the reportable lobbying activity on its behalf by an elected official in its quarterly report. Such an elected official does not file any separate report of that activity.

(6) ~~((Reportable))~~ In-person lobbying by elected officials, officers and employees of an agency is not reportable unless and until:

~~(a) An (elected official does not engage in reportable in-person lobbying on behalf of an agency unless and until that))~~ elected official has expended in excess of ~~((twenty-five dollars))~~ \$100 of nonpublic funds in connection with such lobbying for or on behalf of any one or more members of the legislature or state elected officials or public officers or employees of the state of Washington during any three-month period as provided in RCW 42.17A.635 (5)(d)(v)(B).

~~(b) Other officers and employees ((do not engage in reportable in-person lobbying on behalf of their agency unless and until they) have, in the aggregate((7))):~~

(i) Expended in excess of ((twenty-five dollars)) \$100 of nonpublic funds in connection with such lobbying for or on behalf of any one or more members of the legislature or state elected officials or public officers or employees of the state of Washington ((or they have, in the aggregate,)) ; and

(ii) Engaged in such lobbying for more than four days or parts thereof during any three-month period as provided in RCW 42.17A.635 (5) (d) (v) (B).

(c) When limits in (a) or (b) of this subsection have been exceeded, the agency must report such elected official, officer, or employee as a "person who lobbied this quarter" on the front of L-5 Report and include a listing of those excess expenditures as noted on that report.

[Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-20-052, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17A.110 and 42.17A.125. WSR 14-15-015, § 390-20-052, filed 7/3/14, effective 12/1/14. Statutory Authority: RCW 42.17A.110. WSR 12-03-002, § 390-20-052, filed 1/4/12, effective 2/4/12. Statutory Authority: RCW 42.17.370(1). WSR 96-05-001, § 390-20-052, filed 2/7/96, effective 3/9/96. Statutory Authority: RCW 42.17.390. WSR 94-11-016, § 390-20-052, filed 5/5/94, effective 6/5/94. Statutory Authority: 42.17.370. WSR 91-16-072, § 390-20-052, filed 8/2/91, effective 9/2/91. Statutory Authority: RCW 42.17.370(1). WSR 85-24-020 (Order 85-05), § 390-20-052, filed 11/26/85; WSR 80-02-055 (Order 80-01), § 390-20-052, filed 1/17/80.]

AMENDATORY SECTION (Amending WSR 20-02-062, filed 12/24/19, effective 1/24/20)

WAC 390-20-110 Reporting for lobbyist employers. The official report for statement by employers of registered lobbyists as required by RCW (~~42.17.180~~) 42.17A.630 is designated "L-3." This report is available on the PDC's website, www.pdc.wa.gov, and at the PDC Office, Olympia, Washington.

[Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-20-110, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17A.110(1). WSR 17-22-071, § 390-20-110, filed 10/27/17, effective 11/27/17. Statutory Authority: RCW 42.17A.110 and 42.17A.125(2). WSR 15-01-066, § 390-20-110, filed 12/11/14, effective 1/11/15. Statutory Authority: RCW 42.17.370 and 2008 c 6 § 1303. WSR 09-01-063, § 390-20-110, filed 12/11/08, effective 1/11/09. Statutory Authority: RCW 42.17.370. WSR 05-06-070, § 390-20-110, filed 3/1/05, effective 4/1/05; WSR 04-02-028, § 390-20-110, filed 12/31/03, effective 1/31/04. Statutory Authority: RCW 42.17.370(1). WSR 02-03-018, § 390-20-110, filed 1/4/02, effective 2/4/02. Statutory Authority: RCW 42.17.370(1) and 42.17.180 (1) (h). WSR 98-01-062, § 390-20-110, filed 12/11/97, effective 1/11/98. Statutory Authority: RCW 42.17.370(1). WSR 96-01-103, § 390-20-110, filed 12/19/95, effective 1/19/96. Statutory Authority: RCW 42.17.390. WSR 95-01-074A, § 390-20-110, filed 12/16/94, effective 1/16/95. Statutory Authority: RCW 42.17.370. WSR 93-04-072, § 390-20-110, filed 1/29/93, effective 3/1/93; WSR 90-22-018, § 390-20-110, filed 10/29/90, effective 11/29/90. Statutory Authority: RCW 42.17.370(1). WSR 87-05-001 (Order 87-01), § 390-20-110, filed 2/5/87; WSR 85-24-020 (Order 85-05), § 390-20-110, filed 11/26/85; WSR 84-05-018 (Order 84-01), § 390-20-110, filed 2/10/84; Order 62, § 390-20-110, filed 8/26/75.]

AMENDATORY SECTION (Amending WSR 20-02-062, filed 12/24/19, effective 1/24/20)

WAC 390-20-125 Registration and reporting by sponsors of grass roots lobbying campaigns. The official report for registration and reporting by sponsors of grass roots lobbying campaigns as required by RCW 42.17A.640 is designated "L-6." Hard copies of this report are available for download on the PDC's website, pdc.wa.gov, and at the PDC Office, Olympia, Washington. Any attachments shall be on 8-1/2" x 11" white paper.

(1) Grass roots lobbying, also known as indirect lobbying, as set forth in RCW 42.17A.640, involves an appeal to the public to solicit, urge, or encourage the public to influence legislation. Grass roots (indirect) lobbying is distinguished from direct lobbying of a legislator, state official, or state agency, which may require registration and reporting separately, pursuant to RCW 42.17A.600 and 42.17A.615.

(2) The presentation of a campaign may include any advertising displays, newspaper ads, billboards, signs, brochures, articles, tabloids, flyers, letters, radio or television presentations, digital communication, or other means of mass communication to the public. The commission will apply the definition of "mass communication," as set forth in WAC 390-05-290, as relevant to this section.

(a) Internal communications by a membership organization that are directed and limited to the members of that organization do not constitute lobbying, as defined under RCW 42.17A.005. The commission will use the criteria set forth under WAC 390-05-515 to assist in determining whether a communication is primarily limited to the members within an organization.

(b) The publication or dissemination of news reporting activities by working members of the press, radio, digital media, or television, where no payment for the content has been received and where payment for the space or time of such content is not normally required, is exempt from registration and reporting as provided under RCW 42.17A.610(3).

(3) The sponsor of a grass roots lobbying campaign is the person or persons paying for the presentation of the campaign to the public.

(a) A lobbyist may report for a grass roots lobbying campaign on the L-2 Report, pursuant to RCW 42.17A.615, if the lobbyist's employer is the only sponsor of the campaign, and if the lobbyist employer is the only contributor to the campaign. Any expenditure for the grass roots lobbying campaign must be identified clearly as an expenditure of the campaign, separately reported from other lobbying expenditures on the L-2 Report, and must include the same details as required to be reported under RCW 42.17A.640.

(b) If the campaign has more than one sponsor, including more than one lobbyist employer (for example a group or coalition of persons making separate expenditures in support of the campaign), the sponsors must register collectively as a grass roots lobbying campaign on the L-6 Report and report all activity on the L-6 Report.

(4) Expenditures made on behalf of a grass roots lobbying campaign must be reported by financial category, pursuant to RCW 42.17A.640 (2) (b), with sufficient details to provide the public a reasonable understanding of the nature and scope of the expenditure, including:

(a) Advertising - Any advertising or other form of mass communication must be segregated by media type, including:

- (i) The name and address of any commercial advertiser that sold the advertising;
- (ii) The name and location of each publication, outlet, or platform where the advertisement or communication appeared;
- (iii) The date or dates that the advertising or communication was broadcast, distributed, published, or otherwise presented to the public; and
- (iv) A description of the major work components or tasks that were provided by media type, in such detail as incorporated from WAC 390-18-050(7).
- (b) Entertainment - Any expenditures on entertainment made in furtherance of the campaign must be reported. However, entertainment provided to or on behalf of a legislator or state official may need to be reported as direct lobbying, pursuant to RCW 42.17A.615.
- (c) Office expenses - Any equipment, office space, staffing or other services purchased with campaign contributions, or used exclusively for the grass roots lobbying campaign, must be reported and itemized. If office expenses are paid exclusively by an organizational sponsor's general treasury funds, only the proportional campaign use of such office expenses must be reported as follows:
- (i) The salaries and wages paid to any employee of the sponsor or contractor who works more than 20 hours a week on any administrative, secretarial, or other support for the campaign; and
- (ii) The purchase or rental value of any equipment or property used primarily for campaign purposes.
- (d) Consultants - Any contractual or other payments made to any professional service provider, or other third party, for campaign purposes must be reported, including the name and address of the provider and a description of the services provided.

[Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-20-125, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17A.110(1). WSR 17-22-071, § 390-20-125, filed 10/27/17, effective 11/27/17. Statutory Authority: RCW 42.17A.110 and 42.17A.125. WSR 14-15-015, § 390-20-125, filed 7/3/14, effective 12/1/14. Statutory Authority: RCW 42.17A.110. WSR 12-03-002, § 390-20-125, filed 1/4/12, effective 2/4/12. Statutory Authority: RCW 42.17.370(1). WSR 02-03-018, § 390-20-125, filed 1/4/02, effective 2/4/02. Statutory Authority: RCW 42.17.370. WSR 90-16-083, § 390-20-125, filed 7/31/90, effective 8/31/90. Statutory Authority: RCW 42.17.370(1). WSR 85-24-020 (Order 85-05), § 390-20-125, filed 11/26/85; Order 62, § 390-20-125, filed 8/26/75.]

AMENDATORY SECTION (Amending WSR 20-02-062, filed 12/24/19, effective 1/24/20)

WAC 390-20-143 Application of lobbying provisions to organizations. (1) A lobbyist other than an individual will be considered to have properly restricted its lobbying activities and is eligible for the RCW 42.17A.610(5) "casual lobbying" exemption during any three-month period in which its agents or employees do not make an expenditure of more than (~~thirty-five dollars~~) \$100 for or on behalf of legislators, state elected officials, public officers or employees of the state of Washington.

(2) A lobbyist other than an individual which does sponsor or coordinate or directly make unreported expenditures exceeding (~~thirty-five dollars~~) \$100 during a three-month period, as fully described in subsection (1) of this section, must register and report as required by RCW 42.17A.600 and 42.17A.615: Provided, that it can satisfy these requirements by having an individual agent (a) register and report as a lobbyist, and (b) include a report of these and all other lobbying expenditures made on behalf of the individual during that three-month period as part of the L-2 Report.

(3) An entity including, but not limited to, a law firm, consulting firm, advertising agency, or other similar organization, which receives or expects to receive compensation for lobbying from any person, must register and report as a lobbyist pursuant to RCW 42.17A.600 and 42.17A.615: Provided, that membership dues or contributions to a nonprofit organization made for the purpose of promoting a general interest and not in return for lobbying on behalf of any specific member or contributor will not be regarded as compensation for this purpose. Registration statements and reports must list as the lobbyists both the firm or organization and each individual acting on its behalf. The person paying the compensation must report under RCW 42.17A.630 as a lobbyist's employer.

[Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-20-143, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17A.110 and 42.17A.125. WSR 14-15-015, § 390-20-143, filed 7/3/14, effective 12/1/14. Statutory Authority: RCW 42.17A.110. WSR 12-03-002, § 390-20-143, filed 1/4/12, effective 2/4/12. Statutory Authority: RCW 42.17.370(1). WSR 85-24-020 (Order 85-05), § 390-20-143, filed 11/26/85. Statutory Authority: RCW 42.17.160(4) and 42.17.370(1). WSR 78-07-038 (Order 99), § 390-20-143, filed 6/26/78.]

AMENDATORY SECTION (Amending WSR 20-02-062, filed 12/24/19, effective 1/24/20)

WAC 390-20-150 Changes in dollar amounts. Pursuant to the commission's authority in RCW 42.17A.125 to revise the monetary reporting thresholds found in chapter 42.17A RCW to reflect changes in economic conditions, the following revisions are made:

| ((Statutory Section | Subject Matter | Amount and Date Enacted or Last Revised | Revision Effective December 1, 2014 |
|----------------------------|---|--|--|
| .600(1)(i) | Lobbyist employer's members or funders | \$500 (1973) | \$1,450 |
| .610(5) | Casual lobbying threshold | \$25 (1982) | \$35 |
| .615(2)(a) | Itemize entertainment expenditures | \$25 (1978) | \$50 |
| .630(2)(a) | Contributions disclosed by lobbyist employer on monthly report (L-3e) | \$100 (1990) | \$110 |
| .635(5)(d)(v) | Nonpublic funds spent on gifts provided by public agency | \$15 (1979) | \$25 |

| <u>((Statutory Section</u> | <u>Subject Matter</u> | <u>Amount and Date Enacted or Last Revised</u> | <u>Revision Effective December 1, 2014</u> |
|----------------------------|-----------------------|--|--|
| .640(1) | Grass-roots lobbying | \$500/ \$1,000 (1985) | \$700/ \$1,400)) |

| <u>Code Section</u> | <u>Subject</u> | <u>Value Set in Statute (and last changed)</u> | <u>Previous Adjusted Value in Rule (last changed in 2014)</u> | <u>Current Adjusted Value (effective ...2023)</u> |
|--------------------------------|---|--|---|---|
| <u>42.17A.600(1)</u> | <u>Threshold for reporting members of a lobbyist employer entity who pay dues or fees</u> | <u>\$500 (1973)</u> | <u>\$1,450</u> | <u>\$4,000</u> |
| <u>42.17A.610(5)</u> | <u>Limit for "casual lobbying" exemption from registration for lobbying expenses in a three-month period</u> | <u>\$25 (1982)</u> | <u>\$35</u> | <u>\$100</u> |
| <u>42.17A.615(2)</u> | <u>Threshold for itemizing expenditures on entertainment and food or beverage for public officials</u> | <u>\$25 (entertainment) (1982)</u> <u>\$50 (food & beverage) (1995)</u> | <u>\$50</u> <u>n/a</u> | <u>\$100</u> <u>\$100</u> |
| <u>42.17A.630(2)</u> | <u>Threshold for reporting monthly contributions by lobbyist employer</u> | <u>\$100 (1990)</u> | <u>\$110</u> | <u>\$250</u> |
| <u>42.17A.635 (5)(d)(v)(B)</u> | <u>Limit on expenditure of nonpublic funds on behalf of any public officer in connection with agency lobbying</u> | <u>\$15 (1979)</u> | <u>\$25</u> | <u>\$100</u> |
| <u>42.17A.640(1)</u> | <u>Threshold of expenditure activity for registration as a grassroots lobbying campaign</u> | <u>\$500 per month (1985)</u> <u>\$1,000 per three-month period (1985)</u> | <u>\$700</u> <u>\$1,400</u> | <u>\$1,500</u> <u>\$3,000</u> |
| <u>42.17A.640(2)</u> | <u>Threshold for reporting the identity of contributors to a grassroots campaign</u> | <u>\$25 (1985)</u> | <u>n/a</u> | <u>\$100</u> |

[Statutory Authority: RCW 42.17A.110(1), 2019 c 428, and 2019 c 261. WSR 20-02-062, § 390-20-150, filed 12/24/19, effective 1/24/20. Statutory Authority: RCW 42.17A.110 and 42.17A.125. WSR 14-15-015, § 390-20-150, filed 7/3/14, effective 12/1/14.]

WSR 23-21-093

PROPOSED RULES

CHARTER SCHOOL COMMISSION

[Filed October 18, 2023, 7:18 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-14-036.

Title of Rule and Other Identifying Information: Chapter 108-60 WAC, Complaints against charter schools.

Hearing Location(s): On November 21, 2023, at 12:00 p.m., via Zoom <https://zoom.us/j/3607255511>; or dial 646-558-8656, Meeting ID 360 725 5511.

Date of Intended Adoption: December 14, 2023.

Submit Written Comments to: Charmaine McCladdie, 1068 Washington Street S.E., email charterschoolinfo@k12.wa.us, by November 21, 2023.

Assistance for Persons with Disabilities: Contact Charmaine McCladdie, phone 360-725-5511, TTY 800-833-6388, email charterschoolinfo@k12.wa.us, by November 7, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The commission proposes to create new rules in order to comply with RCW 28A.710.185 and 28A.710.187. The new rules include: Creation of a policy statement for complaints against charter schools; description of requirements for charter schools regarding school complaint processes; description of the new commission school complaint process; and explanation of how complaints will be used.

Reasons Supporting Proposal: The new rules are proposed to align with RCW 28A.710.185, which requires the commission to establish and maintain on its website an online system for students who attend charter schools, and the parents of those students, to submit complaints about the operation and administration of charter schools, and requires the commission to adopt rules to implement this section. The new rules also align with RCW 28A.710.187, which requires each charter school to prominently post and maintain on its website information about the school's process and instructions for submitting complaints, a designated point of contact at the charter school, and a link to the complaint system of the commission.

Statutory Authority for Adoption: RCW 28A.710.070, 28A.710.100, 28A.710.170, 28A.710.185, 28A.710.187, 28A.710.190, 28A.710.200.

Statute Being Implemented: RCW 28A.710.185, 28A.710.187.

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

Name of Proponent: Charter school commission, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation, and Enforcement: Jessica de Barros, 1068 Washington Street S.E., Olympia, WA 98501, 360-725-5511.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rule content is explicitly and specifically dictated by statute.

Scope of exemption for rule proposal:

Is fully exempt.

October 18, 2023
Jessica de Barros

OTS-5020.2

**Chapter 108-60 WAC
COMPLAINTS AGAINST CHARTER SCHOOLS**

NEW SECTION

WAC 108-60-010 Policy statement. RCW 28A.710.185 authorizes the Washington state charter school commission to adopt rules to implement an online system for students enrolled in charter public schools and parents or guardians of those students to submit complaints about the operation and administration of charter public schools. RCW 28A.710.187 directs charter public schools to prominently post and maintain on their website the school's process and instructions for submitting complaints by its students and parents about the operation or administration of the school.

In addition to RCW 28A.710.187, charter public schools authorized by the commission are required to have a written complaint process that includes an appeal process. There are additional complaint processes available to students and parents including, but not limited to, those found in chapters 392-172A and 392-190 WAC. The commission process for receiving complaints supplements these processes for complaints against schools within the commission's authority. Schools authorized by the commission must have a complaint process that is accessible to the school community. Schools are encouraged to utilize any complaints the school receives to improve the school's complaint process, operations, and communications within the school community.

This chapter applies to charter public schools authorized by the Washington state charter school commission.

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NEW SECTION

WAC 108-60-020 School complaint process. (1) Charter public schools must have a procedure to resolve complaints by students or parents or guardians about the school's operation or administration of the charter public school. The requirement includes, but is not limited to, the requirements established under RCW 28A.710.187.

(2) Charter public schools must provide students and parents or guardians, information on the school's complaint process a minimum of two times each school year. If the school communicates information electronically to students and parents or guardians, an electronic link to the website information about the school's process and instructions for submitting complaints must be included.

(3) Charter public schools must provide students and parents or guardians information on the existence of and the location of the school's student/family handbook a minimum of two times each school year. If the student/family handbook is available electronically, the school must include an electronic link to the student/family handbook, along with specific instruction on where the complaint process is within the student/family handbook.

(4) Charter public schools must provide all enrolled students and their parents or guardians the opportunity to provide anonymous feedback on the school's complaint process at least once during each school year. The purpose of gathering feedback is to support the school in continuous improvement of its communications with families. If the opportunity provided by the school is at a meeting or forum, the school must notify the commission at least two weeks before the meeting or forum. If the opportunity provided by the school is through written feedback, the school must promptly provide a copy of the request to students/parents for written feedback to the commission. Within 30 days of the deadline for feedback from students/parents, the school must provide a written summary to the commission of the feedback received from students/parents, and a response to the feedback, including any steps the school plans to take to improve the process if needed.

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NEW SECTION

WAC 108-60-030 Commission school complaint process. (1) The complaint process in this chapter is for use by charter school students and their parents or guardians in making complaints against the charter public school currently attended by the student. For purposes of this complaint process, a charter school student must (a) currently attend the charter public school that is the subject of the complaint to the commission, (b) have attended the school within the 90 days prior to filing the complaint with the commission, or (c) attended the school at the time the complaint was submitted to the school through the school's complaint process.

(2) Before filing a complaint with the commission, the school's complaint process should be followed. A student or a parent/guardian of the student should first submit any complaint about the operation or administration of a public charter school to the charter public school using the school's complaint process.

(3) If after completing the school's complaint process (including the appeals process), the complaint remains unresolved, the student or the parent/guardian may submit the complaint to the commission through the commission's online complaint process on the Washington state charter school commission website.

(4) Complaints must be filed with the commission within 90 days of the final decision under the school's complaint process.

(5) The commission will acknowledge receipt of the submitted complaint by contacting the student or parent/guardian within 10 business days.

(a) If a complaint is filed with the commission before the completion of the school's complaint process, the commission will notify the school and the student/parent, and the commission will send the

complaint to the school so that the complaint can be addressed through the school's complaint process.

(b) When a complaint is sent to the school under (a) of this subsection, the school is required to promptly provide written notification to the commission regarding the final decision from the school's complaint process and the reason(s) for the outcome of the complaint. The written notification from the school must be provided to the commission within 10 business days of the school's final decision.

(c) After a complaint has gone through the school's complaint process, the student/parent may submit the complaint through the commission's online complaint process within 90 days of the final decision from the school's complaint process.

(6) The commission will review the complaint. When a complaint is in an area within the commission's authority, the commission will determine whether an investigation is necessary and the type of investigation. An investigation may include, but is not limited to, information gathering, a more in-depth investigation during the commission's routine oversight of a school, and/or a separate investigation of the complaint. The commission will provide written notice to the student/parent and the school after the review and/or investigation.

(7) If circumstances warrant it, the commission may alter the time frames within these rules and/or the steps involved in the process.

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NEW SECTION

WAC 108-60-040 Use of complaints. (1) A complaint submitted through the commission's online process may lead to a more formal inquiry under WAC 108-40-010 through 108-40-050 and/or 108-40-110.

(2) If a school has a pattern of well-founded complaints against it, the commission may consider the pattern of well-founded complaints in performance reports, the charter contract renewal process, expansion, transition to kindergarten, or other similar decisions about the school.

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WSR 23-21-094

PROPOSED RULES

DEPARTMENT OF HEALTH

(Veterinary Board of Governors)

[Filed October 18, 2023, 7:42 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-07-007.

Title of Rule and Other Identifying Information: Apprenticeship programs for veterinary technicians. The veterinary board of governors (board) is proposing to amend WAC 246-935-060 to clarify that a registered apprenticeship program is an approved post-secondary educational pathway to qualify for licensure exams as a veterinary technician.

Hearing Location(s): On December 4, 2023, at 9:00 a.m., at the Department of Labor and Industries (L&I), 7273 Linderson Way S.W., Room S121, Tumwater, WA 98501; or virtual https://gcc02.safelinks.protection.outlook.com/ap/t-59584e83?url=https%3A%2F%2Fteams.microsoft.com%2F1%2Fmeetup-join%2F19%253ameeting_MTUzYzFjNzUtMzI1OC00OGYxLWEzYTctNjI3NjFjNGUzNTIy%2540thread.v%2F0%3Fcontext%3D%257b%2522tid%2522%253a%25221d0e217-264e-400a-8ba0-57dcc127d72d%2522%252c%2522oid%2522%253a%2522b0a413cc-861e-438f-ad33-52df6d9a4283%2522%257d&data=05%7C01%7CPoppy.Budrow%40doh.wa.gov%7C1dbe793d1c9e41c6133908db897c2b46%7C11d0e217264e400a8ba057dcc127d72d%7C0%7C0%7C638254938611041371%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IklhaWwiLCJXVCi6Mn0%3D%7C3000%7C%7C%7C&sdata=BeIN%2BYeh2B7I6nHhyHJCdDEoD9yPDxlfSdzgWB3ukIM%3D&reserved=0. The public hearing will be hybrid. Participants can attend in person at the physical location or virtually.

Date of Intended Adoption: December 4, 2023.

Submit Written Comments to: Poppy Budrow, Program Manager, P.O. Box 47852, Olympia, WA 98504-7852, email <https://fortress.wa.gov/doh/policyreview>, www.doh.wa.gov, by November 27, 2023.

Assistance for Persons with Disabilities: Contact Poppy Budrow, program manager, phone 564-669-0026, fax 360-236-2901, TTY 711, email Poppy.Budrow@doh.wa.gov, by November 27, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposal adds a registered apprenticeship program to the list of approved post-secondary educational programs an applicant may complete as part of the requirement to take the exam for licensure as a veterinary technician. This clarifies for applicants the availability of a method already allowed in this rule.

Reasons Supporting Proposal: From June 2020 through May 2022, the board worked extensively on the development of the apprenticeship program with Cascade Veterinary Clinic (CVC), SkillSource/North Central Workforce Development Board (SkillSource), and a wide variety of interested parties. Ultimately, the board expressed its support of the program and to the Washington state apprenticeship and training council (WSATC), which is the regulatory authority for approving apprenticeship programs in Washington state. At WSATC's October 2022 meeting, WSATC approved the program.

The board may currently approve the apprenticeship programs according to WAC 246-935-060(1). However, the board is proposing the amendment to make it clear that a state registered apprenticeship is an approved method for an applicant to become eligible for the veterinary technician national exam and licensure.

Statutory Authority for Adoption: RCW 18.92.030 and 18.92.128.

Statute Being Implemented: RCW 18.92.128.

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

Name of Proponent: Veterinary board of governors, governmental.

Name of Agency Personnel Responsible for Drafting: Jennifer Santiago, 111 Israel Road S.E., Tumwater, WA 98501, 360-236-2985; Implementation and Enforcement: Melissa Green, 111 Israel Road S.E., Tumwater, WA 98501, 360-236-2905.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. The proposed rule amendment clarifies existing rule language without changing effect of rule and is exempt under RCW 34.05.328 (5)(b)(iv).

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect.

Is exempt under RCW 19.85.025(4).

Explanation of exemptions: The proposed rule amendments clarify that a state registered apprenticeship is an approved method for an applicant to become eligible for the veterinary technician national exam and licensure.

Scope of exemption for rule proposal:

Is fully exempt.

October 13, 2023
Dordor Vang, DVM, Chairperson
Veterinary Board of Governors

OTS-4597.1

AMENDATORY SECTION (Amending WSR 15-14-008, filed 6/18/15, effective 7/19/15)

WAC 246-935-060 Eligibility for examination as veterinary technician. Applicants must meet one of the following criteria to be eligible for the examination.

(1) Completion of an approved postsecondary educational program for animal or veterinary technology.

(a) Completion of a program for animal or veterinary technology approved by the Committee on Veterinary Technician Education and Activities (CVTEA) of the American Veterinary Medical Association (AVMA). The board approves all institutions accredited by, and in good standing with, the AVMA.

(b) Completion of a program for animal or veterinary technology approved by the Animal Health Technologist/Veterinary Technician Program Accreditation Committee (AHT/VTPAC) of the Canadian Veterinary Medical Association (CVMA). The board approves all institutions accredited by, and in good standing with, the CVMA.

(c) Completion of a Washington state apprenticeship program registered in accordance with chapters 296-05 WAC and 49.04 RCW.

(d) Other institutions applying for board approval must meet the accreditation standards of the CVTEA. It is the responsibility of the institution to apply for approval and of a student to ascertain whether or not a school has been approved by the board.

~~((d))~~ (e) The examination may be taken no sooner than six months before graduation from the approved course of instruction.

(2) Graduation from a two-year curriculum in animal health or veterinary technology which is not accredited by the CVTEA or AHT/VTPAC plus a minimum of ~~((thirty-six))~~ 36 months of full-time experience under the supervision of a licensed veterinarian(s) who must attest to the completion of that experience.

(3) Award of a D.V.M. or V.M.D. degree or equivalent from an American Veterinary Medical Association accredited or listed college of veterinary medicine.

(4) Registration, certification, or licensure as an animal health or veterinary technician in one or more states and ~~((thirty-six))~~ 36 months of full-time experience under the supervision of a licensed veterinarian(s).

(5) Completion of a course in veterinary technician education as a member of the United States military and completion of a tour of active duty as a veterinary technician or specialist.

[Statutory Authority: RCW 18.92.030(2) and 18.92.128. WSR 15-14-008, § 246-935-060, filed 6/18/15, effective 7/19/15. Statutory Authority: RCW 18.92.030. WSR 09-21-022, § 246-935-060, filed 10/9/09, effective 11/9/09; WSR 02-02-046, § 246-935-060, filed 12/27/01, effective 1/27/02; WSR 93-12-126 (Order 368B), § 246-935-060, filed 6/2/93, effective 7/3/93; WSR 91-24-098 (Order 221B), § 246-935-060, filed 12/4/91, effective 1/4/92; WSR 91-02-060 (Order 108B), recodified as § 246-935-060, filed 12/28/90, effective 1/31/91. Statutory Authority: RCW 18.92.015 and 18.92.030. WSR 83-19-055 (Order PL 445), § 308-156-055, filed 9/19/83.]

WSR 23-21-097

PROPOSED RULES

DEPARTMENT OF LICENSING

[Filed October 18, 2023, 8:16 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-11-147.

Title of Rule and Other Identifying Information: Chapter 308-109 WAC, Motorcycle permit and endorsement requirements.

Hearing Location(s): On November 27, 2023, at 2:00 p.m., via Zoom meeting <https://dol-wa.zoom.us/j/86155634629?pwd=cYRmbGNG4kWjOanJqalUxNYNGAeVrp.1>, Meeting ID 861 5563 4629, Passcode 235384; One-tap mobile +12532158782,,86155634629#,,,,*235384# US (Tacoma), +12532050468,,86155634629#,,,,*235384# US; or dial by your location, Meeting ID 861 5563 4629, Passcode 235384. Find your local number <https://dol-wa.zoom.us/j/86155634629?pwd=cYRmbGNG4kWjOanJqalUxNYNGAeVrp.1>. If you are having difficulty joining the Zoom meeting at the time of the public hearing, please call 360-902-0131. An in-person option is available at the Highways and Licensing Building, 1125 Washington Street S.E., Olympia, WA 98504.

Date of Intended Adoption: November 28, 2023.

Submit Written Comments to: Kelsey Stone, 1125 Washington Street S.E., Olympia, WA 98504, email rulescoordinator@dol.wa.gov, by November 20, 2023.

Assistance for Persons with Disabilities: Contact Kelsey Stone, phone 360-902-0131, email rulescoordinator@dol.wa.gov, by November 17, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Creating new chapters in WAC to address criteria for issuance of motorcycle instructional permits and endorsements, for both 2-wheel and 3-wheel motorcycles. These new chapters will address the length of validity for motorcycle permit and endorsement tests.

Reasons Supporting Proposal: Currently, issuance criteria are only written in department of licensing internal policy and are not customer facing in state law or rules. This rule making will codify the requirements for issuance of a 2-wheel or 3-wheel motorcycle permit or endorsement. It will also set the length of validity for each criteria.

Statutory Authority for Adoption: RCW 46.20.510 Instruction permit—Fee—Examinations—Director may adopt and enforce rules.

Statute Being Implemented: WAC 308-109-010 Definitions, 308-109-040 Outlining requirements for 2-wheel motorcycle instruction permit and endorsement, 308-109-050 Outlining requirements for 3-wheel motorcycle instruction permit and endorsement, and 308-109-060 Reinstatement of surrendered endorsements and reciprocity.

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

Name of Agency Personnel Responsible for Drafting: Colton Myers, 1125 Washington Street S.E., Olympia, WA 98504, 360-634-5094; Implementation: Robert Willis, 1125 Washington Street S.E., Olympia, WA 98504, 360-688-3753; and Enforcement: Bryan Jackson, 1125 Washington Street S.E., Olympia, WA 98504, 360-902-3854.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. This rule making codifies criteria for issuance of motorcycle instructional

permits and endorsements and does not have any associated fiscal impacts.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules relate only to internal governmental operations that are not subject to violation by a nongovernment party; and rules adopt, amend, or repeal a procedure, practice, or requirement relating to agency hearings; or a filing or related process requirement for applying to an agency for a license or permit.

Scope of exemption for rule proposal:

Is fully exempt.

October 18, 2023

Ellis Starrett

Rules and Policy Manager

OTS-4987.2

AMENDATORY SECTION (Amending WSR 20-08-039, filed 3/24/20, effective 4/24/20)

WAC 308-109-010 Definitions. As used in this chapter, unless the context requires otherwise, the following definitions apply:

(1) "Contracted training provider" means an agency, firm, provider, organization, individual, or other entity performing services as outlined in RCW 46.20.520 and 46.81A.020 and is under contract with the department.

(2) "Student" means persons who receive a pass, fail or incomplete status on a course completion report furnished to the department.

(3) "2-wheel permit level knowledge test" is a test created/approved by the department of licensing to determine an acceptable novice knowledge level for operating a 2-wheel motorcycle. This test is valid for 365 days.

(4) "2-wheel permit level skills test" is a test created/approved by the department of licensing to determine an acceptable novice skill level for operating a 2-wheel motorcycle. This test is valid for 365 days.

(5) "2-wheel endorsement level knowledge test" is a test created/approved by the department of licensing to determine an acceptable knowledge level for operating a 2-wheel motorcycle. This test is valid for 365 days.

(6) "2-wheel endorsement level skills test is a test created/approved by the department of licensing to determine an acceptable skill level for operating a 2-wheel motorcycle. This test is valid for 365 days.

(7) "3-wheel knowledge test" is a test created/approved by the department of licensing to determine an acceptable knowledge level for operating a 3-wheel motorcycle. This test is valid for 365 days.

(8) "3-wheel skills test" is a test created/approved by the department of licensing to determine an acceptable skill level for operating a 3-wheel motorcycle. This test is valid for 365 days.

(9) "Motorcycle safety course" means any course offered by a contracted training provider and approved by the department of licensing. This also includes approved out-of-state courses.

(10) "2-wheel motorcycle instruction permit" means authorization to ride a 2-wheel motorcycle on the roads and highways of Washington. With limitations found in RCW 46.20.510.

(11) "3-wheel motorcycle instruction permit" means authorization to ride a 3-wheel motorcycle on the roads and highways of Washington. With limitations found in RCW 46.20.510.

[Statutory Authority: RCW 46.81A.020 and 46.01.110. WSR 20-08-039, § 308-109-010, filed 3/24/20, effective 4/24/20.]

NEW SECTION

WAC 308-109-040 Outlining requirements for 2-wheel motorcycle instruction permit and endorsement. (1) The requirement to add a 2-wheel motorcycle instruction permit (2W MCIP) is passing a permit level knowledge test and a permit level skills test. An approved motorcycle safety course completion (either in state or out-of-state) may waive the required tests.

(a) 2W MCIP may be added at any point the tests and/or motorcycle safety course completion (either in state or out-of-state) are valid.

(b) A valid 2W MCIP may be renewed prior to its expiration for an additional 180 days (effective the day of expiration of original 2W MCIP). Per RCW 46.20.510 the department may only issue two, 180-day permits within a five-year period.

(2) The requirement to add a 2-wheel motorcycle endorsement is **either:**

(a) Valid 2W permit level knowledge and skills tests (a valid motorcycle safety course completion may replace these tests) and valid 2W endorsement level knowledge and skills tests;

or

(b) A valid 2W MCIP and valid 2W endorsement level knowledge and skills tests.

(3) Active-duty military personnel may have all permit and endorsement level testing waived upon completion of an approved motorcycle safety training course (either in state or out-of-state).

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NEW SECTION

WAC 308-109-050 Outlining requirements for 3-wheel motorcycle instruction permit and endorsement. (1) The requirement to add a 3-wheel motorcycle instruction permit (3W MCIP) is passing a level knowledge test. A 3W MCIP may be added at any point the tests are valid. A valid 3W MCIP may be renewed prior to its expiration for an additional 180 days (effective the day of expiration of original 3W MCIP).

(2) The requirement to add a 3-wheel motorcycle endorsement is **either:**

(a) A valid 3W knowledge test and a valid 3W skills test;

or

(b) A valid 3W MCIP and a valid 3W skills test.

[]

NEW SECTION

WAC 308-109-060 Reinstatement of surrendered endorsements and reciprocity. (1) If an endorsement is surrendered, the customer has 365 days to reinstate the endorsement without the need for retesting. Once the 365 days passes, the customer is required to pass all required tests in WAC 308-109-040.

(2) Customers transferring from a reciprocal jurisdiction, with a valid motorcycle endorsement, will be issued the appropriate endorsement on their Washington credential (2W or 3W or both). If the jurisdiction the customer is transferring from does not distinguish between 2W and 3W endorsement, the customer will be issued a 2W endorsement unless they can prove they tested on a 3W motorcycle.

(3) If an endorsement is, involuntarily, not transferred from out-of-state, the customer has one renewal cycle to reinstate the endorsement without the need for retesting.

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WSR 23-21-098
PROPOSED RULES
NORTHWEST CLEAN
AIR AGENCY

[Filed October 18, 2023, 8:36 a.m.]

Original Notice.

Proposal is exempt under RCW 70A.15.2040(1).

Title of Rule and Other Identifying Information: Regulation of the Northwest Clean Air Agency (NWCAA).

Hearing Location(s): On December 5, 2023, at 10 a.m., in person at the NWCAA Office, 1600 South 2nd Street, Mount Vernon, WA; or via video and teleconference <https://us06web.zoom.us/j/85102305919>, Meeting ID 851 0230 5919, phone 253-215-8782.

Date of Intended Adoption: December 14, 2023.

Submit Written Comments to: Mark Buford, 1600 South 2nd Street, Mount Vernon, WA 98273, email info@nwcleanairwa.gov, fax 360-428-1620, by December 5, 2023, at 11 a.m.

Assistance for Persons with Disabilities: Contact Laurie Caskey-Schreiber, phone 360-428-1617, fax 360-428-1620, email info@nwcleanairwa.gov, by November 28, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Update the adoption-by-reference date to allow implementation of the most recent version of the referenced state and federal rules; delete chapter 173-442 WAC since it has been repealed; and add 40 C.F.R. 60 Subparts AAb, KKa, MMA, and TTTa and 40 C.F.R. 62 Subpart 000 to the list (NWCAA Section 104).

Replace the detailed public records procedures in the regulation with a general policy statement in accordance with the Public Records Act in chapter 42.56 RCW. The specific details and procedures related to public records will be published in a policy on the NWCAA website. This will allow NWCAA to better keep the public records policy up-to-date with the frequent changes in the RCW and current case law (NWCAA Section 106).

Update the adoption-by-reference date to allow implementation of the most recent version of the referenced state rules related to the State Environmental Policy Act (SEPA) (NWCAA Section 155).

Revise the definition of "Volatile organic compound (VOC)" to point to the general definitions in WAC 173-400-030 to avoid having to update the NWCAA definition each time the WAC definition section is renumbered (NWCAA Section 200).

Reasons Supporting Proposal: See above.

Statutory Authority for Adoption: Chapter 70A.15 RCW.

Statute Being Implemented: RCW 70A.15.2040(1); and chapter 42.56 RCW.

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

Name of Proponent: NWCAA, governmental.

Name of Agency Personnel Responsible for Drafting, Implementation, and Enforcement: Mark Buford, 1600 South 2nd Street, Mount Vernon, WA, 360-428-1617.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. Not applicable under RCW 70A.15.2040.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 70A.15.2040.

Explanation of exemptions: Not applicable under RCW 70A.15.2040.

Scope of exemption for rule proposal:

Is fully exempt.

October 18, 2023

Mark Buford

Executive Director

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 [23-22](#) issue of the Register.

WSR 23-21-100
PROPOSED RULES
DEPARTMENT OF
CHILDREN, YOUTH, AND FAMILIES
[Filed October 18, 2023, 9:01 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-17-103.

Title of Rule and Other Identifying Information: WAC 110-30-0020

What definitions apply to these rules? and 110-30-0050 Who may receive child protective services?

Hearing Location(s): On November 21, 2023, telephonic. Make oral comments by calling 360-972-5385 and leaving a voicemail that includes the comment and an email or physical mailing address where the department of children, youth, and families (DCYF) will send its response. Comments received through and including November 21, 2023, will be considered.

Date of Intended Adoption: November 22, 2023.

Submit Written Comments to: DCYF rules coordinator, email dcyf.rulescoordinator@dcyf.wa.gov, by November 21, 2023.

Assistance for Persons with Disabilities: DCYF rules coordinator, email dcyf.rulescoordinator@dcyf.wa.gov, by November 16, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: DCYF is updating administrative rules in chapter 110-30 WAC and other related rules that govern its authority and processes for investigating referrals of alleged child abuse or neglect. These changes are being taken pursuant to chapter 441, Laws of 2023 (ESSB 5515) which amended RCW 26.44.210.

Reasons Supporting Proposal: ESSB 5515 (2023), section 3 (1)(c), requires DCYF to "adopt rules to implement this section." Section 3 of this bill amended RCW 26.44.210 to expand DCYF's investigative duties to include several new program types: The Washington center for deaf and hard of hearing, substance use disorder treatment facilities licensed under chapter 71.24 RCW that treat patients on a residential basis, entities that provide behavioral health services as defined in RCW 71.24.025 on a residential basis, host homes as described in RCW 74.15.02[0] (2)(o), and residential private schools (defined in Section 3(3) of that same bill).

Statutory Authority for Adoption: Chapter 26.44 RCW; RCW 43.216.906, 74.13.031, 74.04.050; and chapter 441, Laws of 2023 (ESSB 5515).

Statute Being Implemented: RCW 26.44.210.

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

Name of Proponent: DCYF, governmental.

Name of Agency Personnel Responsible for Drafting: Melissa Sayer, 360-584-8666.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. DCYF is not among the agencies listed as required to comply with RCW 34.05.328 (5)[(a)](i). Further, DCYF does not voluntarily make that section applicable to the adoption of this rule.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3).

Scope of exemption for rule proposal:

Is fully exempt.

October 18, 2023
Brenda Villarreal
Rules Coordinator

OTS-5033.1

AMENDATORY SECTION (Amending WSR 20-04-019, filed 1/27/20, effective 2/27/20)

WAC 110-30-0020 What definitions apply to these rules? The following definitions apply to this chapter.

"Abuse or neglect" means the injury, sexual abuse, sexual exploitation, negligent treatment, or maltreatment of a child as defined in RCW 26.44.020 and this chapter.

"Administrative hearing" means a hearing held before an administrative law judge and conducted according to chapter 34.05 RCW and chapter 110-03 WAC.

"Administrative law judge (ALJ)" is an impartial decision-maker who presides at an administrative hearing. The office of administrative hearings, which is a state agency but not part of DCYF, employs the ALJs.

"Alleged perpetrator" means the person identified in a CPS referral as being responsible for the alleged child abuse or neglect.

"Alternative response system" means a contracted provider in a local community that responds to accepted CPS referrals that are rated low or moderately low risk at the time of intake.

"Appellant" means a person who requests an administrative hearing to appeal a CPS finding.

"Behavioral health services" has the same meaning as in RCW 71.24.025.

"Child protection team (CPT)" means a multidisciplinary group of persons with at least four persons from professions that provide services to abused or neglected children and/or parents of such children. The CPT provides confidential case staffing and consultation to child welfare cases.

"Child protective services (CPS)" means the section of the department of children, youth, and families for responding to allegations of child abuse or neglect.

"Child welfare programs (CWP)" means the division in DCYF that provides child protective, child welfare, and support services to children and their families.

"Department" or **"DCYF"** means the Washington state department of children, youth, and families.

"Finding" means the final decision made by a CPS caseworker after an investigation regarding alleged child abuse or neglect.

"Founded" means the determination following an investigation by CPS that based on available information it is more likely than not that child abuse or neglect did occur.

"Host home" has the same meaning as in RCW 74.15.020.

"Inconclusive" means the determination following an investigation by CPS, prior to October 1, 2008, that based on available information

a decision cannot be made that more likely than not, child abuse or neglect did or did not occur. Beginning October 1, 2008, the department no longer makes inconclusive findings, but retains such findings made prior to that date as provided in these rules.

"Licensing division (LD)" means the division in DCYF responsible for licensing group care and foster care facilities, and responding to allegations of abuse or neglect in such facilities.

"Mandated reporter" means a person required to report alleged child abuse or neglect as defined in RCW 26.44.030.

"Preponderance of evidence" means the evidence presented in a hearing indicates more likely than not child abuse or neglect did occur.

"Residential private schools" has the same meaning as in RCW 26.44.210.

"Screened-out report" means a report of alleged child abuse or neglect that the department had determined does not rise to the level of credible report of abuse or neglect and is not referred for investigation.

"Substance use disorder" has the same meaning as in RCW 71.24.025.

"Unfounded" means the determination following an investigation by CPS that based on available information it is more likely than not that child abuse or neglect did not occur or there is insufficient evidence for the department to determine whether the alleged child abuse did or did not occur.

[Statutory Authority: 2017 c 6. WSR 20-04-019, § 110-30-0020, filed 1/27/20, effective 2/27/20. WSR 18-14-078, recodified as § 110-30-0020, filed 6/29/18, effective 7/1/18. Statutory Authority: RCW 74.13.031, 74.04.050, and chapter 26.44 RCW. WSR 08-18-040, § 388-15-005, filed 8/28/08, effective 10/1/08; WSR 02-15-098 and 02-17-045, § 388-15-005, filed 7/16/02 and 8/14/02, effective 2/10/03.]

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

WAC 110-30-0050 Who may receive child protective services?

Children and families may receive child protective services when there is an allegation that a child has been abused or neglected:

- (1) By a parent, legal custodian, or guardian of the child;
- ~~((~~3~~))~~
- (2) While attending the Washington center for deaf and hard of hearing youth;
- (3) While attending the state school for the blind;
- (4) In a state-operated facility;
- (5) In a DCYF or DSHS licensed(~~(~~7~~)~~) or certified(~~(~~7~~, or state-operated)~~) facility including, but not limited to:
 - (a) Substance use disorder treatment facilities licensed under chapter 71.24 RCW that treat patients on a residential basis; and
 - (b) Entities that provide behavioral health services on a residential basis; ~~((~~3~~))~~
 - ~~(3-))~~ (6) By persons or agencies subject to licensing under chapter 74.15 RCW, including, but not limited to:
 - (a) Host homes; and

(b) Individuals employed by or volunteers of such facilities; and
(7) In residential private schools.

[WSR 18-14-078, recodified as § 110-30-0050, filed 6/29/18, effective 7/1/18. Statutory Authority: RCW 74.13.031, 74.04.050 and chapter 26.44 RCW. WSR 02-15-098 and 02-17-045, § 388-15-013, filed 7/16/02 and 8/14/02, effective 2/10/03.]

WSR 23-21-101

PROPOSED RULES

DEPARTMENT OF LICENSING

[Filed October 18, 2023, 9:03 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-16-151.

Title of Rule and Other Identifying Information: WAC 308-100-005 Definitions, 308-100-033 Minimum training requirements, 308-100-035 Employer certification, 308-100-040 Examination requirement for commercial driver's license, 308-100-050 Examination fees, 308-100-100 Intrastate waiver, 308-100-130 Serious traffic violations, 308-100-180 Third-party testing fee, and the creation of two new WAC to cover re-testing and retraining requirements following the surrender, disqualification, or cancellation of a driver's commercial driver's license (CDL) and CDL drivers from Canada and Mexico.

Hearing Location(s): On November 21, 2023, at 10:00 a.m., via Zoom meeting <https://dol-wa.zoom.us/j/85787173870?pwd=OGtw6EBgmeC02arb7OzYGqqgt8AEIC.1>, Meeting ID 857 8717 3870, Passcode 341647; One-tap mobile +12532050468,,85787173870#,,,,*341647# US, +12532158782,,85787173870#,,,,*341647# US (Tacoma); or dial by your location, Meeting ID 857 8717 3870, Passcode 341647. Find your local number <https://dol-wa.zoom.us/j/85787173870?pwd=OGtw6EBgmeC02arb7OzYGqqgt8AEIC.1>. If you are having difficulty joining the Zoom meeting at the time of the public hearing, please call 360-902-0131. An in-person option is available at the Highways and Licensing Building, 1125 Washington Street S.E., Olympia, WA 98504.

Date of Intended Adoption: November 22, 2023.

Submit Written Comments to: Kelsey Stone, 1125 Washington Street S.E., Olympia, WA 98504, email rulescoordinator@dol.wa.gov, by November 14, 2023.

Assistance for Persons with Disabilities: Contact Kelsey Stone, phone 360-902-0131, email rulescoordinator@dol.wa.gov, by November 11, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The department of licensing (DOL) is proposing amendments of current definitions related to CDL holders to decrease regulatory barriers to obtaining a CDL per a petition from the Washington Trucking Association, as well as implementation pursuant to HB 1058 passed during the 2023 legislative session.

Reasons Supporting Proposal: This proposal will include technical corrections clarifying rules related to training, testing, and reporting requirements for CDL holders, training providers, and employers, which is intended to increase Washington's capacity to train CDL holders, improve agency efficiency and oversight capabilities, and ensure compliance with state statute and federal regulation.

Statutory Authority for Adoption: RCW 46.01.110 Rule-making authority.

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: WAC language was modified based on feedback received from external stakeholders.

Name of Agency Personnel Responsible for Drafting: Kelsey Stone, 1125 Washington Street S.E., Olympia, WA 98504, 360-902-0131; Implementation and Enforcement: Dan Cooke, 1125 Washington Street S.E., Olympia, WA 98504, 360-902-3826.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Kelsey Stone, 1125 Washington Street S.E., Olympia, WA 98504, phone 360-902-0131, email rulescoordinator@dol.wa.gov.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect; rule content is explicitly and specifically dictated by statute; rules set or adjust fees under the authority of RCW 19.02.075 or that set or adjust fees or rates pursuant to legislative standards, including fees set or adjusted under the authority of RCW 19.80.045; and rules adopt, amend, or repeal a procedure, practice, or requirement relating to agency hearings; or a filing or related process requirement for applying to an agency for a license or permit.

Scope of exemption for rule proposal:

Is partially exempt:

Explanation of partial exemptions:

| | Proposed WAC Sections and Title | This proposed rule section is <u>not</u> exempt - Analysis is required | This proposed rule section is exempt. Provide RCW to support this exemption. |
|-----|---|---|--|
| 1. | WAC 308-100-005 Definitions | <input type="checkbox"/> | RCW 34.05.310 (4)(d) (Correct or clarify language) |
| 2. | WAC 308-100-033 Minimum training requirements | <input type="checkbox"/> | RCW 34.05.310 (4)(d) (Correct or clarify language) |
| 3. | New WAC 308-100-034 Demonstrated proficiency | X | Established to align DOL policy regarding training standards and clarify DOL's interpretation of federal rules. |
| 4. | WAC 308-100-035 Employer certification | <input type="checkbox"/> | RCW 34.05.310 (4)(d) (Correct or clarify language) RCW 34.05.310 (4)(g) ((i) Relating to agency hearings; or (ii) process requirements for applying to an agency for a license or permit) |
| 5. | WAC 308-100-040 Examination requirement for commercial driver's license | <input type="checkbox"/> | RCW 34.05.310 (4)(d) (Correct or clarify language) |
| 6. | New WAC 308-100-045 Reinstatement of a CDL after disqualification, cancellation, expiration, revocation, surrender, suspension, or transfer | <input type="checkbox"/> | RCW 34.05.310 (4)(e) (Dictated by statute) |
| 7. | WAC 308-100-050 Examination fees | <input type="checkbox"/> | RCW 34.05.310 (4)(f) (Set or adjust fees) RCW 34.05.310 (4)(e) (Dictated by statute) |
| 8. | WAC 308-100-130 Serious traffic violations | <input type="checkbox"/> | RCW 34.05.310 (4)(e) (Dictated by statute) |
| 9. | WAC 308-100-135 Out-of-service order violations (Repealed) | X | |
| 10. | WAC 308-100-180 Third-party testing fee | <input type="checkbox"/> | RCW 34.05.310 (4)(f) (Set or adjust fees) RCW 34.05.310 (4)(e) (Dictated by statute) |

The proposed rule does not impose more-than-minor costs on businesses. Following is a summary of the agency's analysis showing how costs were calculated. Benefits for customers and employers include greater ease for regaining a commercial driver's license, or licensed

driver, without incurring additional costs for training and testing. Costs include reduced cash flows to nonemployer training providers, state-operated testing facilities, and third-party examiners due to lifting requirements for drivers to undergo retraining and retesting. Additionally, reducing these requirements may get drivers on the road faster than current policy allows, but this risk should be offset by other efforts to ensure initial training quality, proficiency standards, and integrity of assessments. We believe that with these efforts, fewer professional drivers will face withdrawal actions leading to CDL surrender, and that the overall benefits exceed the costs involved in extending the retesting and retraining intervals and standardizing demonstration of proficiency criteria. Concerns raised by stakeholders were addressed in the modified language being filed.

October 18, 2023
Ellis Starrett
Rules and Policy Manager

OTS-5027.1

AMENDATORY SECTION (Amending WSR 19-01-078, filed 12/17/18, effective 1/17/19)

WAC 308-100-005 Definitions. The definitions of this section apply throughout this chapter unless the context clearly requires otherwise:

(1) "Behind-the-wheel (BTW) range training" means training provided by a BTW instructor when a student has actual control of the power unit during a driving lesson conducted for backing, street driving, and proficiency development. BTW range training does not include time a student spends observing the operation of a CMV when he or she is not in control of the vehicle.

(2) "Behind-the-wheel (BTW) instructor" means an individual who provides BTW training involving the actual operation of a CMV by a student on a range or a public road and meets one of these qualifications:

(a) Holds a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided and has at least two years of experience driving a CMV requiring a CDL of the same or higher class and/or the same endorsement and meets all applicable state qualification requirements for CMV instructors; or

(b) Holds a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided and has at least two years of experience as a BTW CMV instructor and meets all applicable state qualification requirements for CMV instructors.

(c) **Exception applicable to (a) and (b) of this definition:** A BTW instructor who provides training solely on a range which is not a public road is not required to hold a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided, as long as the instructor previously held a CDL of the same (or higher) class and with all endorsements necessary

ry to operate the CMV for which training is to be provided, and complies with the other requirements set forth in (a) or (b) of this definition.

(d) If an instructor's CDL has been canceled, suspended, or revoked due to any of the disqualifying offenses identified in C.F.R. 383.51, the instructor is prohibited from engaging in BTW instruction for two years following the date his or her CDL is reinstated.

(3) "Certified test route" means:

(a) Test route that is approved and assigned by the department.

(b) The areas for completing the pretrip inspection, basic controls and road test as approved by the department for the administration of a commercial driver license skills test.

(4) "Classroom" means a space dedicated to and used exclusively by an instructor for the instruction of students. With prior department approval, a classroom may be located within alternative facilities, such as a public or private library, school, community college, college or university, public agency, or a business training facility. "Classroom," may also include a virtual classroom environment when video conferencing technology is capable of two-way communication between the instructor and all students.

(5) "Instructor-led" means person-to-person learning where students can ask questions, receive feedback in real-time, and interaction and discussion are enabled. Some classroom instruction may include self-paced, online components as authorized and certified by the department of licensing. Completely self-paced, online training courses are not authorized.

(6) "Classroom/theory instruction" means knowledge instruction on the operation of a CMV and related matters provided by a theory instructor through lectures, demonstrations, audiovisual presentations, computer-based instruction, driving simulation devices, or similar means. Instruction occurring outside a classroom is included if it does not involve actual operation of a commercial motor vehicle and its components by the student.

~~((5))~~ (7) "Employee" means any operator of a commercial motor vehicle, including full time, regularly employed drivers; casual, intermittent or occasional drivers; leased drivers and independent, owner operator contractors, while in the course of operating a commercial motor vehicle, who are either directly employed by or under lease to an employer.

~~((6))~~ (8) "Employer" means a person or entity that hires one or more individuals to operate a commercial motor vehicle on a regular basis during their normal course of employment and whose primary purpose is not to train operators of commercial motor vehicles.

~~((7))~~ (9) "Hour," as used in connection with training requirements, means no less than ~~((fifty))~~ 50 minutes of training or instruction.

~~((8))~~ (10) "Lab" means a teaching environment involving a non-moving vehicle for hands on instruction supported by classroom material.

~~((9))~~ (11) "Observation" means the careful watching, as a passenger in a commercial motor vehicle, of street driving during the hours of course instruction, recording lessons learned and applying classroom material.

~~((10))~~ (12) "Proficiency development" means driving exercises that will allow more time to develop the skills needed to demonstrate proficiency, competence, and confidence in the street driving and backing maneuvers portions of a course.

~~((11))~~ (13) "Proficiency-based learning" means:

(a) Learning outcomes emphasize competencies that include application and creation of knowledge along with the development of skills and abilities;

(b) Competency criteria and standards are explicit, measurable, transferable learning objectives that equip driver-trainees with necessary knowledge, skills, and abilities;

(c) Assessments are meaningful and directly related to driver-trainees' accomplishment of objectives;

(d) Driver-trainees receive rapid, differentiated support based on their individual learning needs; and

(e) Driver-trainees are given specific and actionable feedback that allows them to advance upon demonstrated proficiency of content in all required areas of the curriculum.

(14) "Demonstration of proficiency" means driver-trainee must demonstrate proficiency in required skills over time. Demonstration of proficiency of state and federal entry level driver training standards is not met by the completion of minimum hours of training. Nor is it limited to a single standardized assessment result.

(15) "English proficiency" means applicants for a commercial motor vehicle skills test must be able to understand and respond to verbal commands and instructions in English by a skills test examiner per 49 C.F.R. 383.133(5).

(16) "Range" means an area closed from the public where driving activities are practiced, free of obstructions, enables the driver to maneuver safely and free from interference from other vehicles and hazards, and has adequate sight lines.

~~((12))~~ (17) "Street driving" means driving a commercial motor vehicle on a public road, where the traffic laws are enforced, consisting of city street, country road, and freeway driving.

~~((13))~~ (18) "Theory instructor" means an individual who provides knowledge instruction on the operation of a CMV and meets one of these qualifications:

(a) Holds a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided and has at least two years of experience driving a CMV requiring a CDL of the same (or higher) class and/or the same endorsement and meets all applicable state qualification requirements for CMV instructors; or

(b) Holds a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided and has at least two years of experience as a BTW CMV instructor and meets all applicable state qualification requirements for CMV instructors.

(c) **Exceptions applicable to (a) and (b) of this definition:** An instructor is not required to hold a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided, if the instructor previously held a CDL of the same (or higher) class and complies with the other requirements set forth in (a) or (b) of this definition.

(d) If an instructor's CDL has been canceled, suspended, or revoked due to any of the disqualifying offenses identified in C.F.R. 383.51, the instructor is prohibited from engaging in theory instruction for two years following the date his or her CDL is reinstated.

~~((14))~~ (19) "Training institute/provider" means an entity that is approved by the department, to provide training as required by RCW 46.25.060 (1) (a) (ii):

(a) An institution of higher learning accredited by the Northwest Association of Schools and Colleges or by an accrediting association recognized by the higher education board;

(b) A licensed private vocational school as that term is defined by RCW 28C.10.020(7); (~~or~~)

(c) An entity in another state that the department has determined provides training or instruction equivalent to that required under WAC 308-100-033 or 308-100-035; or

(d) An entity that the state has determined provides on-site contracted training or instruction equivalent to that required under WAC 308-100-033.

(20) "Without a CDL" means any period of disqualification, cancellation, expiration, revocation, surrender, or suspension.

[Statutory Authority: RCW 46.01.110, 46.25.010, 46.25.060, 46.25.140 and 49 C.F.R., Parts 380, 383, and 384. WSR 19-01-078, § 308-100-005, filed 12/17/18, effective 1/17/19. Statutory Authority: RCW 46.01.110, 46.25.060, and 46.25.140. WSR 08-16-017, § 308-100-005, filed 7/25/08, effective 8/25/08.]

AMENDATORY SECTION (Amending WSR 00-18-068, filed 9/1/00, effective 10/2/00)

WAC 308-100-020 Commercial driver's license—Eligibility. (1) Any person who is at least (~~eighteen~~) 18 years of age and who meets the requirements of chapter 46.25 RCW may apply to the department for a commercial driver's license.

(2) For the purposes of clarifying when a CDL cannot be issued to citizens of Canada or Mexico:

(a) A driver who is a citizen of Canada or Mexico must be a resident of Washington, and either be a citizen of the U.S. or have an unexpired Permanent Resident (Green) Card (Form I-551) to obtain a Washington CDL.

(b) A driver who is a citizen of Canada or Mexico that is a resident of Washington but only has an employment authorization document cannot be issued a Washington or non-Domiciled CDL.

[Statutory Authority: RCW 46.01.110, 46.25.010, 46.25.060, and 46.25.140. WSR 00-18-068, § 308-100-020, filed 9/1/00, effective 10/2/00. Statutory Authority: RCW 46.01.110 and 1989 c 178 §§ 3, 5, 8 and 16. WSR 89-18-003, § 308-100-020, filed 8/24/89, effective 9/24/89. Statutory Authority: RCW 46.01.110. WSR 82-03-046 (Order 668 DOL), § 308-100-020, filed 1/19/82; Order 106 MV, § 308-100-020, filed 8/17/71; Order 1, § 308-100-020, filed 1/5/68.]

NEW SECTION

WAC 308-100-034 Demonstrated proficiency. For the purposes of establishing the definition of demonstrated proficiency, where and how proficiency is assessed, and procedures for reporting to the department.

(1) Per WAC 308-100-033 and 49 C.F.R. Part 380, training providers must determine and document that each driver-trainee has demonstrated proficiency in all elements of behind-the-wheel (BTW) curriculum, unless otherwise noted. Proficiency-based learning must be used to teach and determine driver-trainees' basic vehicle control skills, mastery of basic maneuvers, and public road operation, as covered in 49 C.F.R. 383.111 and 383.113, necessary to operate the vehicle safely.

(a) Consistent with the definitions of BTW range training and BTW public road training in 49 C.F.R. 380.605, a simulation device cannot be used to conduct such training or to demonstrate proficiency.

(b) Training providers must document the actual number of clock hours each driver-trainee spends to complete the BTW curriculum.

(c) Driver-trainees are not required to demonstrate proficiency in the following skills:

(i) Hazard perception;

(ii) Railroad (RR) highway grade crossing;

(iii) Night operation;

(iv) Extreme driving conditions;

(v) Skid control/recovery, jackknifing, and other emergencies.

(2) Training providers must adopt a written policy for driver-trainee demonstration of proficiency.

(3) Training providers shall use a learning standards rubric, provided by the department, in addition to federally determined learning standards as criteria when making decisions regarding driver-trainee demonstration of proficiency. Training providers shall provide proficiency standards to driver-trainees in writing at the time of enrollment.

(4) Training providers shall document successful demonstration of proficiency in all required areas of the curriculum prior to submitting a course completion to the department. Documentation must include the date, time, and location of the assessment, means of assessment used, and identification of staff who conducted the assessment of proficiency.

(5) Training providers must determine any potential driver-trainee has the basic skills necessary to complete and benefit from the program including, but not limited to, determining English proficiency as defined in WAC 308-100-005. Training providers subject to WAC 490-105-140 and RCW 28C.10.050 (1)(g), must conform to additional requirements from the workforce training and education coordinating board.

[]

AMENDATORY SECTION (Amending WSR 20-19-032, filed 9/9/20, effective 10/10/20)

WAC 308-100-035 Employer certification. (1) An employer may ~~((certify that one of))~~ train its employees ~~((has))~~ on the skills and training necessary to operate a commercial motor vehicle ~~((safely by certifying the employee has demonstrated proficiency in the elements of the))~~ in accordance with course of instruction required in WAC 308-100-033, with the exception of the minimum required hours ~~((, on a form provided by the department))~~. The ~~((certification))~~ training must ~~((include))~~ be relevant to the classification or endorsements of com-

mercial motor vehicle that the employee is (~~competent~~) licensed to operate.

(2) The certification of training completion must be provided to the department electronically according to WAC 308-100-036. (~~Beginning on February 7, 2022,~~) ~~An employer may only (certify that an applicant for a CDL has the skills and training necessary)~~ submit completion of training to operate a commercial motor vehicle safely if the employee has successfully completed training with a training provider listed on FMCSA's Training Provider Registry established under 49 C.F.R. 380.700.

(3) The department must receive an electronic notification of successful completion prior to an employee taking a skills test.

[Statutory Authority: RCW 46.01.110 and 46.25.085. WSR 20-19-032, § 308-100-035, filed 9/9/20, effective 10/10/20. Statutory Authority: RCW 46.01.110, 46.25.010, 46.25.060, 46.25.140 and 49 C.F.R., Parts 380, 383, and 384. WSR 19-01-078, § 308-100-035, filed 12/17/18, effective 1/17/19. Statutory Authority: RCW 46.01.110, 46.25.060, and 46.25.140. WSR 08-16-017, § 308-100-035, filed 7/25/08, effective 8/25/08.]

AMENDATORY SECTION (Amending WSR 19-01-078, filed 12/17/18, effective 1/17/19)

WAC 308-100-040 Examination requirement for commercial driver's license. (1) Persons applying for a commercial driver's license (~~will be~~) are required to pass a written examination testing their knowledge of commercial motor vehicle laws, rules of the road, and operating characteristics of the class and/or endorsement of vehicles for which they are seeking the commercial driver's license. (~~They will also be~~) Applicants are required to (~~demonstrate~~) successfully (~~their~~) demonstrate operating skills for the class of vehicle and endorsement(s) for which they seek the commercial driver's license.

(2) Knowledge and skills test scores are valid according to the following conditions:

(a) Double/triple and HAZMAT knowledge tests are valid for 180 days.

(b) General knowledge, passenger, school bus, air brake, and combination tests are valid for 180 days or through one CLP renewal cycle not to exceed one year (365 days) from the initial issuance.

(c) Tanker knowledge tests are only valid for 180 days unless the endorsement has been added to a valid commercial learner's permit. When the endorsement is added to the permit, the test scores shall be valid for 180 days or through one CLP renewal cycle not to exceed one year (365 days) from the initial issuance.

(d) Skills tests scores for passed segments of the test are only valid during the initial issuance of the CLP. The renewal of a CLP nullifies any previously passed test segment scores.

(e) Excepting knowledge tests in (a) and (c) of this subsection, knowledge test scores remain valid when a CLP is renewed once for an additional 180 days not to exceed one year (365 days) from the initial issuance. Any subsequent CLP issuance or renewal requires retesting in all relevant knowledge areas.

(3) The department will conduct knowledge and skills examinations that at a minimum meet the requirements of 49 C.F.R. 383.133, as it existed on (effective date of WAC).

[Statutory Authority: RCW 46.01.110, 46.25.010, 46.25.060, 46.25.140 and 49 C.F.R., Parts 380, 383, and 384. WSR 19-01-078, § 308-100-040, filed 12/17/18, effective 1/17/19. Statutory Authority: RCW 46.01.110, 46.25.060, and 46.25.140. WSR 07-24-025, § 308-100-040, filed 11/28/07, effective 12/29/07. Statutory Authority: RCW 46.01.110, 46.25.010, 46.25.060, and 46.25.140. WSR 00-18-068, § 308-100-040, filed 9/1/00, effective 10/2/00. Statutory Authority: RCW 46.01.110 and 1989 c 178 §§ 3, 5, 8 and 16. WSR 89-18-003, § 308-100-040, filed 8/24/89, effective 9/24/89; Order 1, § 308-100-040, filed 1/5/68.]

NEW SECTION

WAC 308-100-045 Reinstatement of a CDL after disqualification, cancellation, expiration, revocation, surrender, suspension, or transfer.

(1) CDL holders may reinstate a CDL after a period of disqualification, cancellation, expiration, revocation, surrender, suspension, or transfer under the following conditions:

(a) Any driver that has been without a commercial driver license (CDL), less than two years, if eligible, may reinstate the same CDL, endorsements, and restrictions without any additional training or testing provided all other issuance requirements have been satisfied.

(b) Any driver that has been without a commercial driver license (CDL), two years or more but less than eight years, may reinstate the same CDL, endorsements, and restrictions without any additional training. However, the driver must pass all applicable CDL knowledge tests, obtain a CLP, and pass all required skills tests provided all other issuance requirements have been satisfied.

(c) Any driver without a commercial driver license (CDL) for eight years or more, may reinstate the same CDL, endorsements, and restrictions, if otherwise eligible, must pass all required knowledge tests, obtain a CLP, complete required training, and pass all required skills tests. All other issuance requirements must be satisfied.

(i) Drivers must complete all required training for their intended class and endorsements as stated in WAC 308-100-033.

(ii) Any driver wishing to upgrade the class or endorsement(s) of their CDL at the time of reinstatement must complete all required training and tests associated with that upgrade.

(d) A driver transferring to Washington without a valid CDL, who surrendered that license prior to transfer may reinstate the same CDL, endorsements, and restrictions, if otherwise eligible, shall follow the procedures set forth in (a), (b), or (c) of this subsection as appropriate.

(2) For the purposes of reinstatement, all course completion, knowledge test, and skills test scores are valid for a period of six months.

(3) Drivers are not eligible for reinstatement if currently under any type of disqualification that would not allow them to be issued a CDL.

[]

AMENDATORY SECTION (Amending WSR 17-22-074, filed 10/27/17, effective 11/27/17)

WAC 308-100-050 Examination fees. (1) The examination fee for each commercial driver's license knowledge examination, commercial driver's license endorsement knowledge examination, or any combination of commercial driver's license and endorsement knowledge examinations, shall be ~~((thirty-five dollars))~~ \$35.

(2) (a) Except as provided in subsection (2) (b) of this section, the examination fee for each commercial driver's license skill examination conducted by the department shall be ~~((two hundred fifty dollars and entitles the applicant to take the examination up to two times in order to pass.~~

~~(b) If the applicant's primary use of a commercial driver's license is for any of the following, then the examination fee for each commercial driver's license skill examination conducted by the department shall be two hundred twenty-five dollars and entitles the applicant to take the examination up to two times in order to pass:~~

~~(i) Public benefit not for profit corporations that are federally supported head start programs; or~~

~~(ii) Public benefit not for profit corporations that support early childhood education and assistance programs as described in RCW 43.215.405.~~

~~(e-))~~ \$175.

(b) If the applicant's primary use of a commercial driver's license is to drive a school bus, the applicant shall pay a fee of no more than ~~((one hundred dollars))~~ \$100 for the classified skill examination or combination of classified skill examinations conducted by the department and entitles the applicant to take the examination up to two times in order to pass.

(3) Drivers selected for reexamination by the department may be subject to costs associated with the testing.

(4) The fees in this section are in addition to the regular drivers' licensing fees.

[Statutory Authority: RCW 46.25.140 and 46.01.110. WSR 17-22-074, § 308-100-050, filed 10/27/17, effective 11/27/17. Statutory Authority: RCW 46.01.110, 46.20.049, and 46.20.505. WSR 13-03-018, § 308-100-050, filed 1/7/13, effective 2/7/13. Statutory Authority: RCW 46.01.110, 46.25.060, and 46.25.140. WSR 07-24-025, § 308-100-050, filed 11/28/07, effective 12/29/07. Statutory Authority: RCW 46.01.110, 46.25.010, 46.25.060, and 46.25.140. WSR 00-18-068, § 308-100-050, filed 9/1/00, effective 10/2/00. Statutory Authority: RCW 46.01.110, 46.20.470 and 46.20.505. WSR 00-02-017, § 308-100-050, filed 12/27/99, effective 7/1/00. Statutory Authority: RCW 46.01.110 and 1989 c 178 §§ 3, 5, 8 and 16. WSR 89-18-003, § 308-100-050, filed 8/24/89, effective 9/24/89. Statutory Authority: RCW 46.01.110. WSR 82-03-046 (Order 668 DOL), § 308-100-050, filed 1/19/82; Order 691101, § 308-100-050, filed 11/26/69; Order 1, § 308-100-050, filed 1/5/68.]

AMENDATORY SECTION (Amending WSR 14-20-053, filed 9/25/14, effective 10/26/14)

WAC 308-100-130 Serious traffic violations. In addition to the violations enumerated in RCW 46.25.010, "Serious traffic violation" shall include:

- (1) Negligent driving in the first or second degree, as defined by RCW 46.61.5249, 46.61.525, or 46.61.526;
- (2) Following too closely, as defined by RCW 46.61.145, or 46.61.635;
- (3) Failure to stop, as defined by RCW 46.61.055, 46.61.065, 46.61.195, 46.61.200, 46.61.365, 46.61.370, 46.61.375, or 46.61.385;
- (4) Failure to yield right of way, as defined by RCW 46.61.180, 46.61.185, 46.61.190, 46.61.202, 46.61.205, 46.61.210, 46.61.212, 46.61.215, 46.61.220, 46.61.235, 46.61.245, 46.61.261, 46.61.300, or 46.61.427;
- (5) Speed too fast for conditions, as defined by RCW 46.61.400;
- (6) Improper lane change or travel, as defined by RCW 46.61.070, 46.61.105, 46.61.140, 46.61.290, or 46.61.608;
- (7) Improper or erratic lane changes, including:
 - (a) Improper overtaking on the right, as defined by RCW 46.61.115;
 - (b) Improper overtaking on the left, as defined by RCW 46.61.110, 46.61.120, or 46.61.130; and
 - (c) Improper driving to left of center of roadway, as defined by RCW 46.61.125;
- (8) Reckless endangerment of emergency zone workers, as defined by RCW 46.61.212;
- (9) Reckless endangerment of roadway workers, as defined by RCW 46.61.527; and
- (10) A conviction of an administrative rule or local law, ordinance, rule, or resolution of this state, the federal government, or any other state, of an offense substantially similar to a violation included in this section.
- (11) Use of a motor vehicle in the commission of any trafficking offense as defined in RCW 46.25.090, 9A.40.100, and 49 C.F.R. 383.51.

[Statutory Authority: RCW 46.01.110, 46.25.010, and 46.25.140. WSR 14-20-053, § 308-100-130, filed 9/25/14, effective 10/26/14; WSR 09-10-085, § 308-100-130, filed 5/6/09, effective 6/6/09. Statutory Authority: RCW 46.01.110, 46.25.010, 46.25.060, and 46.25.140. WSR 00-18-068, § 308-100-130, filed 9/1/00, effective 10/2/00. Statutory Authority: RCW 46.01.110 and 1989 c 178 §§ 3, 5, 8 and 16. WSR 89-18-003, § 308-100-130, filed 8/24/89, effective 9/24/89.]

AMENDATORY SECTION (Amending WSR 19-01-078, filed 12/17/18, effective 1/17/19)

WAC 308-100-180 Third-party testing fee. (1) (a) Except as provided in WAC 308-100-190 or (b) of this subsection, the base fee for each classified skill examination or combination of skill examinations conducted by a third-party tester shall not be more than (~~two hundred fifty dollars and entitles the applicant to take the examination up to two times in order to pass~~) \$175.

~~(b) ((If the applicant's primary use of a commercial driver's license is for any of the following, then the examination fee for each commercial driver's license skill examination conducted by a third-party tester shall not be more than two hundred twenty-five dollars and entitles the applicant to take the examination up to two times in order to pass:~~

~~(i) Public benefit not for profit corporations that are federally supported head start programs; or~~

~~(ii) Public benefit not for profit corporations that support early childhood education and assistance programs as described in RCW 43.215.405(4).~~

~~(e))~~ If the applicant's primary use of a commercial driver's license is to drive a school bus, the applicant shall pay a fee of no more than ~~((one hundred dollars))~~ \$100 for the classified skill examination or combination of classified skill examinations conducted by the department and entitles the applicant to take the examination up to two times in order to pass.

(2) The base fee shall apply only to the conducting of the examination, and is separate from any additional fees, such as vehicle use fees, which may be charged by the third-party tester. Any additional fees to be charged shall be ~~((reported to))~~ approved by the department.

(3) Fees owed to a third-party tester under this section must be paid by the applicant as provided in the third-party tester agreement entered into under WAC 308-100-140.

(4) Fees paid for a test that is deemed invalid by the department must be reimbursed immediately to the applicant.

(5) The fees in this section are in addition to the regular drivers' licensing fees.

[Statutory Authority: RCW 46.01.110, 46.25.010, 46.25.060, 46.25.140 and 49 C.F.R., Parts 380, 383, and 384. WSR 19-01-078, § 308-100-180, filed 12/17/18, effective 1/17/19. Statutory Authority: RCW 46.25.140 and 46.01.110. WSR 17-22-074, § 308-100-180, filed 10/27/17, effective 11/27/17. Statutory Authority: RCW 46.01.110, 46.25.060, and 46.25.140. WSR 15-03-048, § 308-100-180, filed 1/14/15, effective 2/14/15; WSR 07-24-025, § 308-100-180, filed 11/28/07, effective 12/29/07; WSR 03-10-024, § 308-100-180, filed 4/28/03, effective 5/29/03. Statutory Authority: RCW 46.01.110 and 1989 c 178 §§ 3, 5, 8 and 16. WSR 89-18-003, § 308-100-180, filed 8/24/89, effective 9/24/89.]

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 308-100-135 Out-of-service order violations.

WSR 23-21-102
PROPOSED RULES
OFFICE OF THE
INSURANCE COMMISSIONER

[Insurance Commissioner Matter R 2023-07—Filed October 18, 2023, 9:03 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-16-137.

Title of Rule and Other Identifying Information: Implementation of ESSB 5122 (2011-12), ESHB 1222 (2023-24), E2SHB 1357 (2023-24), SB 5036 (2023-24), SB 5066 (2023-24), SB 5242 (2023-24), SSB 5396 (2023-24), and other related legislation incorporated as consolidated health care rule making.

Hearing Location(s): On Tuesday, November 21, 2023, at 9:00 a.m., virtually via Zoom. Please see this website for the links and registration <https://www.insurance.wa.gov/consolidated-health-care-rulemaking-r-2023-07>. Written comments are due to the office of the insurance commissioner (OIC) by close of business (5 p.m. PST) on Wednesday, November 22, 2023. Written comments can be emailed to RulesCoordinator@oic.wa.gov.

Date of Intended Adoption: Monday, November 27, 2023.

Submit Written Comments to: Michael Walker and Delika Steele, P.O. Box 40260, Olympia, WA 98504-0260, email RulesCoordinator@oic.wa.gov, fax 360-586-3109, by Wednesday, November 22, 2023.

Assistance for Persons with Disabilities: Contact Katie Bennett, phone 360-725-7013, fax 360-586-2023, TTY 360-586-0241, email Katie.Bennett@oic.wa.gov, by Tuesday, November 21, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: OIC is proposing consolidated health care rule making due to the recent passage of insurance-related legislation. Currently, multiple provisions of health care and insurance regulations in WAC need updated by OIC to be consistent with the legislation passed and codified in RCW. These rules will facilitate implementation of the new laws by ensuring that all affected health care and insurance entities understand their legal rights and obligations under the enacted legislation.

Reasons Supporting Proposal: This effort includes updating regulatory definitions for emergency medical condition and prior authorizations, clarifying hearing instrument coverage requirements, updating telemedicine time frames, providing guidance for health care benefit manager and health carrier contract reporting requirements, and clarifying cost sharing for abortion and diagnostic or supplemental breast exams. This rule making impacts the following authorities: WAC 284-43-0160, 284-43-7220, 284-44-046, 284-50-270, 284-170-130, 284-180-460, and new sections in chapters 284-43 and 284-46 WAC.

Statutory Authority for Adoption: RCW 48.02.060 (to effectuate chapter 314, Laws of 2011; chapter 8, Laws of 2023; chapter 107, Laws of 2023; chapter 194, Laws of 2023; chapter 245, Laws of 2023; chapter 366, Laws of 2023; and chapter 382, Laws of 2023); as well as RCW 48.43.735, 48.44.050, 48.46.200, 48.200.040, and 48.200.900.

Statute Being Implemented: Chapter 314, Laws of 2011; chapter 245, Laws of 2023; chapter 8, Laws of 2023; chapter 107, Laws of 2023; chapter 194, Laws of 2023; chapter 366, Laws of 2023; and chapter 382, Laws of 2023.

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

Name of Proponent: Mike Kreidler, insurance commissioner, governmental.

Name of Agency Personnel Responsible for Drafting: Michael Walker, P.O. Box 40255, Olympia, WA 98504-0255, 360-725-7036; Implementation: Ned Gaines, P.O. Box 40255, Olympia, WA 98504-0255, 360-725-7126; and Enforcement: Kim Tocco, P.O. Box 40255, Olympia, WA 98504-0255, 360-725-7118.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Simon Casson, P.O. Box 40260, Olympia, WA 98504, phone 360-725-7038, fax 360-586-3109, email simon.casson@oic.wa.gov.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules are adopting or incorporating by reference without material change federal statutes or regulations, Washington state statutes, rules of other Washington state agencies, shoreline master programs other than those programs governing shorelines of statewide significance, or, as referenced by Washington state law, national consensus codes that generally establish industry standards, if the material adopted or incorporated regulates the same subject matter and conduct as the adopting or incorporating rule; and rule content is explicitly and specifically dictated by statute.

Is exempt under RCW 19.85.025(4).

Explanation of exemptions: **WAC 284-43-0160 Definitions.** The definition of "Emergency medical condition" has been amended to have "... the meaning set forth in RCW 48.43.005." This section is exempt under RCW 19.85.025(3) - provides exclusions under RCW 34.05.310 (4)(c), as it incorporates existing statute by reference.

The definition of "Expedited prior authorization request" has been amended to have "... the meaning set forth in RCW 48.43. (Section 1, Chapter 382, Laws of 2023)." This section is exempt under RCW 19.85.025(3) - provides exclusions under RCW 34.05.310 (4)(c), as it incorporates existing statute by reference.

The definition of "Standard prior authorization request" has been amended to have "... the meaning set forth in RCW 48.43. (Section 1, Chapter 382, Laws of 2023).["] This section is exempt under RCW 19.85.025(3) - provides exclusions under RCW 34.05.310 (4)(c), as it incorporates existing statute by reference.

WAC 284-43-5937 Hearing instrument coverage. This new section details the requirements put forth in chapter 245, Laws of 2023. This section is exempt under RCW 34.05.310 (4)(e) because proposed changes are explicitly and specifically dictated by statute.

WAC 284-43-7220 Coverage required. Subsections (2)(a), (b), and (c) are exempt under RCW 34.05.310 (4)(e) because proposed changes are dictated by statute without option. The requirements are set forth in chapter 194, Laws of 2023.

Section 4 defines "abortion of a pregnancy" as "... medical treatment intended to induce termination of a pregnancy, except for the purpose of producing a live birth, and all medically necessary care associated with completing treatment including but not limited to office visits, counseling, diagnostic and laboratory testing, and prescription drugs." This definition includes language derived from RCW 9.02.170, which defines abortion as "... any medical treatment intended

to induce the termination of a pregnancy except for the purpose of producing a live birth." Further, section 1 (2) (a) of SB 5242 explains "[e]xcept as provided in (b) of this subsection, a health plan or student health plan subject to subsection (1) of this section may not limit in any way a person's access to services related to the abortion of a pregnancy." The purpose of including this definition in the rule is to provide clarity to health carriers on the scope of benefits captured under the new legal framework.

The addition of this definition does not alter the statutory requirement to prohibit cost sharing for abortion of a pregnancy, and therefore this analysis does not attempt to quantify the economic impacts of prohibiting cost sharing. Rather, this analysis examines the impact of including this definition on top of the requirement already in statute.

Section 1 (2) (a) of SB 5242 includes "services related to the abortion of a pregnancy." The definition of an abortion of a pregnancy as described in this rule provides additional information on the related services: "... health services associated with completing that treatment, including but not limited to office visits, diagnostic and laboratory testing, and prescription drugs." Considering that the scope of the definition of an abortion of a pregnancy is not being expanded from what is already in statute, but merely providing clarifying language, there are no substantive costs to health carriers.

Further, OIC determined that the health carriers are not small businesses. A small business is defined as a business entity, including a sole proprietorship, corporation, partnership, or other legal entity that is owned and operated independently from all other businesses, and that has 50 or fewer employees (RCW 19.85.020). Using 2022 Quarterly Census of Employment and Wages (QCEW) data from the Washington employment security department, OIC calculated that the average number of employees per business is 113 for direct health and medical insurance carriers (NAICS code 524114). Under RCW 19.85.025(4), this rule does not impact small business, and is therefore exempt from a full small business economic impact statement.

$7,162$ (average annual employment for health carriers in WA) / 63 (Average number of firms in WA) = 113

WAC 284-44-046 Mammograms—Coverage requirements and exceptions.

This new section details the requirements put forth in chapter 245, Laws of 2023, regarding the cost sharing prohibitions for mammograms. This section is exempt under RCW 34.05.310 (4) (e) because proposed changes are dictated by statute without option.

WAC 284-46-110 Mammography coverage. This new section further details the requirements put forth in chapter 245, Laws of 2023, regarding the cost sharing prohibitions for mammograms. This section is exempt under RCW 34.05.310 (4) (e) because proposed changes are dictated by statute without option.

WAC 284-50-270 Mammograms—Coverage requirements and exceptions.

This new section further details the requirements put forth in chapter 245, Laws of 2023, regarding the cost sharing prohibitions for mammograms. This section is exempt under RCW 34.05.310 (4) (e) because proposed changes are dictated by statute without option.

WAC 284-170-130 Definitions. The definition of "Emergency medical condition" has been amended to have "... the meaning set forth in RCW 48.43.005." This section is exempt under RCW 19.85.025(3) - provides exclusions under RCW 34.05.310 (4) (c), as it incorporates existing statute by reference.

The definition of "Expedited prior authorization request" has been amended to have "... the meaning set forth in RCW 48.43. (Section 1, Chapter 382, Laws of 2023)." This section is exempt under RCW 19.85.025(3) - provides exclusions under RCW 34.05.310 (4)(c), as it incorporates existing statute by reference.

The definition of "Standard prior authorization request" has been amended to have "... the meaning set forth in RCW 48.43. (Section 1, Chapter 382, Laws of 2023).["] This section is exempt under RCW 19.85.025(3) - provides exclusions under RCW 34.05.310 (4)(c), as it incorporates existing statute by reference.

WAC 284-180-460 Health care benefit manager filings. This new section details the requirements put forth in chapter 245, Laws of 2023. The section is updated to include contracts and contract amendments filed between the health care benefit manager and a health carrier. This section is exempt under RCW 34.05.310 (4)(e) because proposed changes are dictated by statute without option.

Scope of exemption for rule proposal:

Is fully exempt.

October 18, 2023

Mike Kreidler

Insurance Commissioner

OTS-4934.2

AMENDATORY SECTION (Amending WSR 20-24-040, filed 11/23/20, effective 12/24/20)

WAC 284-43-0160 Definitions. Except as defined in other sub-chapters and unless the context requires otherwise, the following definitions shall apply throughout this chapter.

(1) "Adverse determination" has the same meaning as the definition of adverse benefit determination in RCW 48.43.005, and includes:

(a) The determination includes any decision by a health carrier's designee utilization review organization that a request for a benefit under the health carrier's health benefit plan does not meet the health carrier's requirements for medical necessity, appropriateness, health care setting, level of care, or effectiveness or is determined to be experimental or investigational and the requested benefit is therefore denied, reduced, or terminated or payment is not provided or made, in whole or in part for the benefit;

(b) The denial, reduction, termination, or failure to provide or make payment, in whole or in part, for a benefit based on a determination by a health carrier or its designee utilization review organization of a covered person's eligibility to participate in the health carrier's health benefit plan;

(c) Any prospective review or retrospective review determination that denies, reduces, or terminates or fails to provide or make payment in whole or in part for a benefit;

(d) A rescission of coverage determination; or

(e) A carrier's denial of an application for coverage.

(2) "Authorization" or "certification" means a determination by the carrier that an admission, extension of stay, or other health care

service has been reviewed and, based on the information provided, meets the clinical requirements for medical necessity, appropriateness, level of care, or effectiveness in relation to the applicable health plan.

(3) "Behavioral health agency" means an agency licensed or certified under RCW 71.24.037.

(4) "Clinical review criteria" means the written screens or screening procedures, decision rules, medical protocols, or clinical practice guidelines used by the carrier as an element in the evaluation of medical necessity and appropriateness of requested admissions, procedures, and services, including prescription drug benefits, under the auspices of the applicable plan. Clinical approval criteria has the same meaning as clinical review criteria.

(5) "Covered health condition" means any disease, illness, injury or condition of health risk covered according to the terms of any health plan.

(6) "Covered person" or "enrollee" means an individual covered by a health plan including a subscriber, policyholder, or beneficiary of a group plan.

(7) "Emergency fill" means a limited dispensed amount of medication that allows time for the processing of a preauthorization request. Emergency fill only applies to those circumstances where a patient presents at a contracted pharmacy with an immediate therapeutic need for a prescribed medication that requires a prior authorization.

(8) "Emergency medical condition" (~~means the emergent and acute onset of a symptom or symptoms, including severe pain or emotional distress, that would lead a prudent layperson acting reasonably to believe that a health condition exists that requires immediate medical, mental health or substance use disorder treatment attention, if failure to provide medical, mental health or substance use disorder treatment attention would result in serious impairment to bodily functions or serious dysfunction of a bodily organ or part, or would place the person's health in serious jeopardy~~) has the meaning set forth in RCW 48.43.005.

(9) "Emergency services" has the meaning set forth in RCW 48.43.005.

(10) "Enrollee point-of-service cost-sharing" or "cost-sharing" means amounts paid to health carriers directly providing services, health care providers, or health care facilities by enrollees and may include copayments, coinsurance, or deductibles.

(11) "Expedited prior authorization request" (~~means any request by a provider or facility for approval of a service where the passage of time could seriously jeopardize the life or health of the enrollee, seriously jeopardize the enrollee's ability to regain maximum function, or, in the opinion of a provider or facility with knowledge of the enrollee's medical condition, would subject the enrollee to severe pain that cannot be adequately managed without the service that is the subject of the request~~) has the meaning set forth in RCW 48.43.830.

(12) "Facility" means an institution providing health care services including, but not limited to, hospitals and other licensed inpatient centers, ambulatory surgical or treatment centers, skilled nursing centers, residential treatment centers, diagnostic, laboratory, and imaging centers, and rehabilitation and other therapeutic settings, and as defined in RCW 48.43.005.

(13) "Formulary" means a listing of drugs used within a health plan. A formulary must include drugs covered under an enrollee's medical benefit.

(14) "Grievance" has the meaning set forth in RCW 48.43.005.

(15) "Health care provider" or "provider" means:

(a) A person regulated under Title 18 RCW or chapter 70.127 RCW, to practice health or health-related services or otherwise practicing health care services in this state consistent with state law; or

(b) An employee or agent of a person described in (a) of this subsection, acting in the course and scope of his or her employment.

(16) "Health care service" or "health service" means that service offered or provided by health care facilities and health care providers relating to the prevention, cure, or treatment of illness, injury, or disease.

(17) "Health carrier" or "carrier" means a disability insurance company regulated under chapter 48.20 or 48.21 RCW, a health care service contractor as defined in RCW 48.44.010, and a health maintenance organization as defined in RCW 48.46.020, and includes "issuers" as that term is used in the Patient Protection and Affordable Care Act (P.L. 111-148, as amended (2010)).

(18) "Health plan" or "plan" means any individual or group policy, contract, or agreement offered by a health carrier to provide, arrange, reimburse, or pay for health care service except the following:

(a) Long-term care insurance governed by chapter 48.84 RCW;

(b) Medicare supplemental health insurance governed by chapter 48.66 RCW;

(c) Limited health care service offered by limited health care service contractors in accordance with RCW 48.44.035;

(d) Disability income;

(e) Coverage incidental to a property/casualty liability insurance policy such as automobile personal injury protection coverage and homeowner guest medical;

(f) Workers' compensation coverage;

(g) Accident only coverage;

(h) Specified disease and hospital confinement indemnity when marketed solely as a supplement to a health plan;

(i) Employer-sponsored self-funded health plans;

(j) Dental only and vision only coverage; and

(k) Plans deemed by the insurance commissioner to have a short-term limited purpose or duration, or to be a student-only plan that is guaranteed renewable while the covered person is enrolled as a regular full-time undergraduate or graduate student at an accredited higher education institution, after a written request for such classification by the carrier and subsequent written approval by the insurance commissioner.

(19) "Immediate therapeutic needs" means those needs where passage of time without treatment would result in imminent emergency care, hospital admission or might seriously jeopardize the life or health of the patient or others in contact with the patient.

(20) "Indian health care provider" means:

(a) The Indian Health Service, an agency operated by the U.S. Department of Health and Human Services established by the Indian Health Care Improvement Act, Section 601, 25 U.S.C. §1661;

(b) An Indian tribe, as defined in the Indian Health Care Improvement Act, Section 4(14), 25 U.S.C. §1603(14), that operates a health program under a contract or compact to carry out programs of the Indian Health Service pursuant to the Indian Self-Determination and Education Assistance Act (ISDEAA), 25 U.S.C. §450 et seq.;

(c) A tribal organization, as defined in the Indian Health Care Improvement Act, Section 4(26), 25 U.S.C. §1603(26), that operates a

health program under a contract or compact to carry out programs of the Indian Health Service pursuant to the ISDEAA, 25 U.S.C. §450 et seq.;

(d) An Indian tribe, as defined in the Indian Health Care Improvement Act, Section 4(14), 25 U.S.C. §1603(14), or tribal organization, as defined in the Indian Health Care Improvement Act, Section 4(26), 25 U.S.C. §1603(26), that operates a health program with funding provided in whole or part pursuant to 25 U.S.C. §47 (commonly known as the Buy Indian Act); or

(e) An urban Indian organization that operates a health program with funds in whole or part provided by Indian Health Service under a grant or contract awarded pursuant to Title V of the Indian Health Care Improvement Act, Section 4(29), 25 U.S.C. §1603(29).

(21) "Managed care plan" means a health plan that coordinates the provision of covered health care services to a covered person through the use of a primary care provider and a network.

(22) "Medically necessary" or "medical necessity" in regard to mental health services and pharmacy services is a carrier determination as to whether a health service is a covered benefit because the service is consistent with generally recognized standards within a relevant health profession.

(23) "Mental health provider" means a health care provider or a health care facility authorized by state law to provide mental health services.

(24) "Mental health services" means in-patient or out-patient treatment including, but not limited to, partial hospitalization, residential treatment, out-patient facility-based treatment, intensive outpatient treatment, emergency services, or prescription drugs to manage, stabilize or ameliorate the effects of a mental disorder listed in the most current version of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* published by the American Psychiatric Association, including diagnoses and treatment for substance use disorder.

(25) "Network" means the group of participating providers and facilities providing health care services to a particular health plan or line of business (individual, small, or large group). A health plan network for issuers offering more than one health plan may be smaller in number than the total number of participating providers and facilities for all plans offered by the carrier.

(26) "Participating provider" and "participating facility" means a facility or provider who, under a contract with the health carrier or with the carrier's contractor or subcontractor, has agreed to provide health care services to covered persons with an expectation of receiving payment, other than coinsurance, copayments, or deductibles, from the health carrier rather than from the covered person.

(27) "Person" means an individual, a corporation, a partnership, an association, a joint venture, a joint stock company, a trust, an unincorporated organization, any similar entity, or any combination of the foregoing.

(28) "Pharmacy services" means the practice of pharmacy as defined in chapter 18.64 RCW and includes any drugs or devices as defined in chapter 18.64 RCW.

(29) "Predetermination request" means a voluntary request from an enrollee or provider or facility for a carrier or its designated or contracted representative to determine if a service is a benefit, in relation to the applicable plan.

(30) "Preservice requirement" means any requirement that a carrier places on a provider or facility that may limit their ability to deliver a service that requires prior authorization. Examples include limits on the type of provider or facility delivering the service, a service that must be provided before a specific service will be authorized, site of care/place of service, and whether a provider administered medication needs to be obtained from a specialty pharmacy.

(31) "Primary care provider" means a participating provider who supervises, coordinates, or provides initial care or continuing care to a covered person, and who may be required by the health carrier to initiate a referral for specialty care and maintain supervision of health care services rendered to the covered person.

(32) "Preexisting condition" means any medical condition, illness, or injury that existed any time prior to the effective date of coverage.

(33) "Premium" means all sums charged, received, or deposited by a health carrier as consideration for a health plan or the continuance of a health plan. Any assessment or any "membership," "policy," "contract," "service," or similar fee or charge made by a health carrier in consideration for a health plan is deemed part of the premium. "Premium" shall not include amounts paid as enrollee point-of-service cost-sharing.

(34) "Prior authorization" means a mandatory process that a carrier or its designated or contracted representative requires a provider or facility to follow to determine if a service is a benefit and meets the requirements for medical necessity, clinical appropriateness, level of care, or effectiveness in relation to the applicable plan. Prior authorization occurs before the service is delivered. For purposes of WAC 284-43-2050 and 284-43-2060, any term used by a carrier or its designated or contracted representative to describe this process is prior authorization. For example, prior authorization has also been referred to as "prospective review," "preauthorization," or "precertification."

(35) "Service area" means the geographic area or areas where a specific product is issued, accepts members or enrollees, and covers provided services. A service area must be defined by the county or counties included unless, for good cause, the commissioner permits limitation of a service area by zip code. Good cause includes geographic barriers within a service area, or other conditions that make offering coverage throughout an entire county unreasonable.

(36) "Small group plan" means a health plan issued to a small employer as defined under RCW 48.43.005(33) comprising from one to ~~((fifty))~~ 50 eligible employees.

(37) ~~"Standard prior authorization request" ((means a request by a provider or facility for approval of a service where the request is made in advance of the enrollee obtaining a service that is not required to be expedited))~~ has the meaning set forth in RCW 48.43.830.

(38) "Step therapy protocol" means a drug utilization management prior authorization protocol or program that establishes the specific sequence in which prescription drugs are covered by a health carrier for a medical condition.

(39) "Substance use disorder" means a substance-related or addictive disorder listed in the most current version of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* published by the American Psychiatric Association.

(40) "Substitute drug" means a prescription medication, drug or therapy that a carrier covers based on an exception request. When the

exception request is based on therapeutic equivalence, a substitute drug means a therapeutically equivalent substance as defined in chapter 69.41 RCW.

(41) "Supplementary pharmacy services" or "other pharmacy services" means pharmacy services involving the provision of drug therapy management and other services not required under state and federal law but that may be rendered in connection with dispensing, or that may be used in disease prevention or disease management.

(42) "Withdrawal management services" means (~~twenty-four~~) 24 hour medically managed or medically monitored detoxification and assessment and treatment referral for adults or adolescents withdrawing from alcohol or drugs, which may include induction of medications for addiction recovery.

[Statutory Authority: RCW 48.02.060, 48.20.460, 48.43.0128, 48.44.050, and 48.46.200. WSR 20-24-040, § 284-43-0160, filed 11/23/20, effective 12/24/20. Statutory Authority: RCW 48.02.060, 48.43.510, 48.43.515, 48.43.520, 48.43.525, 48.43.530, and 48.165.030. WSR 17-12-069 (Matter No. R 2016-19), § 284-43-0160, filed 6/5/17, effective 7/6/17. Statutory Authority: RCW 48.02.060, 48.43.510. WSR 17-01-166 (Matter No. R 2016-16), § 284-43-0160, filed 12/21/16, effective 7/1/17. WSR 16-01-081, recodified as § 284-43-0160, filed 12/14/15, effective 12/14/15. Statutory Authority: RCW 48.02.060, 48.20.450, 48.20.460, 48.165.0301, 48.43.525, 48.43.530, 48.44.020, 48.44.050, 48.46.060(2), and 48.46.200. WSR 15-24-074 (Matter No. R 2014-13), § 284-43-130, filed 11/25/15, effective 7/1/16. Statutory Authority: RCW 48.02.060, 48.18.120, 48.20.460, 48.43.505, 48.43.510, 48.43.515, 48.43.530, 48.43.535, 48.44.050, 48.46.200, 48.20.450, 48.44.020, 48.44.080, 48.46.030, 45 C.F.R. §§ 156.230, 156.235, and 156.245. WSR 14-10-017 (Matter No. R 2013-22), § 284-43-130, filed 4/25/14, effective 5/26/14. Statutory Authority: RCW 48.02.060, 48.43.525, 48.43.530, 48.43.535, and The Patient Protection and Affordable Care Act, P.L. 111-148, as amended (2010). WSR 12-23-005 (Matter No. R 2011-11), § 284-43-130, filed 11/7/12, effective 11/20/12. Statutory Authority: RCW 48.02.060, 48.18.120, 48.20.450, 48.20.460, 48.30.010, 48.44.050, 48.46.100, 48.46.200, 48.43.505, 48.43.510, 48.43.515, 48.43.520, 48.43.525, 48.43.530, 48.43.535. WSR 01-03-033 (Matter No. R 2000-02), § 284-43-130, filed 1/9/01, effective 7/1/01. Statutory Authority: RCW 48.02.060, 48.20.450, 48.20.460, 48.30.010, 48.44.050, 48.46.200, 2000 c 79 § 26, and RCW 48.30.040, 48.44.110, 48.46.400. WSR 01-03-032 (Matter No. R 2000-04), § 284-43-130, filed 1/9/01, effective 2/9/01. Statutory Authority: RCW 48.02.060, 48.30.010, 48.44.050, 48.46.200, 48.30.040, 48.44.110 and 48.46.400. WSR 99-19-032 (Matter No. R 98-7), § 284-43-130, filed 9/8/99, effective 10/9/99. Statutory Authority: RCW 48.02.060, 48.20.450, 48.20.460, 48.30.010, 48.44.020, 48.44.050, 48.44.080, 48.46.030, 48.46.060(2), 48.46.200 and 48.46.243. WSR 98-04-005 (Matter No. R 97-3), § 284-43-130, filed 1/22/98, effective 2/22/98.]

AMENDATORY SECTION (Amending WSR 21-24-032, filed 11/22/21, effective 12/23/21)

WAC 284-43-7220 Coverage required. A health plan must provide coverage for all services and supplies required under RCW 48.43.072

and 48.43.073. A student health plan must also provide coverage for all services and supplies required under RCW 48.43.072 and 48.43.073.

(1) Required coverage of contraceptive services and supplies includes, but is not limited to:

(a) All prescription and over-the-counter contraceptive drugs, devices, and other products approved by the Federal Food and Drug Administration;

(b) Voluntary sterilization procedures; and

(c) The consultations, examinations, procedures, and medical services that are necessary to prescribe, dispense, insert, deliver, distribute, administer, or remove the drugs, devices, and other products or services in (a) and (b) of this subsection.

(2) (a) A health plan or student health plan that provides coverage for maternity care or services must also provide a covered person with substantially equivalent coverage to permit the abortion of a pregnancy. For the coverage to be substantially equivalent, a health plan or student health plan must not apply ~~((cost-sharing or))~~ coverage limitations differently for abortion and related services than for maternity care and its related services unless the difference provides the enrollee with access to care and treatment commensurate with the enrollee's specific medical needs, without imposing a surcharge or other additional cost to the enrollee ~~((beyond normal cost-sharing requirements under the plan))~~.

(b) Except as provided in (c) of this subsection, for health plans issued or renewed on or after January 1, 2024, a health carrier may not impose cost-sharing for abortion of a pregnancy.

(c) For a health plan that provides coverage for abortion of a pregnancy, and is offered as a qualifying health plan for a health savings account, the health carrier shall establish the plan's cost-sharing for the coverage required by this section at the minimum level necessary to preserve the enrollee's ability to claim tax exempt contributions and withdrawals from the enrollee's health savings account under internal revenue service laws and regulations.

(3) This subchapter does not diminish or affect any rights or responsibilities provided under RCW 48.43.065.

(4) For purposes of this section, "abortion of a pregnancy" includes medical treatment intended to induce termination of a pregnancy, except for the purpose of producing a live birth, and all medically necessary care associated with completing treatment including, but not limited to, office visits, counseling, diagnostic and laboratory testing, and prescription drugs.

(5) Coverage for abortion of a pregnancy may be subject to terms and conditions generally applicable to the health plan's or student health plan's coverage of maternity care or services.

[Statutory Authority: RCW 48.02.060 and 2021 c 53. WSR 21-24-032 (Matter No. R 2021-13), § 284-43-7220, filed 11/22/21, effective 12/23/21. Statutory Authority: RCW 48.02.060, 48.43.072, 48.43.073, and 2019 c 399. WSR 19-24-039, § 284-43-7220, filed 11/26/19, effective 12/27/19.]

OTS-4935.3

NEW SECTION

WAC 284-43-5937 Hearing instrument coverage. (1) The purpose of this regulation is to effectuate the provisions of chapter 245, Laws of 2023, by requiring health carriers to include coverage for hearing instruments regardless of network status.

(2) This section applies to health carriers offering nongrandfathered group health plans, other than small group health plans, issued or renewed on or after January 1, 2024.

(3) The hearing instruments and coverage requirements referenced in this section have the same meaning as in RCW 48.43.135.

(4) Health carriers shall provide coverage for hearing instruments at no less than \$3,000 per ear with hearing loss every 36 months. Any enrollee cost-sharing applied to this coverage must ensure that the amount paid by the health plan will be no less than \$3,000 except to the extent required otherwise in RCW 48.43.135(4).

(5) Enrollees can purchase a hearing instrument beyond the cost limitations outlined in this section and coverage must still be provided at no less than \$3,000 per ear with hearing loss every 36 months.

(6) The 36-month time period referenced in this section and RCW 48.43.135(3), is specific to the enrollee's current health carrier.

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OTS-4936.2

AMENDATORY SECTION (Amending WSR 92-16-009, filed 7/23/92, effective 8/23/92)

WAC 284-44-046 Mammograms—Coverage requirements and exceptions.

(1) The purpose of this regulation is to effectuate the provisions of RCW 48.44.325 by establishing definitions for the exceptions to coverage for mammograms. This regulation shall apply to every group and individual health care service contract which is delivered or issued for delivery or renewed in this state on or after September 1, 1992, that provides for hospital or medical care.

(2) For the purposes of RCW 48.44.325 and this regulation, supplemental contracts covering specified disease shall be defined to mean and include only those contracts which provide benefits to a member only in the event that the member contracts the disease or diseases specifically named in the contract. Also for the purposes of RCW 48.44.325 and this regulation, supplemental contracts covering limited benefits shall be defined to mean and include only those contracts providing only one of the following benefits: Hospital indemnity, accident only coverage, dental care, vision care, mental health care, chemical dependency care, pharmaceutical care, and podiatric care.

(3) Coverage of mammograms may be subject to standard contract provisions, except the cost-sharing provisions prohibited by RCW 48.43.076, which may be applicable to other diagnostic X-ray benefits (~~(such as deductible or copayment provisions)~~).

(4) For purposes of this section:

(a) "Diagnostic breast examination" means a medically necessary and appropriate examination of the breast, as defined in RCW 48.43.076. Diagnostic breast examinations are used to evaluate an abnormality either seen or suspected from a breast cancer screening examination, or detected by another means of examination.

(b) "Supplemental breast examination" has the meaning set forth in RCW 48.43.076.

(5) For purposes of RCW 48.44.325 and this regulation, a contract is "renewed" when it is continued beyond the earliest date, after September 1, 1992, upon which, at the health care service contractor's sole option:

(a) The contract's termination could have been effectuated, for other than nonpayment of premium; or

(b) The contract could have been amended to add the mammogram coverage, with, if justified, an appropriate rate increase for any increased cost in providing mammogram coverage under the contract.

The failure of the health care service contractor to take any such steps does not prevent the contract from being "renewed." The intent of this section is to bring the mammogram coverage under the maximum number of contracts possible at the earliest possible time, by permitting the health care service contractor to exclude such coverage from only those contracts as to which there exists a right of renewal on the part of the contract holder without any change in any provision of the contract.

[Statutory Authority: RCW 48.02.060 (3) (a) and 48.44.050. WSR 92-16-009 (Order R 92-4), § 284-44-046, filed 7/23/92, effective 8/23/92.]

OTS-4937.3

NEW SECTION

WAC 284-46-110 Mammography coverage. (1) The purpose of this regulation is to effectuate the provisions of RCW 48.43.076, by requiring coverage and prohibiting cost-sharing for certain types of mammography services.

(2) Except as provided in subsection (3) of this section, for nongrandfathered health plans issued or renewed on or after January 1, 2024, that include coverage of supplemental and diagnostic breast examinations, health carriers may not impose cost-sharing for such examinations.

(3) For a health plan that provides coverage of supplemental and diagnostic breast examinations and is offered as a qualifying health plan for a health savings account, the health carrier shall establish the plan's cost-sharing for the coverage of the services described in this section at the minimum level necessary to preserve the enrollee's ability to claim tax exempt contributions from their health savings account under Internal Revenue Service laws and regulations.

(4) For purposes of this section:

(a) "Diagnostic breast examination" means a medically necessary and appropriate examination of the breast, as defined in RCW 48.43.076. Diagnostic breast examinations are used to evaluate an ab-

normality either seen or suspected from a breast cancer screening examination, or detected by another means of examination.

(b) "Supplemental breast examination" has the meaning set forth in RCW 48.43.076.

(5) Coverage of mammograms may be subject to standard contract provisions, other than the cost-sharing provisions prohibited by RCW 48.43.076, which may be applicable to other diagnostic X-ray benefits.

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OTS-4938.2

AMENDATORY SECTION (Amending WSR 92-19-061, filed 9/11/92, effective 10/12/92)

WAC 284-50-270 Mammograms—Coverage requirements and exceptions.

(1) The purpose of this regulation is to effectuate the provisions of RCW 48.20.393 and 48.21.225, by establishing definitions for the exceptions to coverage for mammograms. This regulation shall apply to every group and individual disability insurance contract, which is delivered or issued for delivery or renewed in this state on or after September 1, 1992, that provides coverage for hospital or medical expenses.

(2) For the purposes of RCW 48.20.393 and 48.21.225 and this regulation, supplemental contracts covering specified disease shall be defined to mean and include only those contracts or policies which provide benefits to a policyholder only in the event that the policyholder contracts the disease or diseases specifically named in the policy. Also for the purposes of RCW 48.20.393 and 48.21.225 and this regulation, supplemental contracts covering limited benefits shall be defined to mean and include only those contracts providing only one of the following benefits: Hospital indemnity, accident only coverage, dental care, vision care, mental health care, chemical dependency care, pharmaceutical care, and podiatric care.

(3) Coverage of mammograms may be subject to standard policy provisions, other than the cost-sharing provisions prohibited by RCW 48.43.076, which may be applicable to other diagnostic X-ray benefits (~~((such as deductible or copayment provisions))~~).

(4) For purposes of RCW 48.20.393 and 48.21.225 and this regulation, a contract is "renewed" when it is continued beyond the earliest date, after September 1, 1992, upon which, at the insurer's sole option:

(a) The contract's termination could have been effectuated, for other than nonpayment of premium; or

(b) The contract could have been amended to add the mammogram coverage, with, if justified, an appropriate rate increase for any increased cost in providing mammogram coverage under the contract.

The failure of the insurer to take any such steps does not prevent the contract from being "renewed." The intent of this section is to bring the mammogram coverage under the maximum number of contracts possible at the earliest possible time, by permitting the insurer to exclude such coverage from only those contracts as to which there ex-

ists a right of renewal on the part of the insured without any change in any provision of the contract.

(5) For purposes of this section:

(a) "Diagnostic breast examination" means a medically necessary and appropriate examination of the breast, as defined in RCW 48.43.076. Diagnostic breast examinations are used to evaluate an abnormality either seen or suspected from a breast cancer screening examination, or detected by another means of examination.

(b) "Supplemental breast examination" has the meaning set forth in RCW 48.43.076.

[Statutory Authority: RCW 48.02.060 (3)(a). WSR 92-19-061 (Order R 92-13), § 284-50-270, filed 9/11/92, effective 10/12/92.]

OTS-4939.1

AMENDATORY SECTION (Amending WSR 22-22-104, filed 11/2/22, effective 12/3/22)

WAC 284-170-130 Definitions. Except as defined in other sub-chapters and unless the context requires otherwise, the following definitions shall apply throughout this chapter.

(1) "Adverse determination" has the same meaning as the definition of adverse benefit determination in RCW 48.43.005, and includes:

(a) The determination includes any decision by a health carrier's designee utilization review organization that a request for a benefit under the health carrier's health benefit plan does not meet the health carrier's requirements for medical necessity, appropriateness, health care setting, level of care, or effectiveness or is determined to be experimental or investigational and the requested benefit is therefore denied, reduced, or terminated or payment is not provided or made, in whole or in part for the benefit;

(b) The denial, reduction, termination, or failure to provide or make payment, in whole or in part, for a benefit based on a determination by a health carrier or its designee utilization review organization of a covered person's eligibility to participate in the health carrier's health benefit plan;

(c) Any prospective review or retrospective review determination that denies, reduces, or terminates or fails to provide or make payment in whole or in part for a benefit;

(d) A rescission of coverage determination; or

(e) A carrier's denial of an application for coverage.

(2) "Allowed amount" has the meaning set forth in RCW 48.43.005.

(3)(a) "Audio-only telemedicine" means the delivery of health care services through the use of audio-only technology, permitting real-time communication between the patient at the originating site and the provider, for the purpose of diagnosis, consultation, or treatment.

(b) "Audio-only telemedicine" does not include:

(i) The use of facsimile, email, or text messages, unless the use of text-like messaging is necessary to ensure effective communication with individuals who have a hearing, speech, or other disability; or

(ii) The delivery of health care services that are customarily delivered by audio-only technology and customarily not billed as separate services by the provider, such as the sharing of laboratory results.

(4) "Authorization" or "certification" means a determination by the carrier that an admission, extension of stay, or other health care service has been reviewed and, based on the information provided, meets the clinical requirements for medical necessity, appropriateness, level of care, or effectiveness in relation to the applicable health plan.

(5) "Clinical review criteria" means the written screens, or screening procedures, decision rules, medical protocols, or clinical practice guidelines used by the carrier as an element in the evaluation of medical necessity and appropriateness of requested admissions, procedures, and services, including prescription drug benefits, under the auspices of the applicable health plan. Clinical approval criteria has the same meaning as clinical review criteria.

(6) "Covered health condition" means any disease, illness, injury or condition of health risk covered according to the terms of any health plan.

(7) "Covered person" or "enrollee" means an individual covered by a health plan including a subscriber, policyholder, or beneficiary of a group plan.

(8) "Disciplining authority" has the meaning set forth in RCW 18.130.020.

(9) "Distant site" has the meaning set forth in RCW 48.43.735.

(10) "Emergency medical condition" (~~means the emergent and acute onset of a symptom or symptoms, including severe pain or emotional distress, that would lead a prudent layperson acting reasonably to believe that a health condition exists that requires immediate medical, mental health, or substance use disorder treatment attention, if failure to provide medical, mental health, or substance use disorder treatment attention would result in serious impairment to bodily functions or serious dysfunction of a bodily organ or part, or would place the person's health in serious jeopardy~~) has the meaning set forth in RCW 48.43.005.

(11) "Emergency services" has the meaning set forth in RCW 48.43.005.

(12) "Enrollee point-of-service cost-sharing" or "cost-sharing" has the meaning set forth in RCW 48.43.005.

(13) "Established relationship" means the provider providing audio-only telemedicine has access to sufficient health records to ensure safe, effective, and appropriate care services and:

(a) For health care services included in the essential health benefits category of mental health and substance use disorder services, including behavioral health treatment:

(i) The covered person has had, within the past three years, at least one in-person appointment, or at least one real-time interactive appointment using both audio and video technology, with:

(A) The provider providing audio-only telemedicine;

(B) A provider employed at the same medical group, at the same clinic, or by the same integrated delivery system operated by a carrier licensed under chapter 48.44 or 48.46 RCW as the provider providing audio-only telemedicine; or

(C) A locum tenens or other provider who is the designated back up or substitute provider for the provider providing audio-only telemedicine who is on leave and is not associated with an established

medical group, clinic, or integrated delivery system operated by a carrier licensed under chapter 48.44 or 48.46 RCW; or

(ii) The covered person was referred to the provider providing audio-only telemedicine by another provider who has:

(A) Had, within the past three years, at least one in-person appointment, or at least one real-time interactive appointment using both audio and video technology, with the covered person; and

(B) Provided relevant medical information to the provider providing audio-only telemedicine.

(C) A referral includes circumstances in which the provider who has had at least one in-person appointment, or at least one real-time interactive appointment using both audio and video technology, with the covered person participates in the audio-only telemedicine encounter with the provider to whom the covered person has been referred.

(b) For any other health care service:

(i) The covered person has had, within the past two years, at least one in-person appointment, or, until ~~((January))~~ July 1, 2024, at least one real-time interactive appointment using both audio and video technology, with:

(A) The provider providing audio-only telemedicine; or

(B) A provider employed at the same medical group, at the same clinic, or by the same integrated delivery system operated by a carrier licensed under chapter 48.44 or 48.46 RCW as the provider providing audio-only telemedicine; or

(C) A locum tenens or other provider who is the designated back up or substitute provider for the provider providing audio-only telemedicine who is on leave and is not associated with an established medical group, clinic, or integrated delivery system operated by a carrier licensed under chapter 48.44 or 48.46 RCW; or

(ii) The covered person was referred to the provider providing audio-only telemedicine by another provider who has:

(A) Had, within the past two years, at least one in-person appointment or, until ~~((January))~~ July 1, 2024, at least one real-time interactive appointment using both audio and video technology, with the covered person; and

(B) Provided relevant medical information to the provider providing audio-only telemedicine.

(C) A referral includes circumstances in which the provider who has had at least one in-person appointment, or, until ~~((January))~~ July 1, 2024, at least one real-time interactive appointment using both audio and video technology, with the covered person participating in the audio-only telemedicine encounter with the provider to whom the covered person has been referred.

(14) "Expedited prior authorization request" has the meaning set forth in RCW 48.43.830.

(15) "Facility" means an institution providing health care services including, but not limited to, hospitals and other licensed inpatient centers, ambulatory surgical or treatment centers, skilled nursing centers, residential treatment centers, diagnostic, laboratory, and imaging centers, and rehabilitation and other therapeutic settings, and as defined in RCW 48.43.005.

~~((15))~~ (16) "Formulary" means a listing of drugs used within a health plan.

~~((16))~~ (17) "Grievance" has the meaning set forth in RCW 48.43.005.

~~((17))~~ (18) "Health care provider" or "provider" means:

(a) A person regulated under Title 18 RCW or chapter 70.127 RCW, to practice health or health-related services or otherwise practicing health care services in this state consistent with state law; or

(b) An employee or agent of a person described in (a) of this subsection, acting in the course and scope of his or her employment.

~~((18))~~ (19) "Health care service" or "health service" means that service offered or provided by health care facilities and health care providers relating to the prevention, cure, or treatment of illness, injury, or disease.

~~((19))~~ (20) "Health carrier" or "carrier" means a disability insurance company regulated under chapter 48.20 or 48.21 RCW, a health care service contractor as defined in RCW 48.44.010, and a health maintenance organization as defined in RCW 48.46.020, and includes "issuers" as that term is used in The Patient Protection and Affordable Care Act (P.L. 111-148, as amended (2010)).

~~((20))~~ (21) "Health plan" or "plan" means any individual or group policy, contract, or agreement offered by a health carrier to provide, arrange, reimburse, or pay for health care service except the following:

(a) Long-term care insurance governed by chapter 48.84 RCW;

(b) Medicare supplemental health insurance governed by chapter 48.66 RCW;

(c) Limited health care service offered by limited health care service contractors in accordance with RCW 48.44.035;

(d) Disability income;

(e) Coverage incidental to a property/casualty liability insurance policy such as automobile personal injury protection coverage and homeowner guest medical;

(f) Workers' compensation coverage;

(g) Accident only coverage;

(h) Specified disease and hospital confinement indemnity when marketed solely as a supplement to a health plan;

(i) Employer-sponsored self-funded health plans;

(j) Dental only and vision only coverage; and

(k) Plans deemed by the insurance commissioner to have a short-term limited purpose or duration, or to be a student-only plan that is guaranteed renewable while the covered person is enrolled as a regular full-time undergraduate or graduate student at an accredited higher education institution, after a written request for such classification by the carrier and subsequent written approval by the insurance commissioner.

~~((21))~~ (22) "Hospital" has the meaning set forth in RCW 48.43.735.

~~((22))~~ (23) "Indian health care provider" means:

(a) The Indian Health Service, an agency operated by the U.S. Department of Health and Human Services established by the Indian Health Care Improvement Act, Section 601, 25 U.S.C. Sec. 1661;

(b) An Indian tribe, as defined in the Indian Health Care Improvement Act, Section 4(14), 25 U.S.C. Sec. 1603(14), that operates a health program under a contract or compact to carry out programs of the Indian Health Service pursuant to the Indian Self-Determination and Education Assistance Act (ISDEAA), 25 U.S.C. Sec. 450 et seq.;

(c) A tribal organization, as defined in the Indian Health Care Improvement Act, Section 4(26), 25 U.S.C. Sec. 1603(26), that operates a health program under a contract or compact to carry out programs of the Indian Health Service pursuant to the ISDEAA, 25 U.S.C. Sec. 450 et seq.;

(d) An Indian tribe, as defined in the Indian Health Care Improvement Act, Section 4(14), 25 U.S.C. Sec. 1603(14), or tribal organization, as defined in the Indian Health Care Improvement Act, Section 4(26), 25 U.S.C. Sec. 1603(26), that operates a health program with funding provided in whole or part pursuant to 25 U.S.C. Sec. 47 (commonly known as the Buy Indian Act); or

(e) An urban Indian organization that operates a health program with funds in whole or part provided by Indian Health Service under a grant or contract awarded pursuant to Title V of the Indian Health Care Improvement Act, Section 4(29), 25 U.S.C. Sec. 1603(29).

~~((23))~~ (24) "Managed care plan" means a health plan that coordinates the provision of covered health care services to a covered person through the use of a primary care provider and a network.

~~((24))~~ (25) "Medically necessary" or "medical necessity" in regard to mental health services and pharmacy services is a carrier determination as to whether a health service is a covered benefit because the service is consistent with generally recognized standards within a relevant health profession.

~~((25))~~ (26) "Mental health provider" means a health care provider or a health care facility authorized by state law to provide mental health services.

~~((26))~~ (27) "Mental health services" means in-patient or out-patient treatment including, but not limited to, partial hospitalization, residential treatment, out-patient facility-based treatment, intensive outpatient treatment, emergency services, or prescription drugs to manage, stabilize, or ameliorate the effects of a mental disorder listed in the most current version of the Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association, including diagnoses and treatment for substance use disorder.

~~((27))~~ (28) "Network" means the group of participating providers and facilities providing health care services to a particular health plan or line of business (individual, small, or large group). A health plan network for issuers offering more than one health plan may be smaller in number than the total number of participating providers and facilities for all plans offered by the carrier.

~~((28))~~ (29) "Originating site" means the physical location of a patient receiving health care services through telemedicine, and includes those sites described in WAC 284-170-433.

~~((29))~~ (30) "Out-patient therapeutic visit" or "out-patient visit" means a clinical treatment session with a mental health provider of a duration consistent with relevant professional standards used by the carrier to determine medical necessity for the particular service being rendered, as defined in Physicians Current Procedural Terminology, published by the American Medical Association.

~~((30))~~ (31) "Participating provider" and "participating facility" mean a facility or provider who, under a contract with the health carrier or with the carrier's contractor or subcontractor, has agreed to provide health care services to covered persons with an expectation of receiving payment, other than coinsurance, copayments, or deductibles, from the health carrier rather than from the covered person.

~~((31))~~ (32) "Patient consent" means a voluntary and informed decision by a patient, following an explanation by the provider or auxiliary personnel under the general supervision of the provider presented in a manner understandable to the patient that is free of undue influence, fraud or duress, to consent to a provider billing the pa-

tient or the patient's health plan for an audio-only telemedicine service under RCW 48.43.735 or WAC 284-170-433.

~~((32))~~ (33) "Person" means an individual, a corporation, a partnership, an association, a joint venture, a joint stock company, a trust, an unincorporated organization, any similar entity, or any combination of the foregoing.

~~((33))~~ (34) "Pharmacy services" means the practice of pharmacy as defined in chapter 18.64 RCW and includes any drugs or devices as defined in chapter 18.64 RCW.

~~((34))~~ (35) "Primary care provider" means a participating provider who supervises, coordinates, or provides initial care or continuing care to a covered person, and who may be required by the health carrier to initiate a referral for specialty care and maintain supervision of health care services rendered to the covered person.

~~((35))~~ (36) "Preexisting condition" means any medical condition, illness, or injury that existed any time prior to the effective date of coverage.

~~((36))~~ (37) "Premium" means all sums charged, received, or deposited by a health carrier as consideration for a health plan or the continuance of a health plan. Any assessment or any "membership," "policy," "contract," "service," or similar fee or charge made by a health carrier in consideration for a health plan is deemed part of the premium. "Premium" shall not include amounts paid as enrollee point-of-service cost-sharing.

~~((37))~~ (38) "Real time communication" means synchronous and live communication between a provider and a patient. It does not include delayed or recorded messages, such as email, facsimile or voice-mail.

~~((38))~~ (39) "Same amount of compensation" means providers are reimbursed by a carrier using the same allowed amount for telemedicine services as they would if the service had been provided in-person unless negotiation has been undertaken under RCW 48.43.735 or WAC 284-170-433(2). Where consumer cost-sharing applies to telemedicine services, the consumer's payment combined with the carrier's payment must be the same amount of compensation, or allowed amount, as the carrier would pay the provider if the telemedicine service had been provided in person. Where an alternative payment methodology other than fee-for-service payment would apply to an in-person service, "same amount of compensation" means providers are reimbursed by a carrier using the same alternative payment methodology that would be used for the same service if provided in-person, unless negotiation has been undertaken under RCW 48.43.735 or WAC 284-170-433(2).

~~((39))~~ (40) "Service area" means the geographic area or areas where a specific product is issued, accepts members or enrollees, and covers provided services. A service area must be defined by the county or counties included unless, for good cause, the commissioner permits limitation of a service area by zip code. Good cause includes geographic barriers within a service area, or other conditions that make offering coverage throughout an entire county unreasonable.

~~((40))~~ (41) "Small group plan" means a health plan issued to a small employer as defined under RCW 48.43.005(34) comprising from one to 50 eligible employees.

~~((41))~~ (42) "Standard prior authorization request" has the meaning set forth in RCW 48.43.830.

(43) "Store and forward technology" has the meaning set forth in RCW 48.43.735.

~~((42))~~ (44) "Substance use disorder services" means in-patient or out-patient treatment including, but not limited to, partial hospitalization, residential treatment, or out-patient facility-based treatment, intensive outpatient treatment, emergency services, or prescription drugs to manage, stabilize, or ameliorate the effects of a substance use disorder listed in the most current version of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) published by the American Psychiatric Association, including diagnoses and treatment for substance use disorder.

~~((43))~~ (45) "Substitute drug" means a prescription medication, drug or therapy that a carrier covers based on an exception request. When the exception request is based on therapeutic equivalence, a substitute drug means a therapeutically equivalent substance as defined in chapter 69.41 RCW.

~~((44))~~ (46) "Supplementary pharmacy services" or "other pharmacy services" means pharmacy services involving the provision of drug therapy management and other services not required under state and federal law but that may be rendered in connection with dispensing, or that may be used in disease prevention or disease management.

~~((45))~~ (47) "Telemedicine" means the delivery of health care services through the use of interactive audio and video technology or audio-only technology, permitting real-time communication between the patient at the originating site and the provider, for the purpose of diagnosis, consultation, or treatment. For purposes of this chapter, "telemedicine" does not include facsimile, email, or text messaging, unless the use of text-like messaging is necessary to ensure effective communication with individuals who have a hearing, speech, or other disability.

[Statutory Authority: RCW 48.02.060 and 48.43.735. WSR 22-22-104 (Matter R 2022-03), § 284-170-130, filed 11/2/22, effective 12/3/22. Statutory Authority: RCW 48.43.735(9). WSR 21-24-029, § 284-170-130, filed 11/22/21, effective 12/23/21. Statutory Authority: RCW 48.02.060 and 48.43.765. WSR 21-01-094 (Matter No. R 2019-05), § 284-170-130, filed 12/11/20, effective 1/11/21. Statutory Authority: RCW 48.02.060. WSR 16-07-144 (Matter No. R 2016-01), § 284-170-130, filed 3/23/16, effective 4/23/16.]

OTS-4940.1

AMENDATORY SECTION (Amending WSR 21-02-034, filed 12/29/20, effective 1/1/22)

WAC 284-180-460 Health care benefit manager filings. (1) A health care benefit manager must file all contracts and contract amendments between the health care benefit manager and a health carrier, provider, pharmacy, pharmacy services administration organization, or other health care benefit manager entered into directly or indirectly in support of a contract with a carrier or employee benefits program within ~~((thirty))~~ 30 days following the effective date of the contract or contract amendment. If a health care benefit manager negotiates, amends, or modifies a contract or a compensation agreement that deviates from a filed agreement, then the health care benefit

manager must file that negotiated, amended, or modified contract or agreement with the commissioner within (~~thirty~~) 30 days following the effective date. The commissioner must receive the filings electronically in accordance with this chapter.

(2) Contracts or contract amendments that were executed prior to July 23, 2023, and remain in force, must be filed with the commissioner no later than 60 days following July 23, 2023.

(3) Health care benefit managers must maintain health care benefit management contracts at its principal place of business in the state, or the health care benefit manager must have access to all contracts and provide copies to facilitate regulatory review upon (~~twenty~~) 20 days prior written notice from the commissioner.

(~~(3)~~) (4) Health care benefit manager contracts and compensation agreements must clearly set forth provider network names and applicable compensation agreements associated with those networks so that the provider or facility can understand their participation as an in-network provider and the reimbursement to be paid. The format of such contracts and agreements may include a list or other format acceptable to the commissioner so that a reasonable person will understand and be able to identify their participation and the reimbursement to be paid as a contracted provider in each provider network.

[Statutory Authority: RCW 48.02.060 and 48.200.900. WSR 21-02-034, § 284-180-460, filed 12/29/20, effective 1/1/22.]

WSR 23-21-104

PROPOSED RULES

DEPARTMENT OF COMMERCE

[Filed October 18, 2023, 10:25 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 22-23-136.

Title of Rule and Other Identifying Information: Amending and establishing new sections in chapter 194-50 WAC to implement 2022 legislation (SSB 5722, chapter 177, Laws of 2022) directing the department of commerce (commerce) to adopt a state energy management and benchmarking requirement for "tier 2 covered buildings" as authorized in RCW 19.27A.250 and 19.27A.210.

Hearing Location(s): On November 21, 2023, at 10:00 a.m., virtual only. Please check the commerce building's web page in case of any changes in meeting information <https://www.commerce.wa.gov/growing-the-economy/energy/buildings/>.

Date of Intended Adoption: December 19, 2023.

Submit Written Comments to: Nick Manning, P.O. Box 42525, Olympia, WA 98504, email buildings@commerce.wa.gov, by November 21, 2023.

Assistance for Persons with Disabilities: Contact Nick Manning, phone 564-200-4324, email buildings@commerce.wa.gov, by November 21, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: Implementation of 2022 legislation (SSB 5722, chapter 177, Laws of 2022) concerning energy management and benchmarking in buildings requires the state to adopt an energy management and benchmarking requirement for a new category of buildings ("Tier 2" buildings include buildings where the sum of multifamily residential, nonresidential, hotel, motel, and dormitory floor areas exceeds 20,000 gross square feet, but does not exceed 50,000 gross square feet, excluding the parking garage area. Tier 2 covered buildings also include multifamily residential buildings where floor areas are equal to or exceed 50,000 gross square feet, excluding the parking garage area). Requirements will relate to energy management planning, operations and maintenance planning, and energy use analysis through benchmarking and associated reporting and administrative procedures (including exemptions for financial hardship and an appeals process for administrative determinations, including penalties imposed by the department). Owners of covered commercial buildings will be required to comply with the standard, which represents a cost-effective strategy to reduce greenhouse gas emissions from the building sector.

Reasons Supporting Proposal: SSB 5722 (chapter 177, Laws of 2022) concerning energy management and benchmarking in buildings took effect July 9, 2022, and requires the state to adopt an energy management and benchmarking requirement for a new category of buildings ("Tier 2" buildings include buildings where the sum of multifamily residential, nonresidential, hotel, motel, and dormitory floor areas exceeds 20,000 gross square feet, but does not exceed 50,000 gross square feet, excluding the parking garage area. Tier 2 covered buildings also include multifamily residential buildings where floor areas are equal to or exceed 50,000 gross square feet, excluding the parking garage area). These rules set forth benchmarking, operations and maintenance, and energy management planning procedures for buildings beginning in 2027. These activities will help buildings reduce greenhouse gas emissions, lower energy consumption, and avoid energy costs, and provides a tech-

nology-neutral, building-specific approach to greenhouse gas emissions reductions with a long-term planning horizon.

Statutory Authority for Adoption: RCW 19.27A.210, 19.27A.250.

Statute Being Implemented: RCW 19.27A.210, 19.27A.250.

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

Name of Proponent: Washington state department of commerce, governmental.

Name of Agency Personnel Responsible for Drafting: Liz Reichart, 1011 Plum Street S.E., P.O. Box 42525, Olympia, WA 98504-2525, 360-515-8194.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is not required under RCW 34.05.328. Commerce is not a listed agency in RCW 34.05.328.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rule content is explicitly and specifically dictated by statute.

Scope of exemption for rule proposal:

Is not exempt.

The proposed rule does impose more-than-minor costs on businesses.

Small Business Economic Impact Statement (SBEIS)

SSB 5722 (Laws of 2022) requires that commerce conduct an SBEIS in conjunction with this rule making. Commerce contracted the SBEIS through a public procurement process. It can be requested at buildings@commerce.wa.gov, or accessed at <https://deptofcommerce.app.box.com/file/1336105815652?s=fas1txste7rrztmiyrrzdj8md7ablyhe>.

In response to recommendations in this statement, commerce will take the following actions to lower the cost of compliance for small businesses:

1. Information: Commerce will add to its library of resources and information on the agency website. The agency has added and will continue to add staff dedicated to providing technical assistance for building owners.

2. Providing Templates for Energy Management Plans (EMPs) and Operations and Maintenance (O&M) Programs: To streamline the process for small business owners, commerce will develop and provide standardized templates for EMPs and O&M programs. These templates will offer a structured framework and guidance for businesses to create their customized plans and programs, tailored to their specific building types and operational needs.

3. Streamlined Compliance Processes: Commerce will create clear and concise guidelines, provide easy-to-use templates, and develop user-friendly online platforms for reporting and compliance documentation.

4. Technical Assistance and Guidance: Commerce will offer comprehensive technical assistance and guidance to small businesses can [to] help them navigate the compliance requirements more efficiently. This will include providing access to expert advice, resources, and training programs that assist businesses in understanding energy management, benchmarking, and maintenance best practices.

5. Collaborative Partnerships: Commerce is fostering partnerships with industry associations, nonprofit organizations, and energy effi-

ciency service providers to create cost-sharing opportunities, which will help pool resources, share knowledge, and provide economies of scale that reduce the overall cost of compliance for small businesses.

6. Sharing Best Practices and Case Studies: Highlighting success stories and best practices from small businesses that have effectively implemented energy efficiency measures can serve as valuable learning opportunities. Commerce is developing a series of publicly available case studies in order to provide insights, inspiration, and practical guidance to other small businesses.

A copy of the statement may be obtained by contacting Anneka McDonald, Washington State Department of Commerce, 1011 Plum Street S.E., Olympia, WA 98501, phone 360-584-6905, email buildings@commerce.wa.gov.

October 18, 2023
Amanda Hathaway
Rules Coordinator

OTS-5011.1

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-001 Foreword. *ANSI/ASHRAE/IES Standard 100-2018 Energy Efficiency in Existing Buildings* is hereby adopted by reference with the exceptions noted in this chapter of the Washington Administrative Code (WAC). In the event of a conflict between the standard and rules in this chapter, the provisions of this chapter apply.

ANSI/ASHRAE/IES Standard 100-2018 Energy Efficiency in Existing Buildings is adopted by the Washington state department of commerce pursuant to RCW 19.27A.200, 19.27A.210, and 19.27A.220. This standard has been adopted by reference and modified to implement the requirements for *covered ((commercial)) buildings* as directed by the Washington state legislature. The legislature delegated the responsibility of adoption and amendment of this standard to the Washington state department of commerce.

Complying with this rule requires the user to comply with *ANSI/ASHRAE/IES Standard 100-2018* as amended by this rule. When this rule amends a section of *Standard 100*, the entire section is published in the rule. The user will need to have both documents in hand, but detailed comparison within any one section is not necessary. Simply apply the entire section as published in the rule. All other sections in *Standard 100* apply.

The Washington state administrative requirements for this standard are included in Normative Annex Z. For *building owners* that must comply with this standard, reading Normative Annex Z first allows the owner to put the rest of the standard in context. Multiple compliance options are available and should be reviewed prior to beginning implementation of this standard.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-001, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-020 ASHRAE Standard 100, 2018—Section 2—Scope. This standard is mandatory for all covered (~~commercial~~) buildings located in the state of Washington. (~~This standard is also applied as a voluntary standard for applicable multifamily residential buildings seeking~~) Multifamily residential buildings exceeding 50,000 square feet of gross floor area, excluding the parking garage areas, may seek early adopter incentives by voluntarily complying with the applicable energy use intensity target consistent with RCW 19.27A.220.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-020, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-030 ASHRAE Standard 100, 2018—Section 3—Definitions.

3.1 General

Agricultural structure: A structure designed and constructed to house farm implements, hay, grain, poultry, livestock, or other horticultural products, and is not a place used by the public or a place of human habitation or employment where agricultural products are processed, treated, or packaged.

Applicable building codes: The Washington state building codes as adopted by the Washington state building code council, and as modified by local government amendments.

Authority having jurisdiction (AHJ): Washington state department of commerce.

Benchmarking: The practice of comparing the measured performance of a device, process, facility, or organization to itself, its peers, or established norms, with the goal of informing and motivating performance improvement. When applied to building energy use, benchmarking serves as a mechanism to measure energy performance over time, relative to other similar buildings.

Building owner: An individual or entity possessing title to a building. In the event of a land lease, the building owner is the entity possessing title to the building on leased land. Where condominium structures are subject to the standard, "building owner" means the owners' association, except that where the powers of an owners' association are exercised by or delegated to a master association, "building owner" means the master association.

Building tenant: A person or entity occupying or holding possession of a building or premises pursuant to a rental agreement.

Campus: A campus is a collection of buildings served by a campus district heating, cooling, water reuse and/or power system owned by the same building owner.

Campus district heating and/or cooling system: A district heating and/or cooling system that serves a campus and is owned by the *building owner*.

Certified commissioning professional: A person who is certified by an ANSI/ISO/IEC 17024:2012 accredited organization to lead, plan, coordinate, and manage commissioning teams and implement the commissioning process and with experience commissioning at least two projects of similar size and of similar equipment to the current project, and at least one in the last three years. This experience includes the writing and execution of verification checks and functional test plans.

Complex: A group of *buildings* interconnected by *conditioned spaces* on *contiguous property*.

Conditional compliance: A temporary compliance method:

(a) For Tier 1 covered buildings used by building owners that demonstrates the owner has implemented energy use reduction strategies required by the standard, but has not demonstrated full compliance with the energy use intensity target.

(b) For Tier 2 covered buildings used by building owners that demonstrates the owner has benchmarked the building energy use in accordance with the standard, and provides an additional 180 days for building owner to demonstrate full compliance with the energy management plan (EMP) and operations and maintenance (O&M) program documentation.

Conditioned space: An area, room or space that is enclosed within the *building's* thermal envelope and is directly heated or cooled or is indirectly heated or cooled. Spaces are indirectly heated or cooled where they communicate through openings with *conditioned spaces*, where they are separated from *conditioned spaces* by uninsulated walls, floors or ceilings, or where they contain uninsulated ducts, piping or other sources of heating or cooling. (also see, *semi-heated space*).

Connected buildings: A collection of buildings with shared energy meter(s) on contiguous property.

Contiguous property: Adjoining property under sole ownership.

Covered ((commercial)) building: ((A building where the sum of nonresidential, hotel, motel, and dormitory floor areas exceeds fifty thousand gross square feet, excluding the parking garage area.)) Includes Tier 1 covered buildings and Tier 2 covered buildings.

Director: The director of the department of commerce or the director's designee.

Discounted payback: The time when the accumulated savings achieved by an investment, discounted by the appropriate discount rate, equals the initial cost of the investment.

District heating and/or cooling system: ((~~Is~~)) A system that provides heating or cooling to multiple buildings through a distributed system providing steam, hot water, or cool water to buildings.

Energy target (EUI_T): Not adopted. See energy use intensity target (EUI_T).

Energy use intensity (EUI): A measurement that normalizes a *building's* site energy use relative to its size. A *building's* energy use intensity is calculated by dividing the total net energy consumed in one year

by the gross floor area of the *building*, excluding the parking garage. "Energy use intensity" is reported as a value of a thousand British thermal units per square foot per year.

~~((Energy target (EUI_t): Not adopted.))~~

Energy use intensity target (EUI_t): The target for net energy use intensity of a covered ((commercial)) building ((that has been established for the purposes of complying with the standard)).

Gross floor area: The total number of square feet measured between the exterior surfaces of the enclosing fixed walls of a *building*, including all supporting functions such as offices, lobbies, restrooms, equipment, storage areas, mechanical rooms, break rooms, ~~((crawl spaces))~~ and elevator shafts. *Gross floor area* does not include outside bays or docks.

Gross floor area for residential buildings: Not adopted.

Gross floor area for nonresidential buildings: Not adopted.

Lighting schedule: A list that provides a count of all luminaires in the building, lighting controls, fixture types, and product information.

More recently built buildings: *Buildings* or additions greater than ~~((fifty thousand))~~ 50,000 square feet in conditioned floor area permitted for construction based on the application permit date of July 1, 2016, or later. For example, *buildings* permitted to the 2015 edition of the Washington State Building Code, chapter 51-50 WAC.

Multifamily residential building: A covered multifamily building containing sleeping units or more than five dwelling units where occupants are primarily permanent in nature.

Net energy use: The sum of the metered and bulk fuel energy entering the building, minus the sum of metered energy leaving the building or campus. Renewable energy produced on a campus that is not attached to a covered building may be included. The same applies to portions of buildings with submetering. Bulk fuels are included using the equation in Section 5.2.2.1.

Physical occupancy: Space that is used by an owner or tenant regardless of occupant density and frequency of use. A building does not have physical occupancy and is considered unoccupied when 50 percent or more of the conditioned floor area is not leased or is otherwise vacant.

Qualified commissioning authority: Not adopted.

Qualified energy auditor: A person acting as the auditor of record having training, expertise and three years professional experience in building energy auditing and any one of the following:

- ~~(a) A licensed professional architect or engineer((-~~
- ~~(b) An energy auditor/assessor/analyst certified by ASHRAE or the Association of Energy Engineers (AEE) for all building types.))~~;
- (b) A building energy assessment professional (BEAP) certified by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE);
- (c) A certified energy auditor (CEA) certified by the Association of Energy Engineers (AEE).

Qualified energy manager (QEM): An individual designated by the building owner who:

- (a) Has two years of experience, including educational and/or professional experience, with commercial building operations and/or building energy management in addition to successful completion of clean buildings tier 2 training program as specified by the AHJ; or
- (b) Meets the definition of a qualified person.

Qualified person: A person having training, expertise and three years professional experience in building energy-use analysis and any of the following:

- (a) A licensed professional architect or engineer in the ((jurisdiction where the project is located)) state of Washington;
- (b) A person with Building Operator Certification (BOC) Level II by the Northwest Energy Efficiency Council (NEEC);
- (c) A ((eertified)) building commissioning professional certified by an ANSI/ISO/IEC 17024:2012 accredited organization;
- (d) A qualified energy auditor;
- (e) A certified energy manager (CEM) in current standing, certified by the Association of Energy Engineers (AEE);
- (f) An energy management professional (EMP) certified by the Energy Management Association (EMA);
- (g) A person with South Seattle College Sustainable Building Science Technology Bachelor of Applied Science degree;
- (h) A person with a qualified credential through the Better Buildings Workforce Challenge or as recognized in Department of Energy programs.

The AHJ is authorized to prescribe additional certifications and training to meet the minimum qualifications of a qualified person.

Recommissioning: An application of the commission process requirements to a project that has been delivered using the commissioning process.

Residential building: Not adopted.

Savings-to-investment ratio: The ratio of the total present value savings to the total present value costs of a bundle of an energy or water conservation measure estimated over the projected *useful life* of each measure. The numerator of the ratio is the present value of net savings in energy or water and nonfuel or nonwater operation and maintenance costs attributable to the proposed energy or water conservation measure. The denominator of the ratio is the present value of the net increase in investment and replacement costs less salvage value attributable to the proposed energy or water conservation measure.

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:

- (a) Is heated but not cooled, and has ((a maximum)) an installed heating system output capacity ((of)) greater than or equal to 3.4 Btu/(h-ft²) but not greater than 8 Btu/(h-ft²);
- (b) Is not a walk-in ((of)) cooler, walk-in freezer, refrigerated warehouse cooler or refrigerated warehouse freezer space.

Service life: See *useful life*.

Simple payback (years): The estimated initial cost of an EEM divided by the estimated annual cost savings of the measure expressed in

years. The cost savings may include energy cost savings and incremental routine operations and maintenance costs or savings.

State equipment standards: Appliance and equipment standards listed in chapter 19.260 RCW, Energy efficiency.

Tier 1 covered building: A building where the sum of nonresidential, hotel, motel, and dormitory floor areas exceeds 50,000 gross square feet, excluding the parking garage area.

Tier 2 covered building: A building where the sum of multifamily residential, nonresidential, hotel, motel, and dormitory floor areas exceeds 20,000 gross square feet, but does not exceed 50,000 gross square feet, excluding the parking garage area. Tier 2 covered buildings also include multifamily residential buildings where floor areas are equal to or exceed 50,000 gross square feet, excluding the parking garage area.

Useful life: Useful life is the expected remaining service life of building systems or equipment. Used interchangeably with service life.

Weather normalized: A method for modifying the measured building energy use in a specific weather year to energy use under normal weather conditions.

Weather normalized energy ((~~utilization index~~)) use intensity (WNEUI): Measurement that normalizes a building's site energy use relative to its size based on the buildings weather normalized site energy use. A building's energy use intensity is calculated by dividing the total net weather normalized energy consumed in one year by the gross floor area of the building, excluding the parking garage. Weather normalized energy use intensity is reported as a value of ((a thousand)) 1,000 British thermal units per square foot per year.

3.2 Common abbreviations and acronyms

AEE Association of Energy Engineers.

AHJ authority having jurisdiction.

DDC direct digital control.

EEM energy efficiency measure.

EM energy manager.

EMP energy management plan.

EUI ((~~energy use~~)) energy use intensity.

IRR internal rate of return.

LCCA life cycle cost analysis.

O&M operations and maintenance.

WSEC Washington State Energy Code.

WNEUI Weather normalized energy ((~~utilization index~~)) use intensity.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-030, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-040 ASHRAE Standard 100, 2018—Section 4—Compliance requirements.

4.1.1.1 A *building or complex of buildings* whose majority of gross floor area has activities in Table 7-1 shall comply with the requirements of Sections 4.2 and 4.3.

4.1.1.2

• For Tier 1 covered buildings the qualified person determining compliance shall:

1. Determine whether or not the *building* seeking compliance has an *energy use intensity target (EUI_T)* according to Section 7;
2. Establish the *energy use intensity target (EUI_T)* according to Section 7; and

3. Submit forms as specified in Normative Annex Z to the AHJ.

• For Tier 2 covered buildings the qualified energy manager submitting compliance documents shall:

1. Determine whether or not the *building* seeking compliance has an *energy use intensity target (EUI_T)* according to Section 7;

2. Establish the *energy use intensity target (EUI_T)* according to Section 7; and

3. Submit forms as specified in Normative Annex Y to the AHJ.

4.1.2 Residential building (~~(-- Not adopted)~~).

4.1.2.1 A multifamily residential building or complex of multifamily residential buildings shall comply with the requirements of Sections 4.2 and 4.3.

4.1.2.2 For Tier 2 covered buildings the qualified energy manager submitting compliance documents shall:

1. Determine whether or not the *building* seeking compliance has an *energy use intensity target (EUI_T)* according to Section 7;

2. Establish the *energy use intensity target (EUI_T)* according to Section 7; and

3. Submit forms as specified in Normative Annex Y to the AHJ.

4.1.3 Buildings with residential and nonresidential activities - Not adopted.

4.2.1 Operations and maintenance. The building manager shall comply with the operations and maintenance (O&M) requirements of Section 6.

• For Tier 1 covered buildings the qualified person determining compliance shall state in writing on Form A that the operating and maintenance requirements of Section 6 have been met according to the following subsections.

• For Tier 2 covered buildings the qualified energy manager submitting compliance documents shall state in writing on Form A that the operating and maintenance requirements of Section 6 have been met according to the following subsections.

4.2.1.1 For first-time applicants.

• Tier 1 covered buildings, for the previous year.

• Tier 2 covered buildings, by the compliance date.

4.2.2 Energy management plan. The building manager shall comply with the energy management requirements of Section 5.

• For Tier 1 covered buildings the qualified person determining compliance shall state in writing on Form A that the energy management program described in Section 5 has been developed and is being maintained as of the date on Form A.

• For Tier 2 covered buildings the qualified energy manager submitting compliance documents shall state in writing on Form A that the energy management program described in Section 5 has been developed and is being maintained as of the date on Form A.

4.3.1 Measured EUI.

• For Tier 1 covered buildings the qualified person shall calculate the building's measured energy use intensity (EUI) by completing Form C according to Section 5.2.

• For Tier 2 covered buildings the qualified energy manager submitting compliance documents shall calculate the building's measured energy use intensity (EUI) by completing Form C according to Section 5.2.

4.3.2 Buildings with energy targets. *Covered buildings* with energy targets must meet all the criteria for developing an energy target in Section 7.2 Determining energy use intensity target (EUI_t) and provide energy use data as specified by Section 5.2 Building energy monitoring. All other *buildings* shall comply with Section 4.3.3, Buildings without energy targets. Tier 2 covered buildings are not required to meet the target as they are exempt from Sections 4.3.2.1 through 4.3.2.3.

4.3.2.1 Building meets the energy target (EUI_t). If the Tier 1 covered building's measured weather normalized energy use intensity (WNEUI) is less than or equal to its energy target (EUI_t), the building complies.

4.3.2.2 Tier 1 covered building does not meet the energy use intensity target (EUI_t). A qualified energy auditor shall complete an energy audit according to Section 8, and EEMs that will reduce energy use to meet the energy target shall be implemented according to Section 9. Upon completion of the implementation of all required EEMs, a building shall be granted conditional compliance.

Exceptions to 4.3.2.2:

1. *More recently built buildings:* For buildings that exceed the target developed in accordance with Section 7.2.1.1, but do not exceed the target developed in accordance with Section 7.2.1, the owner may demonstrate compliance by recommissioning the building using the existing-building commissioning process. The commissioning process consists of the following:

a. A certified commissioning professional shall implement the building commissioning process specified by the most recent edition of the Washington state energy code. The energy code commissioning process shall be modified by the certified commissioning professional for recommissioning purposes as described in ASHRAE Guideline 0.2-2015 Commissioning Process for Existing Systems and Assemblies and ASHRAE Guideline 1.2-2019 Technical Requirements for the Commissioning Process for Existing HVAC&R Systems and Assemblies.

b. Washington state energy code (WSEC) exceptions based on mechanical system or service water heating capacity shall not be applied when developing the scope for commissioning. For example, the 2018 WSEC, Section C408.1 General, the exceptions do not apply.

c. All deficiencies found during the commissioning process shall be resolved including corrections and retesting prior to submitting documentation for compliance or conditional compliance.

d. *Building owners* may omit capital expenditures identified by the commissioning process that are not cost-effective, as documented using the procedures in Normative Annex X.

2. No individual requirement need be met that would compromise the historical integrity of a *building* or part of a *building* designated by a government body for long-term preservation in its existing state, such as historical monuments. *EEMs* that can be implemented without modifying historical parts of the *building* shall be implemented as required by this standard. Documentation of historic significance must be provided to the AHJ by submitting Form G in accordance with Normative Annex Z.

4.3.2.3 Verification of compliance. Within (~~(fifteen)~~) 15 months after the completion of Section 4.3.2.2, the *weather normalized ((EUI)) energy use intensity (WNEUI)* shall be recalculated by the *energy manager (EM)* from (~~(twelve)~~) 12 consecutive months of measured energy use, and Form A shall be resubmitted to the AHJ. If the *building's* post-implementation measured *EUI* is less than or equal to the *energy target (EUI_t)*, the *building* complies with the standard. If the *building's* post-implementation measured *EUI* is greater than the *energy target (EUI_t)*, the *building* does not comply with the standard and the *conditional compliance* is suspended until either:

a. Additional *EEMs* have been implemented that reduce the subsequently measured *EUI* to below the *energy target (EUI_t)* and a new Form A is submitted to the AHJ; or

b. The AHJ revokes *conditional compliance*.

4.3.3 Buildings without energy targets.

Exception to 4.3.3: Tier 2 covered buildings.

4.3.3.2 Implement EEMs. The entire *optimized bundle of EEMs* identified shall be implemented. Upon completion of the implementation of the *optimized bundle of EEMs* and the *energy management plan, including the operations and maintenance program, is in place as directed by Section Z4.5, a building shall be granted conditional compliance in accordance with Section 9.1.1.2.*

Exception to 4.3.3.2: No individual requirement need be met that would compromise the historical integrity of a *building* or part of a *building* designated by a government body for long-term preservation in its existing state, such as historical monuments. Documentation of historic significance must be provided to the AHJ by submitting Form G in accordance with Normative Annex Z.

4.3.3.3 Verification of compliance for buildings with building energy monitoring in compliance with Section 5.2. If the *building* complies with Section 4.2, then within (~~(fifteen)~~) 15 months following the completion of implementation of the *optimized bundle of EEMs, building owners* with conditional compliance or the *qualified person* representing the *building owner* shall submit verification that measured post-implementation energy savings meet or exceed 75(~~(%)~~) percent of the energy savings projected in the energy audit report to the AHJ. Energy savings shall be compared at the whole-*building* consumption level in common units for electricity, fossil fuels, and other sources. If the measured post-implementation energy savings of the package of *EEMs* do not meet or exceed 75(~~(%)~~) percent of the energy savings projected in the energy audit, the *conditional compliance* is suspended until (~~(either)~~) one of the following:

a. Additional cost-effective EEMs are implemented that reduce the subsequently measured energy savings of the package of *EEMs* so that it meets or exceeds 75((%)) percent of the energy savings projected in the energy audit; or

b. Verification of energy savings using the methods of the *International Performance Measurement & Verification Protocol, Concepts and Options for Determining Energy and Water Savings Volume I, Options A through D*. If the measurement and verification protocol identified any outstanding performance issues, they shall be corrected and the verification protocol shall be repeated to ensure optimal performance; or

c. The *AHJ* revokes conditional compliance.

4.3.3.4 Verification of compliance for buildings without building energy monitoring in compliance with Section 5.2. Verification of energy savings using the methods of the *International Performance Measurement & Verification Protocol, Concepts and Options for Determining Energy and Water Savings Volume I options A through D*. If the measurement and verification protocol identified any outstanding performance issues, they shall be corrected and the verification protocol shall be repeated to assure savings estimated in the original audit are realized.

4.4.1 Administrative requirements. *Building owners* shall demonstrate compliance with the standard by following the administrative requirements in Normative Annex Z for Tier 1 covered buildings or Normative Annex Y for Tier 2 covered buildings, including:

- Z2/Y2 "*Building owner response to notifications.*"
- Z3/Y3 "*Washington state reporting requirements for building owners.*"
(~~(Z3 General compliance.)~~)
- Z4/Y4 "*Documentation of compliance with the standard.*"
- Z5/Y5 "*Violations, assessment of administrative penalties, mitigation and review of penalty decisions.*"
- Z6/Y6 "*Compliance forms.*"
- Z7/Y7 "*Section 7 tables as modified by Washington state.*"

4.4.2 Alternative energy targets (EUI_t) - Not adopted.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-040, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-050 ASHRAE Standard 100, 2018—Section 5—Energy management plan.

Exception to 5.1.1 - Not adopted.

5.1.2.1 Energy accounting in accordance with Section 5.2.

5.1.2.2 In the initial year of compliance, the *building's weather normalized energy use intensity (WNEUI)* and *energy-use intensity (EUI)*.

5.1.2.3 Annual updates of the *net energy use, WNEUI* and *EUI*.

5.1.2.4 Annual comparison of the net *WNEUI* and *EUI* to the energy target.

5.1.2.5 Documentation of original, current, and changes in number of occupants, weekly operating hours, or time of day scheduled for occupancy, production rates, and energy using equipment that would have caused change in the measured *WNEUI* and *EUI*.

Exceptions to 5.1.2.12:

1. Buildings that meet the *EUI_t*.
2. Buildings that have implemented a utility program lighting upgrade covering 75 percent of the building's GFA, within the previous five years, can use the lighting schedule provided by the utility program.
3. Tier 2 covered buildings.

5.1.2.13 The current lighting satisfaction survey and lighting checklist as described in Appendix D of *Performance Measurement Protocols for Commercial Buildings*¹ or as approved by the AHJ.

Exceptions to 5.1.2.13:

1. Buildings that meet the *EUI_t*.
2. Buildings that have implemented a utility program lighting upgrade covering 75 percent of the building's GFA through a utility program within the previous five years.
3. Tier 2 covered buildings.

5.1.2.14 Operations and Maintenance Plan including:

1. An operations and maintenance (O&M) program as defined in Section 6.
2. An O&M implementation plan as specified in Normative Annex L.
3. Implementation documentation as specified in L2.2.5 Documentation.

5.1.3 The EM shall provide access to the energy management plan to the building occupants annually.

5.2.1 Provide measured net energy consumption data for each covered building, including all forms of imported and exported energy from at least 12 consecutive months of data monitored in a period not to exceed two years prior to the efficiency audit. The net energy concept is illustrated in Figure 5-1 and Table 5-1 and is calculated in accordance with Section 5.2.4 as follows:

$$\text{Net energy use} = (1a + 1b + 1c + 1d) - (3a + 3b + 3c + 3d + 3e)$$

Where 1a, 1b, 1c, and 1d are metered energy supplies that are used in the building (this includes bulk energy sources), and 3a, 3b, 3c, 3d, and 3e are metered energy excesses that are supplied to another building or grid as useful energy.

5.2.1.1 Connected buildings. Where energy consumption is not monitored at the covered building level:

1. Tier 1 covered buildings: Net energy consumption data may be provided at the connected building level.
2. Tier 2 covered buildings: Net energy consumption data shall be provided at the connected building level.

5.2.1.2 End use deductions. Where submetered from a building's meter, the following end use energy consumption may be deducted from the building's measured net energy use:

1. Electric vehicle charging equipment that transfers electricity to batteries or other energy storage devices in electric vehicles.

2. Electric loads related to broadcast antennas, on-site cell phone towers or other communications equipment that is unrelated to the primary purpose of the building.

3. The AHJ may add additional end use deductions based on technological advancements.

5.2.2 Energy-use data for each type of energy imported into and exported from the *building* shall be collected from utility or energy delivery bills (that must include the quantity of energy or fuel delivered) or by monitoring local energy meters (either utility or owner-provided meters). Owner-provided energy meters shall meet the metering accuracy, tolerances and testing requirements of Title 480 WAC or WAC 51-11C-40904 (Section C409.4 of the *WSEC*).

5.2.3 Energy conversion factors. The *site energy* content of different forms of purchased energy shall be converted from the purchased unit to the standard *site energy* unit using the conversion factors incorporated in Energy Star portfolio manager.

5.2.4 The *energy accounting system* shall be Energy Star Portfolio Manager as specified in Normative Annex Z.

5.2.4.1 - Not adopted.

5.2.4.2 - Not adopted.

5.2.4.3 - Not adopted.

Table 5-2a Site Energy Conversion Factors - Table not adopted.

Table 5-2b Primary Energy Conversion Factors - Table not adopted.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-050, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-060 ASHRAE Standard 100, 2018—Section 6—(~~Maintenance and operation~~) Operations and maintenance requirements.

6.3 Operation and maintenance (O&M) Implementation. The *O&M* program shall be implemented in accordance with Normative Annex L.

Exception to 6.3: *O&M* programs developed and implemented by the *building's* serving utility or local government and approved as equivalent or more stringent by the *AHJ* may be used as an alternative to the requirement in Section 6.3. Where local government programs are more stringent than applicable utility programs, local government programs shall be selected over utility programs.

6.6.1 When HVAC, domestic hot-water heating, or refrigeration equipment or appliances are replaced, the replacement equipment shall meet (~~the most stringent~~) all applicable energy efficiency requirements in the federal equipment standards, *state equipment standards*, and the applicable building code.

Exception to 6.6.1 - Not adopted.

6.6.2.1 When lighting equipment is replaced, the replacement equipment shall meet (~~the most stringent~~) all applicable energy efficiency re-

quirements in the federal equipment standards, *state equipment standards* and in the applicable building code. Implementation of more efficient equipment shall be evaluated and included as specified for the *capital management plan*, Section 5.1.2.10.

Exception to 6.6.2.2: The existing installed lighting power may proportionally increase when the current light levels are below those recommended in the IES *Lighting Handbook 4* or latest version of the Washington State Energy Code.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-060, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-070 ASHRAE Standard 100, 2018—Section 7—Energy-use analysis and target requirements.

7.1.1 Building activity type and energy targets.

7.1.1 Building activity type. *Buildings* are divided into activity types (~~or activities~~) as shown in Table 7-1 Normative Annex Z. Building (~~type definitions are based on Energy Star portfolio manager, unless modified by the notes to Table 7-1~~) activity types are defined by the AHJ in Table 7-4.

7.1.2 Energy targets (~~(—)~~). Energy targets for each building activity type are listed in Table 7.2a, Normative Annex Z.

7.1.3 Building operating shifts normalization factors (~~(—)~~). *Building operating shifts normalization factors* for each building activity type are listed in Table 7-3, Normative Annex Z.

7.2.1 For Tier 1 covered buildings the qualified person or for Tier 2 covered building the qualified energy manager shall determine the energy use intensity target (EUI_t) according to Section 7.2.2 for single-type/activity buildings and Section 7.2.3 for mixed-use buildings, and shall complete Form B.

Note: Covered buildings pursuing compliance at the connected building level shall determine the EUI_t at the connected building level.

Exceptions to 7.2.1:

1. Tier 2 covered buildings unable to develop EUI_t in accordance with Section 7.2.2 or 7.2.3 of this standard shall report Energy Star portfolio manager median site EUI .

2. EUI_t programs developed and implemented by the building's local government and approved as equivalent or more stringent by the AHJ may be used as an alternative to the requirement in Section 7.2.1.

7.2.1.1 Additional target for more recently built buildings: In addition to the requirements of section 7.2.1, *more recently built buildings* shall create a second EUI_t that is 15(%) percent less than the target developed for compliance with section 7.2.1. This shall be the *building EUI_t* and shall be included on Form B.

7.2.2 Energy targets for *buildings* with a single activity shall be calculated as follows:

$$(EUI_t) = S \times (EUI_{t1})$$

where (EUI_{t1}) is the *building activity energy target* value in Table 7-2a for the appropriate *building activities/types* and climate, and S is the *building operating shifts normalization factor* in Table 7-3.

7.2.3 Energy targets for buildings with multiple activities shall be determined using weighted averages of building activity energy target for each area with a single activity, per the following equation, and reported on Normative Annex C Form B:

$$EUI_t = (A \times S \times EUI_{t1})_1 + (A \times S \times EUI_{t1})_2 + \dots + (A \times S \times EUI_{t1})_i + \dots + (A \times S \times EUI_{t1})_n$$

Where:

- $(A)_i$ = percentage of the gross floor area with single building activity i
- $(EUI_{t1})_i$ = building activity target from Table 7-2a for space i
- $(S)_i$ = operating shifts normalization factor from Table 7-3 for space i
- $(A \times S \times EUI_{t1})_i$ = the weighted space EUI target for space i

Exceptions to 7.2.3: The *energy use intensity target* (EUI_t) of a *building* may be modified using the following exceptions. None of these exceptions may be used to change the total *gross floor area* as it applies to Normative Annex Z, Z3.1 Compliance schedule.

1. Spaces where more than 75((%)) percent of the *gross floor area* has a single *building activity* listed in Table 7-1 shall be reported as a single-use *building* or as a multiuse *building* in accordance with either Section 7.2.2 or Section 7.2.3.

2. Spaces less than 10((%)) percent of the *gross floor area* with *building activity* listed in Table 7-1 can combine their floor area with the floor area within the *building* that has a similar *building activity* and similar EUI_t as determined by the *qualified person*.

3. Spaces in *buildings* with multiple activities that are not listed in Table 7-1 and have a total combined area $\Sigma A_{nontarget}$ comprising less than 10((%)) percent of the *building gross floor area* A_{gross} can be excluded from *building energy target* calculations if the energy use of such space is metered separately and the nontarget spaces comply with Sections 4.1 and 4.2. The *energy target* for the remaining part of the *building* shall be calculated after deducting the unlisted *building type floor area* from the *building gross floor area* $(A_{gross} - \Sigma A_{nontarget})$. Nontarget spaces shall be limited to the floor area occupied by the nontarget activity and shall not include supporting spaces such as corridors, common areas or other space types listed in Table 7-1.

4. Spaces in *buildings* with multiple activities that are not listed in Table 7-1 and have a total combined area $\Sigma A_{nontarget}$ comprising less than 50((%)) percent of the *building gross floor area* A_{gross} can be excluded from *building energy target* calculations if the energy use of such space is metered separately and the nontarget spaces comply with Sections 4.1, 4.2, 4.3.1, and 4.3.3. The *energy target* for the remaining part of the *building* shall be calculated after deducting the unlisted *building type floor area* from the *building gross floor area* $(A_{gross} - \Sigma A_{nontarget})$. Nontarget spaces shall be limited to the floor area occupied by the nontarget activity and shall not include supporting spaces such as corridors, common areas or other activity types listed in Table 7-1.

7.2.4 Energy targets for vacant and partially vacant buildings.**Exception to ((Section)) 7.2.4 Vacant and partially vacant buildings:**

If the *building* did not have *physical occupancy* by owner or tenant for at least ((fifty)) 50 percent of the conditioned floor area throughout the consecutive ((twelve)) 12-month period prior to the *building* compliance date, the *building owner* may apply for an exemption as specified in Normative Annex Z.

7.2.4.1 The energy target for vacant spaces shall be based on its pre-vacancy activity if the intended use of the *building* will be unchanged.

7.2.4.2 If the total floor area of a nonheated, noncooled, and nonilluminated vacant part of a *building* is smaller than 30((%)) percent of the *gross floor area*, then it shall be excluded from the *gross floor area*, and the energy target shall be determined based on the remainder of the *building* as described in Section 7.2.3. This allowance may not be used to change the total *gross floor area* as it applies to Normative Annex Z, Z3.1 Compliance schedule.

7.2.4.3 If the vacant part of a *building* is heated and/or cooled and the *building* energy-use data for ((twelve)) 12 consecutive month period when the *building* was occupied within two years prior to the compliance date is not available, compliance for this part of the *building* will be determined after it becomes occupied and energy-use data for ((twelve)) 12 consecutive months becomes available.

Table 7-1 ((Commercial and Residential)) Building Activity Types/Activities

Table 7-1 adopted as modified and published in Section Z7

Table 7-2a Building Activity Site Energy Targets (EUI_{t1}) (I-P Units)

Table 7-2a adopted as modified and published in Section Z7

Table 7-2a Building Activity Site Energy Targets (EUI_{t1}) (SI Units) - Not adopted

Table 7-2b Building Activity Source Energy Targets (EUI_{t1}) (I-P

Units) - Not adopted

Table 7-2b Building Activity Source Energy Targets (EUI_{t1}) (SI

Units) - Not adopted

Table 7-2c Building Activity Electricity Site Energy Use Targets

(ELUI_{t1}) (I-P Units) - Not adopted

Table 7-2c Building Activity Electricity Site Energy Use Targets

(ELUI_{t1}) (SI Units) - Not adopted

Table 7-2d Building Activity Fossil Fuel Site Energy Use Targets

(FEUI_{t1}) (I-P Units) - Not adopted

Table 7-2d Building Activity Fossil Fuel Site Energy Use Targets

(FEUI_{t1}) (SI Units) - Not adopted

Table 7-3 Building Operating Shifts Normalization Factor

Table 7-3 adopted as modified in Section Z7

Table 7-4 Building Activity Type Definitions Table

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-070, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

**WAC 194-50-080 ASHRAE Standard 100, 2018—Section 8—((Audits))
Energy Audit Requirements.**

8.1 The *qualified energy auditor* shall complete Form D and submit to the *authority having jurisdiction (AHJ)*. If an energy audit is required within this section, a copy of the audit summary results shall be included in the compliance documentation in a format specified in Normative Annex Z. Compliance with this standard shall be achieved by adopting *energy efficiency measures (EEMs)* that collectively will reduce annual *building energy use*.

Exception to 8.1: For Level 1 audit, no Form D is required.

8.2 Energy audit requirements for buildings without energy targets.

8.2.1 Overall process. ~~((An))~~ A Level 2 energy audit (as defined in Section 8.4.2) shall be conducted for all Tier 1 covered buildings not having an *energy target*. The energy audit and the associated energy audit report shall be completed by a *qualified energy auditor* practicing within their field of competency. ~~((The energy audit shall be a Level 2 audit (as defined in Section 8.4.2).))~~

Exception to 8.2.1: ~~Buildings ((that have completed an))~~ may use energy audits completed within ~~((the previous three years may use the results of the previous audit))~~ five years prior to the building's compliance date, provided that the scope of the energy audit meets the requirements of this section and that there have been minimal changes to the systems within the audit scope. The energy audit must be evaluated consistent with the investment criteria in Normative Annex X.

8.2.2 The scope of the energy audit shall include the following required end uses as applicable to the *building*:

- Envelope;
- Lighting;
- Cooling;
- Heating;
- Ventilation and exhaust systems;
- Air distribution systems;
- Heating, chilled, condenser, and domestic water systems;
- Refrigeration except for food processing refrigeration;
- Power generation equipment;
- Uninterruptible power supplies and power distribution units;
- People-moving systems;
- The scope of the energy audit may include *campus district heating and/or cooling systems* when the *campus district heating and/or cooling system* serves the *building* being audited.

8.3.2 Buildings that do not meet their energy targets overall process. An energy audit shall be conducted, and an associated energy audit report shall be provided, for all *buildings* that do not meet their *energy target*. The energy audit shall be completed by a *qualified energy auditor* practicing within their field of competency. The energy audit shall be at an audit level specified by the *qualified energy auditor* to be sufficient to identify and evaluate the *EEMs* that, if implemented, would result in the *building* meeting its *energy target*. The *qualified energy auditor* may refer to the list of potential *EEMs* in Informative Annex E.

After the completion of the audit and the selection of *EEMs* to be implemented, the applicant must calculate an adjusted (~~(energy-use)~~) energy use intensity (EUI) for the *building* based on the estimated energy savings from the selected *EEMs* and the historical energy use of the *building*. This adjusted *EUI* is then compared to the *energy target* for the *building*. If the adjusted *EUI* is less than the *energy target*, the applicant shall proceed with implementation as specified in Section 9. If the adjusted *EUI* is greater than the *energy target*, a more rigorous energy audit investigation is required to identify additional *EEMs*. This process is repeated until the *building's* adjusted *EUI* is less than its *energy target*.

Calculation of the adjusted *EUI* is shown in the following equation:

$$EUI_{adj} = (\text{Energy}_{hist} - \text{Energy}_{saved}) / \text{GFA}$$

Where:

Energy_{hist} = Historical annual energy use, kBtu

Energy_{saved} = Estimated annual energy savings, kBtu

GFA = Gross floor area, ft²

Following the completion of an energy audit that has identified *EEMs* sufficient to meet the *building's energy target*, the applicant shall implement those *EEMs* per the requirements of Section 9.

Exception to 8.3.2: *Buildings* may use energy audits completed within five years prior to the *building's* compliance date, provided that the scope of the energy audit meets the requirements of this section and there have been minimal changes to the systems within the audit scope. In this case, the same comparison of adjusted *EUI* to energy target shall be made by the applicant. If the *EEMs* identified in the audit are still applicable, have not been implemented, and if implemented would result in the *building* meeting its energy target, these measures shall be implemented by the facility, and the project shall follow the procedures in Section 9. If the identified *EEMs* do not result in an adjusted *EUI* less than the energy target, a new energy audit shall be conducted as described in Section 8.3.2.

8.4.1 Level 1 Audit. *Buildings* shall perform a Level 1 audit (walk-through analysis) as defined in ANSI/ASHRAE/ACCA Standard 211-2018 Standard for Commercial Building Energy Audits, Section 5.3¹².

8.4.2 Level 2 Audit. *Buildings* shall perform a Level 2 Audit (energy survey and engineering analysis) as defined in ANSI/ASHRAE/ACCA Standard 211-2018 Standard for Commercial Building Energy Audits, Section 5.4¹².

8.5.1 Audit results. The energy audit report shall define the actions necessary for the *building owner* to achieve the energy and cost savings that are recommended in the report.

Energy audit results shall be presented in a summary table that includes, at a minimum, an estimate of each of the following:

- A list of recommended *EEMs* that, if implemented, will either meet the *energy target* for the *building* if it has a target or, if it does not have an *energy target*, will meet the economic criteria set by the standard in Section 9.

- The estimated energy savings and peak demand savings associated with each recommended *EEM*, expressed in the cost units used on the *building owner's* energy bills, and the units used for comparison with the *energy target*.

- The estimated (modeled) *energy cost* savings associated with each recommended *EEM*.

- The estimated cost of implementation for each recommended *EEM*. The costs of implementation shall include the required monitoring of energy savings per the requirements of Section 9.

The economic evaluation of measures are required by Normative Annex X.

8.5.2 Interactive effects. Energy savings analysis shall include *interactive effects* of all selected *EEMs*. When considering multiple *EEMs* with *interactive effects*, the order of analysis shall start with load reduction measures and proceed through distribution systems and associated equipment efficiencies and then plant and heat-rejection systems. Any *interactive effects* on equipment sizing and part load performance of equipment shall be accounted for due to reduced loads on subsequent systems.

8.5.4.1 Nonfederal facilities. The minimum financial criteria required for reporting is specified in Normative Annex X.

8.5.4.2 U.S. Federal Facilities - Not adopted.

8.5.5 End-use analysis. The energy audit shall include an end-use analysis that compares the estimated energy use of the facility after implementation of all selected *EEMs* to historical utility consumption. The intent of this requirement is to ensure that estimates of the base-case end-use energy estimates and potential energy-savings estimates in the energy audit report are reasonable.

Informative Note: For example, if the audit identifies lighting retrofit opportunities, the *qualified energy auditor* shall compare the identified energy savings for those opportunities with the base-case energy use of the facility and demonstrate that they make up a reasonable fraction of the historical electricity consumption at the site.

8.5.5.2 Requirements for Level 2 Audits. The *qualified energy auditor* is required to estimate the energy use of all end uses that individually comprise more than ((5%)) five percent of total historical *building* energy use. The energy estimates for these end uses shall be summed and compared to historical energy consumption for the facility. The sum of the base-case end-use energy estimates must be between 90((%)) percent and 100((%)) percent of the historical energy use at the site.

This comparison shall be conducted separately for each fuel type, such as electricity, natural gas, or fuel oil, for which *EEMs* are identified. On-site energy sources such as solar, photovoltaic, geothermal, and wind shall be included.

Correction for historical weather for the base year versus average weather used in *baseline* estimates may be used.

The same energy-use estimates that comprise the end-use analysis shall also be used as the basis for energy savings calculations. The *qualified energy auditor* shall verify that each *EEM* savings estimate is reasonable in comparison to the historical energy consumption of that end use based on energy consumption survey data or experience with similar sites.

The *qualified energy auditor* shall verify that the combined savings from multiple *EEMs* shall take into account *interactive effects* among measures.

Miscellaneous plug loads may be estimated on average equipment power density and *building area*. (See Form D in Normative Annex Z.)

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-080, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-090 ASHRAE Standard 100, 2018—Section 9—Implementation and verification requirements.

9.1.1 Requirements. *Buildings* that have an *energy target* shall comply with the requirements of Section 9.1.1.1. *Buildings* that do not have an *energy target* shall comply with the requirements of Section 9.1.1.2. All *buildings* shall implement an energy management plan as described in Section 5. The energy management plan shall be integrated into the *building's capital management plan* as described in Section 5. The energy management plan shall include the elements listed in Section 5.

9.1.1.1 Buildings with energy targets. For *buildings* having energy targets, *energy efficiency measures (EEMs)* identified from the energy audit shall be implemented in order to meet the *building's energy target*. Develop a written plan for *maintaining the building's ((energy-use)) energy use intensity (EUI)* at or below the energy target.

Exceptions to Section 9.1.1.1:

1. *Buildings* may demonstrate compliance by implementing all of the ((EEM's)) *EEMs* that achieve the investment criteria in Normative Annex X.

2. Implementation of *EEMs to campus district heating and/or cooling system(s)* in lieu of *EEMs* implemented directly to *campus buildings* is acceptable provided the energy audit demonstrates the energy savings from the *campus district heating and/or cooling system EEMs* will be greater than the *EEMs* identified for the *buildings*. Energy savings shall be measured as a reduction in Btu per year.

3. Implementation of *EEMs to non-Tier 1 covered buildings* complying at the campus-level or connected building level is acceptable, provided the energy audit demonstrates the energy savings from the *EEMs* implemented at the campus-level or connected building level will be at or below the energy target of campus-level or connected building level.

4. *Tier 2 covered buildings.*

9.1.1.2 Buildings without energy targets. *Buildings* that do not have an *energy target* shall implement all of the *EEMs* that achieve the investment criteria in Normative Annex X.

Exceptions to 9.1.1.2:

1. Implementation of *EEMs to campus district heating and/or cooling system(s)* in lieu of *EEMs* implemented directly to *campus buildings* is acceptable provided the energy audit demonstrates the energy savings from the *campus district heating and/or cooling system EEMs* will

be greater than the *EEMs* identified for the *buildings*. Energy savings shall be measured as a reduction in Btu per year.

2. Tier 2 covered buildings.

9.1.1.2.1 - Not adopted.

9.1.1.2.2 - Not adopted.

9.1.2.1 Training of Building Staff. An ongoing written training plan shall be implemented. *Building* occupants and staff shall be trained, at a minimum, as established by the operations and maintenance (O&M) program defined in Section 6.

9.1.2.2 Multiple buildings. A multiple-building plan shall be implemented to coordinate *EEM* implementation and measurement of the *EUI* among *buildings* when complying at the *campus*, *campus-level* or *connected building level*.

9.1.2.3 Implementation and commissioning of *EEMs*. *EEMs* shall be implemented and commissioned in accordance with the Washington State Energy Code. Washington state energy code (*WSEC*) exceptions based on mechanical system or service water heating capacity shall not be applied when developing the scope for commissioning. For example, the 2018 *WSEC*, Section C408.1 General, the exceptions do not apply. The *qualified energy auditor* or *qualified person* shall review the commissioning report and certify that the *EEMs* are functioning as intended.

Informative Note: For guidance on commissioning protocols, refer to ASHRAE Guideline 0.2-2015 Commissioning Process for Existing Systems and Assemblies and ASHRAE Guideline 1.2-2019 Technical Requirements for the Commissioning Process for Existing HVAC&R Systems and Assemblies.

9.1.2.4 Energy efficiency sequencing. Implementation of *EEMs* shall be prioritized to take advantage of the life cycle of *building* systems and to minimize the disruption of *building* occupants. Delayed implementation shall be evaluated using the methodology included in Normative Appendix X and reported in the energy management plan.

9.2.2 Verification of implemented *EEMs* for Buildings without Energy Targets. Upon implementation of *EEMs*, the affected end-use systems shall be monitored for one year to verify *EEM* energy savings. The *qualified energy auditor* or *qualified person* shall review the results of the *EEM* energy monitoring and certify that the energy savings of the package of *EEMs* meets or exceeds 75((%)) percent of the energy savings projected in the energy audit as required. For *buildings* unable to meet the requirements of Section 5.2 Building energy monitoring, the *qualified energy auditor* or *qualified person* shall provide verification using the methods of the *International Performance Measurement & Verification Protocol, Concepts and Options for Determining Energy and Water Savings Volume I*¹¹ options A through D.

9.3 Compliance. The *qualified person* shall complete the compliance documentation as required in Normative Annex Z.

ASHRAE Standard 100, 2018—Section 10 - Not adopted.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-090, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-120 Normative Annex C Forms. For Washington State Compliance Normative Annex C forms adopted as modified and published in Normative Annex Z, Section ((Z7)) Z6. Compliance forms for Tier 1 covered buildings and Normative Annex Y, Section Y6 Compliance forms for Tier 2 covered buildings.

Informative Annex F Standard 100 Compliance Flow Chart - Not adopted.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-120, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-130 Normative Annex L—Operations and maintenance implementation.

L2 Operations and maintenance program.

Each *building* system shall have an ((O&M)) O&M program that, at a minimum, preserves the condition of the system and its elements in a manner that enables the system to provide the intended thermal and visual comfort, energy efficiency, and helps to achieve the intended indoor environmental quality required for the *building*.

At a minimum, the ((O&M)) O&M program shall contain an inventory of equipment, systems and controls to be inspected and ((maintained)) maintained and a maintenance plan describing the goals, objectives, and execution of the systems maintenance program.

L2.2.3 Inspection and maintenance tasks. Inspection and maintenance tasks for inventoried equipment, systems and controls shall be established. Inspection shall include the physical assessment of system components and may include measurement of operating parameters and data provided by sensors or a *building* management system (BMS). Maintenance tasks shall include adjustment, service, or replacement of inventoried equipment and systems. Control systems settings including, but not limited to, set points, schedules, and sequence of operations shall be inspected and ((maintained)) maintained.

L2.2.4 Inspection and maintenance task frequencies. Frequency of inspection and maintenance tasks for inventoried equipment, systems, and controls shall be established. If unacceptable condition indicators or unacceptable performance is found during two consecutive inspections, the owner or owner's designated representative shall investigate and analyze possible causes. At a minimum, the following possible causes shall be investigated:

- *Poor field practices.* Review inspection documentation and/or technician execution to ensure maintenance tasks are performed correctly.
- *Insufficient time budgeted for tasks.* Review time budgeted to the technician to ensure that reasonable time has been given to perform the tasks.
- *Component repairs noted/pending/not made.* Inspect documentation to determine that repair or component replacement has been undertaken.

- *Design issues.* Determine whether underlying design issues are causing successive failures.
- *Obsolete equipment or components.* Determine whether the equipment or component has been in service beyond its (~~useful life~~) useful life.
- *Conditions outside of the building system causing failure.* Investigate whether water leaks, vandalism, a problem in the building envelope, a problem with the power supplied to the building, or some other external factor is causing the problem.

Based on the analysis, the inspection frequency or the maintenance task shall be modified to resolve the deficiency.

If acceptable condition indicators or acceptable performance is found during three successive inspections, the inspection frequency for that task may be reduced from the existing frequency. The reduced frequency shall be based on the specific findings and shall be documented.

Frequency may be adjusted for climate related or operational reasons. Each adjusted frequency shall be documented, including the reason for the adjustment.

Informative Note: Examples include the following:

- **Cooling tower shutdown during the winter.** Inspection and maintenance may be suspended during the shutdown period.
- **A new chiller is installed and the old chiller is retained as a backup.** Inspection and maintenance of the backup unit may be adjusted to reflect fewer operating hours.
- **A new lighting fixture and lamp is installed with a much longer life expectancy.** Inspection and lamp replacement frequency may be extended to reflect the new device.

L2.2.5 Documentation. A minimum inspection and maintenance documentation package shall consist of the following items:

1. Listings of *building* systems and system components with associated performance criteria pertinent to the facility.
2. Inspection and maintenance tasks and the method of tracking (automated or manual).
3. Identify building systems or components operating beyond their (~~useful life~~) useful life.
4. Sufficient record detail and verification (written or electronic) to demonstrate implementation of the maintenance plan.

The inspection and maintenance document directory shall provide easy access and be well organized and clearly identified. Emergency information shall be immediately available and shall include emergency staff and/or agency notification procedures.

Informative Annex M Guidance on Building Type Definitions - Not adopted.

Informative Annex N Addenda Description Information - Not adopted.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-130, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 20-22-059, filed 10/30/20, effective 11/30/20)

WAC 194-50-140 Normative Annex X—Investment criteria—This is a normative annex and is part of the Tier 1 covered building requirements of this standard.

X1 Demonstrating compliance with the investment criteria. *Buildings* seeking compliance using the exception to Section 9.1.1.1 or 9.1.1.2 shall demonstrate compliance with the financial investment criteria of this annex. The investment criteria shall be documented using a level 2 energy audit and by performing the life cycle cost analysis (LCCA) as per X2.2.

X1.1 General guidance on cost and benefits for the base case and alternative case.

The life cycle cost analysis is a process which compares the base case of the existing *building* to the alternative case that implements *EEMs* proposed by the energy audit. Total life cycle cost of each case are produced by the analysis, but the resulting cost and benefits of interest are the incremental life cycle cost difference between each case. Measures and bundles of measures demonstrating positive life cycle cost compared to the base case are to be implemented in accordance with chapter 9.

The base case will include all costs for energy, operations and maintenance and other related cost scheduled in the analysis period. This may include replacement of existing equipment upon failure with code compliant equipment. All these costs are captured in the base case.

The alternate case captures all cost and benefits associated with implementing additional efficiency features. All costs and all benefits of implementing *EEMs* required by Section 9 should be captured by the analysis. All documented costs may be considered.

Extended implementation periods are allowed by this standard. This allows more *EEMs* to be considered at time of failure resulting in much of the cost of implementation being attributed to the base case. This requires including the implementation timing of the measure in the extended compliance period. Ultimately, this reduces the cost of the alternative case and will likely make *EEMs* that are not cost-effective as an early replacement be cost-effective as replacement upgrades.

X2 Energy audits and investment criteria pathway.

X2.1 *Buildings* qualifying under the investment criteria must complete a LCCA and implement an *optimized bundle of energy efficiency measures* that provide maximum energy savings without resulting in a *savings-to-investment ratio* of less than one.

Exception: *Building owners* may demonstrate compliance with this section by completing the Level 2 energy audit and implementing all *EEMs* determined to have a *simple payback* that is less than the *EEMs* expected *useful life*.

X2.2 The procedures for developing the investment criteria shall be based on ANSI/ASHRAE/ACCA Standard 211 Section 5.5.2 and Section 5.5.3 Life-Cycle Cost Analysis (LCCA) as modified by section X2. The LCCA shall also follow, and consider the findings of, the Level 2 Audit as defined by ANSI/ASHRAE/ACCA Standard 211 Section 5.4.

X2.3 Investment criteria chronological process.

X2.3.1 Level 2 audit. Evaluate a comprehensive list of individual *EEMs* using *simple payback* as a screening criteria. Individual *EEMs* determined to have a simple payback that is greater than the *EEMs useful life* may be excluded from further consideration.

X2.3.2 Life cycle cost assessment. Identify an *optimized bundle* of *EEMs* that provides maximum energy savings without resulting in a *savings-to-investment ratio* of less than one. The *optimized bundle* of measures shall be implemented based on the schedule established within the energy management plan.

X2.3.2.1 Life cycle cost assessment on individual measures. Individual measures that do not meet the life cycle cost test may be excluded from the implementation plan if they are not integral to the implementation of other cost-effective measures in the bundle.

X2.3.2.2 Phased implementation. The *LCCA* and energy management plan may include phased implementation such that the *building owner* is not required to replace a system or equipment before the end of the system's or equipment's *useful life*.

X3 Included LCCA costs and savings.

X3.1 The costs and savings to be included within the life cycle cost analysis shall be based on ANSI/ASHRAE/ACCA Standard 211 Sections 5.4.8.1, 5.5.2 and 5.5.3 as modified by the following:

X3.1.1 Cost for implementation of EEM, as required by Section 9.

Estimate EEM Costs (based on Standard 211 Sections 5.4.8).

Estimate the total expected cost of implementation for each practical measure. Cost estimates shall include the following factors, as applicable:

1. Material costs;
2. Labor costs, contracted or executed by employees;
3. Design fees;
4. Construction management, contracted or executed by employees;
5. Site-specific installation factors;
6. Permits;
7. Temporary services;
8. Testing, adjusting, and balancing;
9. Utility service upgrades;
10. Verification, as required in Section 9.2.2 only;
11. Commissioning;
12. Taxes;
13. Profit;
14. Any additional adjustments that significantly impact the cost estimate of the *EEM*.

Informative Note: Multiple measures affecting the same *building systems* or end uses may be combined and their costs estimated as a group. Combining costs may improve the cost-effectiveness of combined measures.

Hazardous material abatement (based on standard 211, 5.4.8.2). Estimation of hazardous material abatement costs is not required. If the possible presence of hazardous materials is apparent at the site, either through observation or as reported by others, the possible presence of the hazardous material shall be included in the report (see Standard 211 Section 6.2.5) as potentially affecting health and safety and installation costs.

Cost and cost savings of recommended EEMs (based on standard 211 Section 5.5.2).

Estimate the initial and recurring costs, energy cost savings, and nonenergy cost savings of each measure and each integrated group of measures. Cost estimates shall either be:

1. Obtained from a vendor at the quoted price; or
2. Based on quotations of similar projects within the last year;

or

3. Based on labor cost estimates for employee labor.

Life-cycle cost analysis (LCCA) (based on standard 211 section 5.5.2).

LCCA 7,8,9,10 of each recommended EEM shall be conducted for a time frame that spans, at a minimum, the life of the measure with the longest service useful life and shall include the following:

1. Initial costs (per Standard 211 Section 5.4.8.1);
2. Financing costs;
3. Annual energy costs;
4. Escalation rates as published by the AHJ citing the source within the energy audit report;
5. Discount rates as published by the AHJ citing the source within the energy audit report;
6. Tax credits and deductions;
7. Cash incentives, grants, and rebates;
8. Expected periodic replacements;

9. Estimated recurring nonenergy costs (maintenance, etc.), of each measure or set of measures. Such costs include annual maintenance and service labor costs, routine replacement of worn parts, or annual warranty fees from manufacturers;

10. Contingency funds not to exceed 5((%)) percent of estimated EEM implementation cost; and

11. Water & sewer savings from EEM. EEMs that provide water and/or wastewater savings shall include the operations and maintenance savings resulting from implementation of the EEM.

X4 Life cycle cost analysis methodology, form and key variables.

X4.1 Life-cycle cost analysis completed for buildings qualifying under the investment Criteria shall follow the *National Institute of Standards and Technology (NIST) Life-Cycle Costing Manual Handbook 135* except as specified in this standard in Table X4.

Table X4 Life Cycle Cost Analysis Variables Independent Of NIST Handbook - 135 Methodology.

| | |
|-----------------------------|--|
| Public owner discount rate | A fixed annual rate based on the cost of borrowing through the Washington state treasurer, certificate of participation programs, the local program and the state lease-purchase program. |
| Private owner discount rate | Shall be the published <i>Wall Street Journal Prime Rate</i> for based on the average of the previous twelve months. |
| Financing | Applicants with documented costs of borrowing assuming one hundred percent of the EEM implementation costs are financed at an actual cost of borrowing and stated terms when the property being improved is listed as loan collateral. |
| Rate of inflation | A fixed annual rate, as published annually by the Washington state office of financial management. |
| Fuel escalation rate | Based on the most recent edition of <i>NIST Handbook - 135 Annual Supplement - Fuel Escalation Rates</i> . |
| Study period | Equal to the <i>useful life</i> of the longest-lived EEM within an <i>optimized bundle</i> . (STD 211, 5.5.3) |

X4.2 Publication of analysis variables. The *AHJ* shall on an annual basis publish the public owner discount rate, private owner discount rate, rate of inflation and fuel escalation rates on the agency website.

[Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-140, filed 10/30/20, effective 11/30/20.]

AMENDATORY SECTION (Amending WSR 23-13-081, filed 6/15/23, effective 7/16/23)

WAC 194-50-150 Normative Annex Z—Washington state Tier 1 covered buildings reporting requirements—This is a normative annex and is part of the Tier 1 covered building requirements of this standard.

Z1 Building owner notifications by the AHJ.

Z1.1 Notification to building owners of covered (~~commercial~~) buildings by the AHJ. Based on records obtained from each county assessor and other available information sources, the *AHJ* must create a database of covered (~~commercial~~) buildings and building owners required to comply with the standard established in accordance with this section. The database may include buildings and building complexes presumed to meet the definition of covered (~~commercial~~) building and multifamily buildings greater than 50,000 square feet in floor area.

Z1.1.1 The database will contain information about buildings that may be subject to compliance, their owners, and information about multifamily residential buildings eligible for incentives. The database will also contain information to assist tracking and reporting on building owner compliance, and incentive application and distribution. Commerce will create a method for tracking building owner notification responses. Each building or building complex will be assigned a unique building identifier.

Z1.2 By July 1, 2021, the *AHJ* must provide the owners of covered (~~commercial~~) buildings with notification of compliance requirements. Notifications will be mailed to the mailing addresses county assessors have on file.

Z1.3 Failure by the *AHJ* to provide the notification in Z1.2 does not release the building owner of the legal obligation to comply with this law. When a covered building undergoes a change of ownership, it is the buyer's responsibility to contact the AHJ and update the covered building's profile.

Z1.4 By July 1, 2021, the *AHJ* must provide notifications to the building owners of multifamily residential building where the floor area exceeds 50,000 gross square feet, excluding the parking garage area.

Z2 Building owner response to notifications.

Z2.1 Correction of errors. Building owners are responsible for reviewing the property and building information provided by the *AHJ* through notification including, but not limited to, building or building complex ownership details, gross floor area, and other information as identified by the building owner.

Z2.1.1 Correction of errors documentation form. *Building owners who are notified in error may submit a correction form to the AHJ. The correction form will be used to document gross floor area (conditioned and unconditioned) and/or building type. Building owners that submit the correction form must also submit the documentation required to demonstrate an exception as required in Section Z4.1 prior to the compliance date if applicable.*

Z3 Washington state reporting requirements for building owners.

Z3.1 General compliance. *The building owner of a covered (~~commercial~~) building must report compliance with the standard to the AHJ in accordance with the compliance schedule established under Section Z3.1 and every five years thereafter. For each reporting date, the building owner must submit documentation to demonstrate that:*

1. The weather normalized energy use intensity of the covered (~~commercial~~) building measured in a period not to exceed two years prior to the compliance deadline specified in Normative Annex Z3.1 is less than or equal to the energy use intensity target (buildings that meet their energy targets); or

2. The covered building has met the measurement and verification requirements of Section 4.3.3.3 or Section 4.3.3.4 of the investment criteria; or

3. The covered (~~commercial~~) building has received conditional compliance from the (~~department~~) AHJ based on energy efficiency actions prescribed by the standard; or

(~~3.~~) 4. The covered (~~commercial~~) building is exempt from the standard by demonstrating that the building meets one of the criteria for an exemption.

(~~Z3.1~~) Z3.2 Compliance schedule. *The building owner of a covered (~~commercial~~) building must report the building owner's compliance with the standard to the (~~department~~) AHJ in accordance with the appropriate initial compliance date as follows and every five years thereafter. Covered buildings complying at a campus-level or connected building level shall use the compliance schedule representing the largest covered building or the compliance schedule can be graduated through conditional compliance based upon individual covered building compliance schedules. Notify the AHJ to update the covered building profile(s) and your compliance deadline.*

1. For a building with more than 220,000 gross square feet, June 1, 2026;

2. For a building with more than 90,000 gross square feet but less than (~~220,000 and one~~) 220,001 gross square feet, June 1, 2027; and

3. For a building with more than 50,000 gross square feet but less than (~~90,000 and one~~) 90,001 gross square feet, June 1, 2028.

(~~Z3.1.1~~) Z3.2.1 Early compliance option. *Building owners may submit for compliance to the AHJ beginning July 1, 2023. (~~The weather normalized energy use intensity~~) Energy use data for developing the net energy consumption of the covered (~~commercial~~) building shall be measured in a period not to exceed two years prior to the submission of compliance documentation. This section expires June 1, 2028.*

(~~Z3.1.2~~) Z3.2.2 Application for conditional compliance. *Applications for conditional compliance must (~~be submitted~~) submit to the AHJ no later than 180 days prior to the compliance date to receive conditional compliance approval prior to the compliance date.*

((Z3.1.3)) Z3.2.3 Application for exemption. *Building owners* submitting an application for exemption as specified in Section Z4.1 must ~~((be submitted))~~ submit to the AHJ no sooner than three years prior and no later than 180 days prior to the compliance date to receive exemption approval prior to the compliance date.

Z4 Documentation of compliance with the standard. Documentation of compliance shall be submitted to the AHJ demonstrating the *building owner* has complied with the standard through submission of documentation in accordance with Section Z4.1, Z4.2, Z4.3, Z4.4 or Z4.5. Additional requirements for continued reporting may be required as specified in Z4.6.

Z4.1 Documentation of compliance through exemption. *Building owners* seeking approval of exemption shall submit to the AHJ the Z6.7 Form H, "Application for exemption certificate," documenting the following:

1. **Exemption conditions.** The *building* qualifies for one of the ~~((following))~~ exemptions listed in Z4.1(2), and:

a. **Exemption verification.** Compliance with the exemption must be verified by the owner based on the *building* as it is to be occupied and operating on the compliance date;

b. **Exemption application time frame.** Applications for exemptions may be submitted no sooner than three years prior to the compliance date and submitted to the AHJ no later than 180 days prior to the compliance date;

c. **Exemption certificate validity.** Exemptions certificates are only valid for the current compliance review cycle.

d. **Exemption recertification.** Within six months before the compliance date, *building owners* who have received exemption approval must certify that the *building* still meets the eligibility qualifications for the exemption and that there have been no material changes to qualifying conditions. A template for acceptable declarations will be made available by the AHJ on the agency website.

2. **Exemptions.** ~~((commercial))~~ *Covered buildings* are not eligible for exemption from the standards unless they meet at least one of the following criteria:

a. **Certificate of occupancy.** The *building* did not have a certificate of occupancy or temporary certificate of occupancy for a consecutive 12-month ~~((s))~~ period within two years prior to the compliance date;

b. **Physical occupancy.** The *building* did not have *physical occupancy* by owner or tenant for at least 50 percent of the *conditioned floor area* throughout the consecutive 12-month period prior to the *building* compliance date. Buildings approved for this exemption that have a gross floor area with greater than 20,000 square feet of occupied floor area shall comply with Tier 2 covered building requirements for the occupied floor area;

c. **Unconditioned and semi-heated space.** The sum of the *building's gross floor area* minus unconditioned and ~~((conditioned))~~ heated spaces, as defined in the Washington State Energy Code, is less than 50,000 square feet. Buildings approved for this exemption with gross floor area minus unconditioned and semi-heated spaces, as defined in the Washington State Energy Code, greater than 20,000 square feet shall comply with Tier 2 covered building requirements of this standard;

d. **Manufacturing or industrial.** More than 50 ~~((%)~~) percent of the *gross floor area* of the *building* is ~~((primarily))~~

ing or other industrial purposes, as defined under the following use designations of the Washington state edition of the *International Building Code*:

- i. Factory group F; or
- ii. High hazard group H.

Aggregate gross floor area of spaces with nonexempt occupancy classification greater than 20,000 square feet shall comply with Tier 2 covered building requirements.

- e. **Agricultural.** The *building* is an agricultural structure;
- f. **Demolition.** The *building* is pending demolition; or
- g. **Financial hardship.** The *building* meets at least one of the following conditions of financial hardship:
 - i. The *building* had arrears of property taxes or water or waste-water charges that resulted in the *building's* inclusion, within the prior two years, on a city's or county's annual tax lien sale list;
 - ii. The *building* has a court appointed receiver in control of the asset due to financial distress;
 - iii. The *building* is owned by a financial institution through default by a borrower;
 - iv. The *building* has been acquired by a deed in lieu of foreclosure within the previous 24 months;
 - v. The *building* has a senior mortgage subject to a notice of default;
 - vi. The *building owner* has an immediate and heavy financial need which cannot be satisfied from other reasonable available resources and which are caused by events that are beyond their control.

3. **Notification of exemption approved or denied.** After documents have been submitted and reviewed, the *AHJ* will send notification of approval or denial.

a. If the exemption is approved the *AHJ* shall notify the applicant stating the application has been approved and update the *AHJ* records for the *building*.

b. If the exemption is denied the *AHJ* shall notify the applicant stating the application has been denied and update the *AHJ* records for the *building*.

4. **Compliance required when exemption denied.** When an application for exemption is denied the *building owner* must proceed with the process to demonstrate compliance with one of the compliance options in Washington state reporting requirements for *building owners*, Z4.2-Z4.5.

Z4.2 Buildings that meet the EUI_t . *Building owners* must provide the following documentation to verify that the *building weather normalized EUI* is less than the *building EUI_t* and that the energy management plan (~~(is complete and being)~~) (EMP) must be completed and the operations and maintenance program (O&M) must be implemented.

- Form A;
- Form B;
- Form C.

Z4.3 Buildings that will meet the building investment criteria prior to the compliance date. *Building owners* must provide the following documentation to verify that the *building* has implemented all *EEMs* that meet the cost-effectiveness criteria resulting from the energy audit and economic evaluation criteria from Normative Annex X. The energy management plan (EMP) must be completed and the operations and

maintenance program (O&M) must be implemented and all EEMs must be installed and commissioned prior to the compliance date.

- Form A;
- Form B;
- Form C, except *buildings* unable to meet Section 5.2, Building energy monitoring;
- (~~(Energy audit report: Level 2 energy audit; Normative Annex X - Investment Criteria Form)~~) Form D;
- Form F.

Z4.4 Buildings that will meet the EUI_t through conditional compliance.

Building owners must provide the following documentation to verify that the *building weather normalized EUI* is projected to be less than the *building EUI_t* at the end of the measurement and verification period and that the energy management plan (~~(is complete and being)~~) (EMP) must be completed and the operations and maintenance program (O&M) must be implemented. *EEMs* required to meet the *EUI_t* must be installed and commissioned prior to the compliance date. Verification and completion shall be documented as required in Section Z4.6.

- Form A;
- Form B;
- Form C;
- (~~(Energy audit report: Level 2 Energy Audit)~~) Form D.
- Continued reporting until completion as specified in Section Z4.6.

Z4.5 Buildings that will meet the building investment criteria through conditional compliance.

Building owners must provide the following documentation to verify that the *building* has implemented all *EEMs* that meet the cost-effectiveness criteria resulting from the energy audit and economic evaluation criteria from Normative Annex X. The energy management plan (EMP) must be completed and the operations and maintenance program (O&M) must be implemented and all EEMs must be installed and commissioned prior to the compliance date. Verification and completion shall be documented as required in Section Z4.6.

- Form A;
- Form B;
- Form C, except *buildings* unable to meet Section 5.2 Building Energy Monitoring;
- (~~(Energy audit report: Level 2 energy audit; Normative Annex X - Investment Criteria Form)~~) Form D;
- Form F.
- Continued reporting until completion as specified in Section Z4.6.

Z4.5.1 Phased implementation for investment criteria through conditional compliance. The *building owner* may include phased implementation of *EEMs* such that the *building owner* is not required to replace a system or equipment before the end of the system or equipment's *useful life*. System or equipment fitting this description shall be included in the energy audit and Normative Annex X - Investment Criteria submission with a schedule for replacement. Phased implementation shall be documented in the *energy management plan (EMP)* and *capital management plan* required in Section 5.

Z4.6 Continued reporting until completion. Continued reporting is required as specified in Sections Z4.6.1 and Z4.6.2 until completion when: a) measurement and verification extends one year or more beyond the compliance date, or b) implementation is extended phased implementation.

Z4.6.1 Annual reporting. The following up to date reports shall be submitted to the AHJ annually, (date specific).

- Form A;
- Form B;
- Form C, except *buildings* unable to meet Section 5.2, Building energy.

Z4.6.2 Completion Reporting. The following up to date reports shall be submitted to the AHJ when all conditions of compliance have been verified and documented:

- Form A;
- Form B;
- Form C, except *buildings* unable to meet Section 5.2, Building energy monitoring. *Buildings* unable to meet Section 5.2 shall include the verification specified in Section 9.2.2 in the building energy management plan.

Z5 Violations, assessment of administrative penalties, mitigation and review of penalty decisions.

Z5.1 Authorization. The AHJ is authorized to impose administrative penalties upon *building owners* for failing to submit documentation demonstrating compliance with the requirements of this standard.

Failure to submit documentation demonstrating compliance by the scheduled reporting date will result in progressive penalties by legal notice.

Z5.2 Notice of violation and opportunity to correct (NOVC) (first notice).

Z5.2.1 Notifying owner of failure to demonstrate compliance. The ((department)) AHJ may issue a NOVC when a *building owner* has failed to submit documentation that demonstrates compliance with this standard by the scheduled reporting date.

Z5.2.2 Issuing NOVC. A NOVC may be issued for any of the following reasons:

1. Failure to submit a compliance report in the form and manner prescribed by the AHJ;
2. Failure to meet an *energy use intensity target* or failure to receive *conditional compliance approval*;
3. Failure to provide accurate reporting consistent with the requirements of the standard; and
4. Failure to provide a valid exemption certificate.

Z5.2.3 Identifying failure to demonstrate compliance. The AHJ will identify in the NOVC which section(s) of law, code, or the standard for which the *building owner* has failed to demonstrate compliance.

((Z5.2.3)) Z5.2.4 Specifying time frame to remedy. The NOVC will specify the time by which the *building owner* must cure the violation by submitting documentation that demonstrates compliance with the identified section(s) of law, code, or the standard. The AHJ will give the *building owner* at least seven calendar days to submit such documentation.

((Z5.2.4)) Z5.2.5 Missing NOVC response deadline. If sufficient documentation is not submitted by the date specified in the NOVC, the *AHJ* will issue a notice of violation and intent to assess administrative penalties (NOVI) and the *building owner* will be subject to administrative penalties.

Z5.3 Notice of violation and intent to assess administrative penalties (NOVI) (second notice).

Z5.3.1 Issuing NOVI. If a *building owner* fails to respond to a NOVC by submitting documentation demonstrating compliance by the date specified in the NOVC, the *AHJ* will issue a NOVI.

Z5.3.2 Identifying failure to demonstrate compliance and assessing penalties. The *AHJ* will identify in the NOVI which section(s) of law, code, or the standard for which the *building owner* has failed to demonstrate compliance. The NOVI will also include a description of how the penalties the *AHJ* intends to assess will be calculated.

Z5.3.3 Responding to NOVI. *Building owners* must respond to a NOVI within 30 days by either:

1. Submitting an application for exemption in accordance with Section Z4.1 if applicable;
2. Submitting a noncompliance mitigation plan in accordance with Z5.7;
3. Submitting its intent to pay the penalties by using the form provided by the *AHJ*; or
4. Submitting a request for an administrative proceeding to challenge or mitigate the penalty.

((Z5.3.3)) Z5.3.4 Missing NOVI response deadline. If the *building owner* does not timely request a hearing or submit an application for exemption, the *building owner* waives its right to a hearing and the *director* or their designee may issue a final order assessing the penalties described in the NOVI. If the *building owner* has submitted a mitigation plan, the final order will only assess penalties from the scheduled compliance date until the date of an approval of compliance or conditional compliance.

((Z5.3.4)) Z5.3.5 Requesting hearing for denied exemption. *Building owners* who submit an application for exemption that is denied may request a hearing by submitting a request for a hearing within 30 days of issuance of the decision denying its application for exemption. If the *building owner* does not request a hearing within 30 days, the *building owner* waives its right to a hearing and the *director* or their designee may issue a final order assessing the penalties described in the NOVI.

Z5.4 Assessment of administrative penalties.

Z5.4.1 Penalties for building owners. Failure to submit documentation demonstrating compliance with the standard by the date specified in a NOVC will result in the issuance of a NOVI and the assessment of administrative penalties at an amount not to exceed \$5,000 plus an amount based on the duration of any continuing violation. The additional amount for a continuing violation may not exceed a daily amount equal to one dollar per square foot of gross floor area per year.

- a. Penalties are assessed for each compliance period.
- b. The *AHJ* may by rule increase the penalty rates to adjust for the effects of inflation.

25.4.1.1 ((Penalties for building owners that)) Submit a noncompliance mitigation plan. For *building owners* subject to a NOVI who respond within 30 days by submitting a noncompliance mitigation plan (Z5.7), fines shall be assessed on an annual basis or when the *building owner* achieves compliance or *conditional compliance*.

a. **With completion documentation.** For applicants that submit a noncompliance mitigation plan and who submit documentation demonstrating completion, daily penalties will be assessed from the scheduled compliance date to the date of approval of compliance or *conditional compliance*. The penalty will be assessed at an amount not to exceed 30 percent of \$5,000 plus a daily amount equal to 20 cents per square foot of *gross floor area* per year.

b. **Without completion documentation.** For applicants that submit a noncompliance mitigation plan but have not submitted documentation demonstrating completion, if the *building* does not comply with the standard by the next compliance date, the *building owner* will be assessed the maximum penalty of \$5,000 plus a daily amount equal to one dollar per square foot of *gross floor area* per year not to exceed a value greater than 18 months of accrued penalty.

~~((The AHJ may by rule increase the penalty rates to adjust for the effects of inflation.))~~

25.4.1.2 ((Penalties for building owners that)) Choose to pay the fine rather than pursuing compliance. *Building owners* may choose to respond to the NOVI by paying the maximum penalty. The *building owner* will be assessed the maximum penalty of \$5,000 plus a daily amount equal to one dollar per square foot of *gross floor area* per year not to exceed a value greater than 18 months of accrued penalty. ~~((Penalties are assessed for each compliance period.))~~

~~The AHJ may by rule increase the penalty rates to adjust for the effects of inflation.))~~

25.4.2 Late fees. When assessed penalties are not paid within 180 days of the date of a final order assessing penalties, the *AHJ* may assess further penalties. Total penalties assessed for Tier 1 covered buildings will not exceed \$5,000 plus a daily amount equal to one dollar per square foot of *gross floor area* per year.

25.4.3 Interest. Interest will accrue on civil penalties pursuant to RCW 43.17.240 if and when the debt becomes past due.

25.5 Due date and collection of penalties.

25.5.1 Penalties due. Penalties shall become due and payable on the later of:

1. Thirty days after receipt of the final order imposing the penalty; or

2. The date specified in the final order imposing the penalty.

25.5.2 Debt collection. If a penalty has not been paid by the due date, the *AHJ* may assign the debt to a collection agency as authorized by RCW 19.16.500 or take other action to pursue collection as authorized by law. If referred to a collection agency, the *AHJ* may add a reasonable fee, payable by the debtor, to the outstanding debt for the collection agency fee.

25.5.3 Accumulated daily fine. For *building owners* that are implementing a noncompliance mitigation plan but have not yet complied, the *AHJ*

may assess the accumulated daily fine on June 1st of each year or shortly thereafter.

Z5.6 Payment of administrative penalties.

A check or money order payable in U.S. funds to the Washington state department of commerce can be mailed to:

Washington State Department of Commerce
Re: Clean Buildings Initiative, Energy Division
P.O. Box 42525
Olympia, WA 98504-2525

Z5.7 Noncompliance mitigation plan. *Owners of covered ((commercial)) buildings that are out of compliance by the scheduled compliance date and have not corrected the violation by the date noted in a NOVC may reduce possible penalties by demonstrating that they are taking action to achieve compliance with the standard. To begin the process of mitigating noncompliance, a building owner must submit to the AHJ the non-compliance mitigation plan form selecting one of the following actions within 30 days of the date of a NOVI to avoid immediate issuance of penalty in accordance with Z5.4.1.*

1. Compliance with the standard in accordance with Z4.2.
2. *Conditional compliance* with the standard in accordance with Z4.4.
3. *Conditional compliance* with the standard in accordance with Z4.5.

Z5.7.1 Mitigation completion. To demonstrate completion, the *building owner* shall complete all of the requirements of this standard and submit documentation as required by Section Z4.2, Z4.4 or Z4.5. After the *building owner* has demonstrated completion, the *AHJ* shall issue a final order assessing the reduced penalty as specified by Z5.4.1.1(a).

Z5.8 Administrative hearings.

Z5.8.1 Requesting a hearing. A *building owner* may request an administrative hearing after receiving an NOVI or after the denial of its application for an exemption by submitting a request within 30 days of the date of a NOVI or the denial of a timely application for exemption. All requests must be made in writing and filed at the address specified on the NOVI. For convenience, the *AHJ* will attach a form titled request for hearing to the NOVI that may be used to request an administrative hearing.

Requests for hearing must be accompanied by the following:

1. Washington State Building ID;
2. Submit Annex Z Forms A, B, and C.

Z5.8.2 Hearing process. The *AHJ* may refer matters to the office of administrative hearings (OAH). Administrative hearings will be conducted in accordance with chapter 34.05 WAC, Administrative Procedure Act, chapter 10-08 WAC, Model rules of procedure, and the procedural rules adopted in this chapter. In the case of a conflict between the model rules of procedure and the procedural rules adopted in this section, the procedural rules adopted in this section take precedence.

Z5.8.3 Initial orders to become final orders. Initial orders issued by the presiding officer will become final without further agency action unless, within 20 days:

1. The *director* determines that the initial order should be reviewed; or

2. A party to the proceeding files a petition for administrative review of the initial order. Upon occurrence of either event, notice shall be given to all parties to the proceeding.

Z5.8.4. Judicial review. A final order entered pursuant to this section is subject to judicial review pursuant to RCW 34.05.510 through 34.05.598.

Z5.8.5 Collected penalties. (~~(The AHJ will deposit all penalties collected and received by the department under this section)~~) Administrative penalties collected under this section must be deposited into the low-income weatherization and structural rehabilitation assistance account created in RCW ((70.164.030)) 70A.35.030.

Z6 Compliance forms. The following section replace Normative Annex C Forms in Standard 100 and provide additional forms specified by rule *Building owners* are required to submit the applicable forms and the required supporting information to demonstrate compliance with the standard. These forms replace all referenced forms in this standard. The *AHJ* will make these forms available in an electronic format for submission to the *AHJ*.

Z6.1 Compliance with Standard 100 (Form A)

1. Building identification:
 - a. WA state building ID;
 - b. County;
 - c. County parcel number(s);
 - d. Portfolio manager property ID number;
 - e. Property name;
 - f. Parent property name;
 - g. Address 1 (street);
 - h. Address 2;
 - i. City;
 - j. State; and
 - k. Postal code.
2. Contact information:
 - a. *Building owner* name(s);
 - b. Contact name;
 - c. Address 1 (street);
 - d. Address 2;
 - e. City;
 - f. State/Province;
 - g. Country;
 - h. Postal code;
 - i. Telephone number;
 - j. Email address.
3. *Qualified person*:
 - a. *Qualified person* name;
 - b. Address 1 (street);
 - c. Address 2;
 - d. City;
 - e. State;
 - f. Postal code;
 - g. Telephone number;
 - h. Email address((+));
 - i. Licensed, certified (select all that apply) ((+
~~ii. Licensure or~~);
 - i. Licensure; or
 - ii. Certifying authority.

4. *Energy manager* (if different than the *qualified person*):
 - a. *Energy manager name*;
 - b. *Address 1 (street)*;
 - c. *Address 2*;
 - d. *City*;
 - e. *State/Province*;
 - f. *Postal code*;
 - g. *Country*;
 - h. *Telephone number*;
 - i. *Email address*.
5. This compliance report is for:
 - a. *Building* that meets the EUI_t ;
 - b. *Building* that meets the *building* investment criteria prior to the compliance date;
 - c. *Building* that will meet the EUI_t through *conditional compliance*;
 - d. *Building* that will meet the *building* investment criteria through *conditional compliance*;
 - e. *Annual reporting*;
 - f. *Completion reporting*.
6. *Summary data*:
 - a. *Energy* (~~*(utilization index)*~~) *use intensity target* (EUI_t) (~~$(\text{kBtu}/\text{ft}^2\text{-yr})$~~) ($\text{kBtu}/\text{ft}^2/\text{yr}$) based on completed Z6.2 Form B;

Note: Baseline $WNEUI$ for buildings that will meet investment criteria through *conditional compliance*.

- b. *Measured site EUI (kBtu/ft^2) for the compliance year for this building based on Z6.3 Form C*;
- c. *Building without an energy target*;

Note: Predicted site EUI for buildings that will meet the EUI , or investment criteria through *conditional compliance*.

Note: Buildings unable to develop EUI , in accordance with Section 7.2.2 or 7.2.3 of this standard shall report national median site EUI as calculated by the Energy Star portfolio manager account and reported on Form C.

- d. *Measured weather normalized site EUI (kBtu/ft^2) for the compliance year based on Z6.3 Form C*;

~~(d.)~~ e. List the months/year of the collected data (mm/yyyy - mm/yyyy) for the compliance year for this *building* from Z6.3 Form C;

~~(e.)~~ f. *Buildings applying for conditional compliance through meeting the EUI_t shall submit the following based on Section Z6.4 Form D:*

- *Baseline EUI* ;
- *Projected EUI* ;

Buildings applying for conditional compliance through meeting the investment criteria shall submit the following based on Section Z6.4 Form D:

- *Baseline total kBtu*;
- *Projected total kBtu*;
- *Projected savings total kBtu*;

Buildings unable to comply with Section 5.2, Building energy monitoring and complete Z6.3 Form C shall provide a reason statement.

7. Have the energy management requirements of Section 5 been met?
 Yes No

- Upload energy management plan as specified by the AHJ.

8. Have the operation and maintenance requirements of Section 6 been met? Yes No

- Upload operation and maintenance implementation documentation as specified by the AHJ.

9. Date the audit and economic evaluation was completed (N/A if none required).
- Upload audit reports as specified by Z6.4 Form D.
10. Have all *EEMs* required by Section 8 been implemented? [] Yes
[] No
11. Have the requirements of Section 9 been completed? [] Yes
[] No
12. We state that this *building* complies with ANSI/ASHRAE/IES Standard 100 as amended by the *AHJ* to conform with RCW 19.27A.210:
- a. Signature of *building owner*:
 - Date:
 - b. Signature of *qualified person*:
 - Date:
 - c. Signature of *energy manager*:
 - Date:
 - d. Signature of *authority having jurisdiction*:
 - Conditional or final compliance:
 - Date:

Z6.2 Building activity and energy use intensity target (EUI_t) (Form B). - Complete form provided by the *AHJ* with the following information:

1. Building identification:
 - a. Washington state building ID;
 - b. County;
 - c. County parcel number(s);
 - d. Portfolio manager property ID number;
 - e. Property name;
 - f. Parent property name;
 - g. Address 1 (street);
 - h. Address 2;
 - i. City;
 - j. State; and
 - k. Postal code.
2. List the *building* location climate zone, 4C or 5B. Determine the climate zone using ASHRAE climate zone as found on the map in Informative Annex G.
 - a. Buildings located in Climate Zone 5C shall use Climate Zone 4C.
 - b. Buildings located in Climate Zone 6B shall use Climate Zone 5B.
3. The *gross floor area* in square feet shall be reported as defined in Section 3.
4. If *entire building* is single activity/type not listed in Table 7-1, it should be listed as "building without target" on Z6.1 Form A. List "energy target" as "N/A" on Z6.2 Form B and Z6.2 Form B is considered complete.
5. Fill in fraction of *gross floor area* (A)_i for each activity. For single-activity *buildings* this is 1.0.
6. Fill in the operating shifts normalization factor (S)_i from Table 7-3 for each activity (~~(that has an area entered from Step 6)~~).
7. Fill in the activity energy target (EUI_{t1})_i from Table 7-2 (or table from *AHJ*) for each activity (~~(that has an area entered from Step 6)~~).
8. Calculate weighted space *EUI* target ($A \times S \times EUI_{t1}$)_i for each activity (~~(that has an area entered from Step 6)~~).

9. Add up fraction of floor area and enter sum in "Total fraction of floor area with target," and add up all weighted space *EUI* targets and enter sum as the "energy target" on Z6.2 and Z6.1 Forms B and A.

10. If more than 50((%)) percent of *gross floor area* has no target, it should be listed as "building without target" on Z6.1 Form A. List "energy target" as "N/A" on Z6.2 Form B.

For single-activity *buildings* this is 1.0.

Z6.3 Energy-Use Intensity Calculations (Form C). *Energy Use Intensity* Calculations shall be reported via the U.S. EPA's ENERGY STAR Portfolio Manager (www.energystar.gov/benchmark). The *energy manager* is responsible for creating Energy Star portfolio manager record for each *building*.

Exception to Z6.3: *Buildings* unable to comply with Section 5.2, Building energy monitoring shall comply at the *connected buildings level* or demonstrate compliance through Z4.3 or Z4.5.

The Energy Star portfolio manager *building* record shall be identical to the *building* activity/type, fraction floor area, operating shifts (hours of operation) and *gross floor area* of the *building* as reported on Form B. All inputs shall be up to date prior to reporting as required in Section Z4 and annually as required in Section 5.1.2.3, Annual updates of the *net energy use* and *EUI*.

Prior to submitting reports run the Energy Star portfolio manager data quality checker and make all corrections required to complete the report.

The *energy manager* shall use the EPA's Energy Star portfolio manager share properties feature and share the property data with the *AHJ* by enabling the read only access and exchange data feature.

For each report submitted under Section Z4, the *energy manager* shall create and submit a report documenting the required data fields listed (below) and other fields deemed necessary by the *AHJ* for the reporting period. This shall be submitted using the Washington state report specified in Energy Star portfolio manager.

Report fields shall include:

- Portfolio manager property ID;
- Portfolio manager parent property ID;
- Property name;
- Parent property name;
- Address 1;
- Address 2;
- City;
- County;
- State/Province;
- Postal Code;
- Primary property type - Self-selected;
- Primary property type - EPA calculated;
- List of all property use types at property;
- Property GFA - Self-reported (ft²);
- Property GFA - EPA calculated (*buildings* and parking) (ft²);
- Property GFA - EPA calculated (*buildings*) (ft²);
- Property GFA - EPA calculated (parking) (ft²);
- Largest property use type;
- Largest property use type - *Gross floor area* (ft²);
- 2nd Largest property use type;
- 2nd Largest property use - *Gross floor area* (ft²);

- 3rd Largest property use type;
- 3rd Largest property use type - *Gross floor area* (ft²);
- Year built;
- Occupancy;
- Property notes;
- Property data administrator;
- Property data administrator - Email;
- Last modified date - Property;
- Last modified date - Electric meters;
- Last modified date - Gas meters;
- Last modified date - Nonelectric nongas energy meters;
- Local standard ID(s) Washington state building standard;
- Data center - Energy estimates applied;
- Electricity use - Grid purchase and generated from on-site renewable systems (kWh);
- Electricity use - Grid purchase (kWh);
- Electricity use - Generated from on-site renewable systems and used on-site (kWh);
- Natural gas use (therms);
- Fuel oil #1 use (kBtu);
- Fuel oil #2 use (kBtu);
- Fuel oil #4 use (kBtu);
- Fuel oil #5 and 6 use (kBtu);
- Diesel #2 use (kBtu);
- Kerosene use (kBtu);
- Propane use (kBtu);
- District steam use (kBtu);
- District hot water use (kBtu);
- District chilled water use (kBtu);
- Coal - Anthracite use (kBtu);
- Coal - Bituminous use (kBtu);
- Coke use (kBtu);
- Wood use (kBtu);
- Other use (kBtu);
- Default values;
- Temporary values;
- Estimated data flag - Electricity (grid purchase);
- Estimated data flag - Natural gas;
- Alert - Data center does not have an IT meter;
- Alert - *Gross floor area* is 0 ft²;
- Alert - Property has no uses;
- Data quality checker - Date run;
- Data quality checker run - ?
- Alert - Energy meter has less than 12 full calendar months of data;
- Alert - Energy meter has gaps;
- Alert - Energy meter has overlaps;
- Alert - Energy - No meters selected for metrics;
- Alert - Energy meter has single entry more than 65 days;
- Estimated values - Energy;
- Energy Star score;
- National median *site energy use* (kBtu);
- National median site *EUI* (kBtu/ft²);
- *Site energy use* (kBtu);
- *Site EUI* (kBtu/ft²);
- *Weather normalized site energy use* (kBtu);

- *Weather normalized site EUI (kBtu/ft²);*
- *Weather normalized site electricity (kWh);*
- *Weather normalized site electricity intensity (kWh/ft²);*
- *Weather normalized site natural gas use (therms);*
- *Weather normalized site natural gas intensity (therms/ft²) en-
ergy current date;*
- *Electricity use - Generated from on-site renewable systems
(kWh);*
- *Electricity use - Generated from on-site renewable systems and
exported (kWh);*
- *Electricity Use - Grid purchase and generated from on-site re-
newable systems (kBtu);*
- *Electricity use - Grid purchase (kBtu);*
- *Electricity use - Generated from on-site renewable systems and
used on site (kBtu);*
- *Natural gas use (kBtu);*
- *Percent of total electricity generated from on-site renewable
systems;*
- *Cooling degree days (CDD) (°F);*
- *Heating degree days (HDD) (°F);*
- *Weather station name;*
- *Weather station ID.*

Z6.4 End-use analysis requirements. *Building owners shall demonstrate compliance with Form D by providing the documentation required by section Z6.4.1.*

Z6.4.1 Energy Audit Forms (Form D). *The energy audit form shall be provided electronically by completing the energy audit form included in the U.S. Department of Energy, Energy Asset Score Tool, or an equivalent tool provided by the AHJ. This form shall be completed (~~in compliance with~~) to document the ((level-2)) energy audit, as published in ASHRAE Standard 211, Standard for commercial building energy audits, including EEMs considered but determined to have a simple pay-back that is greater than the EEMs useful life.*

Form E - Not adopted.

Z6.5 Annex X, Investment Criteria Tool (Form F).

Z6.5.1 *To demonstrate compliance with the investment criteria of Normative Annex X, building owners shall complete and submit Form F.*

Z6.5.2 Form F shall be developed by the AHJ. *Form F shall be a life cycle cost evaluation tool compliant with NIST Standard 135 and capable of supporting the evaluation criteria required by Normative Annex X.*

Z6.5.3 Form F shall evaluate all EEMs considered that have a simple payback that is less than the EEMs useful life.

Z6.6 Documentation of a building of historic significance (Form G).

Z6.6.1 Energy efficiency measure exemptions for historic buildings. *No individual energy efficiency measure identified by energy efficiency audits need to be implemented if it would compromise the historical integrity of a building or part of a building. Building owners seeking this exception shall provide the following documentation. Certified historic buildings are not exempt from the other requirements of this standard.*

Z6.6.2 Plan for compliance. The owner of a qualifying historic *building* shall have the plan for compliance evaluated by a qualified historic preservationist, as defined in 36 C.F.R., Part 61, identifying any energy efficiency requirement that may compromise the historic integrity of the *building* or part of the *building*. Any element of the plan identified to compromise the historic integrity of the *building* or part of the *building* shall be omitted from the compliance plan. Evidence of this evaluation must be submitted to the *AHJ* for approval.

Z6.6.3 Documentation of a historic building. *Building owners* must provide documentation to the *AHJ* that proves its historic identification or eligibility. Valid documentation from any existing programs listed below is acceptable.

1. Examples of existing programs that verify historic property include:
 - a. The National Register of Historic Places;
 - b. The Washington heritage register;
 - c. Properties that are identified by the department of archaeology and historic preservation (DAHP) to be eligible for listing in either one of these registers; and
 - d. Properties which are listed in a local register of historic places; or
2. Other documentation approved by the *AHJ*.

Z6.7 Application for Exemption Certificate (Form H).

Apply for an exemption certificate by submitting the following documentation (~~to the building owner~~) in the form specified by the *AHJ*. The application must include:

1. Building identification:
 - a. Washington state building ID;
 - b. County;
 - c. County parcel number(s);
 - d. Portfolio manager property ID number;
 - e. Property name;
 - f. Parent property name;
 - g. Address 1 (street);
 - h. Address 2;
 - i. City;
 - j. State; and
 - k. Postal code.
2. Contact information:
 - a. *Building owner* name(s);
 - b. Contact name;
 - c. Address 1 (street);
 - d. Address 2;
 - e. City;
 - f. State/Province;
 - g. Country;
 - h. Postal code;
 - i. Telephone number; and
 - j. Email address.
3. Building information:
 - a. Primary *building* activity from Table 7-1, or a description of the nonlisted building type;
 - b. *Building gross floor area*;
 - c. *Building gross conditioned floor area*.

4. Reason for exemption: Based on exemptions listed in Section 24.1(2).

A list all of documents enclosed and any facts in support of this application. Provide at least two of the acceptable documents listed below:

- a. Municipal or county records;
- b. Documents from a qualified person;
- c. Construction permit;
- d. Certificate of occupancy or application for certificate of occupancy;
- e. Demolition permit;
- f. Financial statements such as statement of assets; liabilities, capital, and surplus, statement of revenue and expenses; or statement of ((ease)) cash flow;
- g. A letter from the *building owner* stating facts and explaining financial hardships;
- h. Other documentation approved by the AHJ.

5. Signature and statement of *building owner* stating that the authorized representative of the *building*, affirm and attest to the accuracy, truthfulness and completeness of the statements of material fact provided in this form.

Z7 Section 7—Tables as modified by Washington state.

Table 7-1 ((Commercial)) Building Activity Types/Activities

| Building Activity Type ^{1,2} | | | | |
|---------------------------------------|-------------------------------|--------------------------------|--------------------------|-------|
| No. | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | Notes |
| 1 | Banking/financial services | Bank Branch | | |
| 2 | Banking/financial services | Financial Office | | |
| 3 | Education | Adult Education | | |
| 4 | Education | College/University | | |
| 5 | Education | K-12 School | Elementary/middle school | |
| 6 | Education | K-12 School | High school | |
| 7 | Education | Preschool/Daycare | | |
| 8 | Education | Vocational School | | |
| 9 | Education | Other - Education | | |
| 10 | Entertainment/public assembly | Aquarium | | |
| 11 | Entertainment/public assembly | Bar/Nightclub | | |
| 12 | Entertainment/public assembly | Bowling Alley | | |
| 13 | Entertainment/public assembly | Casino | | |
| 14 | Entertainment/public assembly | Convention Center | | |
| 15 | Entertainment/public assembly | Fitness Center/Health Club/Gym | | |
| 16 | Entertainment/public assembly | Ice/Curling Rink | | |
| 17 | Entertainment/public assembly | Indoor Arena | | |
| 18 | Entertainment/public assembly | Movie Theater | | |
| 19 | Entertainment/public assembly | Museum | | |
| 20 | Entertainment/public assembly | Performing Arts | | |
| 21 | Entertainment/public assembly | Race Track | | |
| 22 | Entertainment/public assembly | Roller Rink | | |
| 23 | Entertainment/public assembly | Social/Meeting Hall | | |
| 24 | Entertainment/public assembly | Stadium (Closed) | | |

| No. | Building Activity Type ^{1,2} | | | Notes |
|-----|---------------------------------------|--|----------------------------|-------|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | |
| 25 | Entertainment/public assembly | Stadium (Open) | | |
| 26 | Entertainment/public assembly | Swimming Pool | | |
| 27 | Entertainment/public assembly | Zoo | | |
| 28 | Entertainment/public assembly | Other - Entertainment/Public Assembly | Entertainment/culture | |
| 29 | Entertainment/public assembly | Other - Entertainment/Public Assembly | Library | |
| 30 | Entertainment/public assembly | Other - Entertainment/Public Assembly | Other public assembly | |
| 31 | Entertainment/public assembly | Other - Entertainment/Public Assembly | Recreation | |
| 32 | Entertainment/public assembly | Other - Entertainment/Public Assembly | Social/meeting | |
| 33 | Entertainment/public assembly | Other - Recreation | | |
| 34 | Entertainment/public assembly | Other - Stadium | | |
| 35 | Food sales and service | Bar/Nightclub | | |
| 36 | Food sales and service | Convenience Store with Gas Station | | |
| 37 | Food sales and service | Convenience Store without Gas Station | | |
| 38 | Food sales and service | Fast Food Restaurant | | |
| 39 | Food sales and service | Food Sales | Grocery/food market | |
| 40 | Food sales and service | Food Sales | Convenience store with gas | |
| 41 | Food sales and service | Food Sales | Convenience store | |
| 42 | Food sales and service | Food Sales | Other food sales | |
| 43 | Food sales and service | Food Service | Fast food | |
| 44 | Food sales and service | Food Service | Restaurant/cafeteria | |
| 45 | Food sales and service | Food Service | Other food service | |
| 46 | Food sales and service | Restaurant | | |
| 47 | Food sales and service | Supermarket/Grocery Store | | |
| 48 | Food sales and service | Wholesale Club/Supercenter | | |
| 49 | Food sales and service | Other - Restaurant/Bar | | |
| 50 | Healthcare | Ambulatory Surgical Center | | |
| 51 | Healthcare | Hospital (General Medical & Surgical)* | | |
| 52 | Healthcare | Medical Office | | 3 |
| 53 | Healthcare | Outpatient Rehabilitation/Physical Therapy | | |
| 54 | Healthcare | Residential Care Facility | | |
| 55 | Healthcare | Senior Care Community | | |
| 56 | Healthcare | Urgent Care/Clinic/Other Outpatient | | |
| 57 | Healthcare | Other - Specialty Hospital | | |
| 58 | Lodging/residential | Barracks | | |
| 59 | Lodging/residential | Hotel | Hotel | |
| 60 | Lodging/residential | Hotel | Motel or inn | |
| 61 | Lodging/residential | Multifamily Housing | | |
| 62 | Lodging/residential | Prison/Incarceration | | |

| Building Activity Type ^{1,2} | | | | |
|---------------------------------------|-------------------------|---|-----------------------------|-------|
| No. | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | Notes |
| 63 | Lodging/residential | Residence Hall/Dormitory | | |
| 64 | Lodging/residential | Residential Care Facility | | |
| 65 | Lodging/residential | Senior Care Community | | |
| 66 | Lodging/residential | Other - Lodging/Residential | | |
| 67 | Mixed use | Mixed Use Property | | 4 |
| 68 | Office | Medical Office | | 3 |
| 69 | Office | Office | Admin/professional office | |
| 70 | Office | Office | Bank/other financial | |
| 71 | Office | Office | Government office | |
| 72 | Office | Office | Medical office (diagnostic) | 3 |
| 73 | Office | Office | Other office | |
| 74 | Office | Veterinary Office | | |
| 75 | Office | Other - Office | | |
| 76 | Public services | Courthouse | | |
| 77 | Public services | Fire Station | | |
| 78 | Public services | Library | | |
| 79 | Public services | Mailing Center/Post Office | | |
| 80 | Public services | Police Station | | |
| 81 | Public services | Prison/Incarceration | | |
| 82 | Public services | Social/Meeting Hall | | |
| 83 | Public services | Transportation Terminal/Station | | |
| 84 | Public services | Other - Public Service | | |
| 85 | Religious worship | Worship Facility | | |
| 86 | Retail | Automobile Dealership | | |
| 87 | Retail | Convenience Store with Gas Station | | |
| 88 | Retail | Convenience Store without Gas Station | | |
| 89 | Retail | Enclosed Mall | | 5 |
| 90 | Retail | Lifestyle Center | Enclosed mall | 5 |
| 91 | Retail | Lifestyle Center | Other retail | |
| 92 | Retail | Lifestyle Center | Retail store | |
| 93 | Retail | Lifestyle Center | | 4 |
| 94 | Retail | Retail Store | | |
| 95 | Retail | Strip Mall | | 4 |
| 96 | Retail | Supermarket/Grocery Store | | |
| 97 | Retail | Wholesale Club/Supercenter | | |
| 98 | Retail | Other - Retail/Mall | Enclosed mall | 5 |
| 99 | Retail | Other - Retail/Mall | | 4 |
| 100 | Technology/science | Data Center | | 6 |
| 101 | Technology/science | Laboratory | | |
| 102 | Technology/science | Other - Technology/Science | Other service | |
| 103 | Services | Personal Services (Health/Beauty, Dry Cleaning, etc.) | | |
| 104 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Repair shop | |

| Building Activity Type ^{1,2} | | | | |
|---------------------------------------|-------------------------|--|-----------------------------|-------|
| No. | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | Notes |
| 105 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Vehicle service/repair shop | |
| 106 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Vehicle storage/maintenance | |
| 107 | Services | Other - Services | | |
| 108 | Utility | Energy/Power Station | | 7 |
| 109 | Utility | Other - Utility | | 7 |
| 110 | Warehouse/storage | Self-Storage Facility | | |
| 111 | Warehouse/storage | Distribution Center | | |
| 112 | Warehouse/storage | Nonrefrigerated Warehouse | | |
| 113 | Warehouse/storage | Refrigerated Warehouse | | |

- Notes:
1. Select the most specific building activity type that applies.
 2. ((For building type definitions see Energy Star portfolio manager definitions except as follows:)) Building Activity Types are defined by AHJ in Table 7-4 and also include the following:
 - Data center: Is an activity space designed and equipped to meet the needs of high density computing equipment, such as server racks, used for data storage and processing, including dedicated uninterruptible power supplies and cooling systems and require a constant power load of 75 kW or more. *Gross floor area* shall only include space within the *building* including raised floor computing space, server rack aisles, storage silos, control console areas, battery rooms and mechanical rooms for dedicated cooling equipment. *Gross floor area* shall not include a server closet, telecommunications equipment closet, computer training area, office, elevator, corridors, or other auxiliary space.
 - Urgent care center/clinic/other outpatient office means the *buildings* used to diagnose and treat patients, usually on an unscheduled, walk-in basis, who have an injury or illness that requires immediate care but is not serious enough to warrant a visit to an emergency department. Includes facilities that provide same-day surgical, diagnostic and preventive care.
 3. All medical offices considered to be diagnostic type.
 4. Must use of Section 7.2.3 method for mixed use *buildings*.
 5. Suggest considering use of Section 7.2.3 method for mixed use *buildings*.
 6. This is a *building* or activity without an energy target. Included to provide definition only.
 7. This is a *building* or activity without an energy target. This may be exempt from the standard, see Section Z4.1 2, d.

Table 7-2a Building Activity Site Energy Targets (EUI_t) (I-P Units)

| Building Activity Type ^{1,2} | | | | | Climate Zone 4C | Climate Zone 5B |
|---------------------------------------|-------------------------------|-----------------------------|--------------------------|-------|------------------|------------------|
| No. | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | Notes | EUI _t | EUI _t |
| 1 | Banking/financial services | Bank Branch | | | 69 | 71 |
| 2 | Banking/financial services | Financial Office | | | 69 | 71 |
| 3 | Education | Adult Education | | | 49 | 51 |
| 4 | Education | College/University | | 8, 9 | 102 | 102 |
| 5 | Education | K-12 School | Elementary/middle school | 9 | 49 | 50 |
| 6 | Education | K-12 School | High school | 9 | 48 | 49 |
| 7 | Education | Preschool/Daycare | | | 59 | 59 |
| 8 | Education | Vocational School | | | 49 | 51 |
| 9 | Education | Other - Education | | | 49 | 51 |
| 10 | Entertainment/public assembly | Aquarium | | | 55 | 59 |
| 11 | Entertainment/public assembly | Bar/Nightclub | | | 55 | 59 |
| 12 | Entertainment/public assembly | Bowling Alley | | | 73 | 78 |
| 13 | Entertainment/public assembly | Casino | | | 55 | 59 |
| 14 | Entertainment/public assembly | Convention Center | | | 50 | 52 |

| No. | Building Activity Type ^{1,2} | | | Notes | Climate Zone 4C | Climate Zone 5B |
|-----|---------------------------------------|---|-------------------------------|-------|-----------------------|-----------------------|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | EUI _t | EUI _t |
| 15 | Entertainment/public assembly | Fitness Center/Health Club/Gym | | | 73 | 78 |
| 16 | Entertainment/public assembly | Ice/Curling Rink | | | 73 | 78 |
| 17 | Entertainment/public assembly | Indoor Arena | | | 67 | 70 |
| 18 | Entertainment/public assembly | Movie Theater | | | 67 | 70 |
| 19 | Entertainment/public assembly | Museum | | | 67 | 70 |
| 20 | Entertainment/public assembly | Performing Arts | | | 55 | 59 |
| 21 | Entertainment/public assembly | Race Track | | | 67 | 70 |
| 22 | Entertainment/public assembly | Roller Rink | | | 73 | 78 |
| 23 | Entertainment/public assembly | Social/Meeting Hall | | | 50 | 52 |
| 24 | Entertainment/public assembly | Stadium (Closed) | | | 67 | 70 |
| 25 | Entertainment/public assembly | Stadium (Open) | | | 67 | 70 |
| 26 | Entertainment/public assembly | Swimming Pool | | | 73 | 78 |
| 27 | Entertainment/public assembly | Zoo | | | 55 | 59 |
| 28 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Entertainment/culture | | 67 | 70 |
| 29 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Library | | 56 | 59 |
| 30 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Other public assembly | | 55 | 59 |
| 31 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Recreation | | 73 | 78 |
| 32 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Social/meeting | | 50 | 52 |
| 33 | Entertainment/public assembly | Other - Recreation | | | 73 | 78 |
| 34 | Entertainment/public assembly | Other - Stadium | | | 67 | 70 |
| 35 | Food sales and service | Bar/Nightclub | | | 361 | 378 |
| 36 | Food sales and service | Convenience Store with Gas Station | | | ((244)) <u>260</u> | ((253)) <u>269</u> |
| 37 | Food sales and service | Convenience Store without Gas Station | | | ((260)) <u>244</u> | ((269)) <u>253</u> |
| 38 | Food sales and service | Fast Food Restaurant | | | 427 | 454 |
| 39 | Food sales and service | Food Sales | Grocery/food market | | 191 | 198 |
| 40 | Food sales and service | Food Sales | Convenience store with gas | | 260 | 269 |
| 41 | Food sales and service | Food Sales | Convenience store | | 244 | 253 |

| No. | Building Activity Type ^{1,2} | | | Notes | Climate Zone 4C | Climate Zone 5B |
|-----|---------------------------------------|--|-----------------------------|-------|-----------------------|-----------------------|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | EUI _t | EUI _t |
| 42 | Food sales and service | Food Sales | Other food sales | | 184 | 189 |
| 43 | Food sales and service | Food Service | Fast food | | 427 | 454 |
| 44 | Food sales and service | Food Service | Restaurant/cafeteria | | 361 | 378 |
| 45 | Food sales and service | Food Service | Other food service | | 293 | 308 |
| 46 | Food sales and service | Restaurant | | | 361 | 378 |
| 47 | Food sales and service | Supermarket/Grocery Store | | | 191 | 198 |
| 48 | Food sales and service | Wholesale Club/ Supercenter | | | 68 | 75 |
| 49 | Food sales and service | Other - Restaurant/Bar | | | 361 | 378 |
| 50 | Healthcare | Ambulatory Surgical Center | | | 90 | 96 |
| 51 | Healthcare | Hospital (General Medical & Surgical)* | | 9 | 215 | 215 |
| 52 | Healthcare | Medical Office | | 3 | | |
| 53 | Healthcare | Outpatient Rehabilitation/Physical Therapy | | | 90 | 96 |
| 54 | Healthcare | Residential Care Facility | | | 78 | 82 |
| 55 | Healthcare | Senior Care Community | | | 78 | 82 |
| 56 | Healthcare | Urgent Care/Clinic/ Other Outpatient | | | 90 | 96 |
| 57 | Healthcare | Other - Specialty Hospital | | | 196 | 196 |
| 58 | Lodging/residential | Barracks | | | 88 | 90 |
| 59 | Lodging/residential | Hotel | Hotel | | 68 | 72 |
| 60 | Lodging/residential | Hotel | Motel or inn | | 74 | 77 |
| 61 | Lodging/residential | Multifamily Housing | | | 32 | 33 |
| 62 | Lodging/residential | Prison/Incarceration | | 9 | 101 | 106 |
| 63 | Lodging/residential | Residence Hall/ Dormitory | | | 88 | 90 |
| 64 | Lodging/residential | Residential Care Facility | | | 78 | 82 |
| 65 | Lodging/residential | Senior Care Community | | | 78 | 82 |
| 66 | Lodging/residential | Other - Lodging/ Residential | | | 71 | 74 |
| 67 | Mixed use | Mixed Use Property | | 4 | | |
| 68 | Office | Medical Office | | 3 | 60 | 65 |
| 69 | Office | Office | Admin/professional office | | 63 | 66 |
| 70 | Office | Office | Bank/other financial | | 69 | 71 |
| 71 | Office | Office | Government office | | 66 | 69 |
| 72 | Office | Office | Medical office (diagnostic) | 3 | 60 | 65 |
| 73 | Office | Office | Other office | | 66 | 68 |
| 74 | Office | Veterinary Office | | | 90 | 96 |
| 75 | Office | Other - Office | | | 66 | 68 |

| No. | Building Activity Type ^{1,2} | | | Notes | Climate Zone 4C | Climate Zone 5B |
|-----|---------------------------------------|---|---------------------------------|-------|-----------------------|-----------------------|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | EUI _t | EUI _t |
| 76 | Public services | Courthouse | | | 101 | 106 |
| 77 | Public services | Fire Station | | | 65 | 68 |
| 78 | Public services | Library | | | 56 | 59 |
| 79 | Public services | Mailing Center/Post Office | | | 51 | 54 |
| 80 | Public services | Police Station | | | 65 | 68 |
| 81 | Public services | Prison/Incarceration | | 9 | 101 | 106 |
| 82 | Public services | Social/Meeting Hall | | | 50 | 52 |
| 83 | Public services | Transportation Terminal/ Station | | | 55 | 59 |
| 84 | Public services | Other - Public Service | | | 66 | 69 |
| 85 | Religious worship | Worship Facility | | | 39 | 42 |
| 86 | Retail | Automobile Dealership | | | 59 | 66 |
| 87 | Retail | Convenience Store with Gas Station | | | 260 | 269 |
| 88 | Retail | Convenience Store without Gas Station | | | 244 | 253 |
| 89 | Retail | Enclosed Mall | | 5 | 58 | 64 |
| 90 | Retail | Lifestyle Center | Enclosed mall | 5 | 58 | 64 |
| 91 | Retail | Lifestyle Center | Other retail | | 55 | 62 |
| 92 | Retail | Lifestyle Center | Retail store | | 68 | 75 |
| 93 | Retail | Lifestyle Center | | 4 | | |
| 94 | Retail | Retail Store | | | 68 | 75 |
| 95 | Retail | Strip Mall | | 4 | | |
| 96 | Retail | Supermarket/Grocery Store | | | 191 | 198 |
| 97 | Retail | Wholesale Club/ Supercenter | | | 68 | 75 |
| 98 | Retail | Other - Retail/Mall | Enclosed mall | 5 | 58 | 64 |
| 99 | Retail | Other - Retail/Mall | | 4 | | |
| 100 | Technology/science | Data Center | | 6 | | |
| 101 | Technology/science | Laboratory | | | 237 | 249 |
| 102 | Technology/science | Other - Technology/ Science | Other service | | 66 | 69 |
| 103 | Services | Personal Services (Health/Beauty, Dry Cleaning, etc.) | | | 66 | 69 |
| 104 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Repair shop | | 36 | 39 |
| 105 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Vehicle service/repair shop | | 60 | 64 |
| 106 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Vehicle storage/ maintenance | | 41 | 44 |
| 107 | Services | Other - Services | | | 66 | 69 |

| No. | Building Activity Type ^{1,2} | | | Notes | Climate Zone 4C | Climate Zone 5B |
|-----|---------------------------------------|-----------------------------|---------------------|-------|------------------|------------------|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | EUI _t | EUI _t |
| 108 | Utility | Energy/Power Station | | 7 | | |
| 109 | Utility | Other - Utility | | 7 | | |
| 110 | Warehouse/storage | Self-Storage Facility | | | 36 | 44 |
| 111 | Warehouse/storage | Distribution Center | | | 36 | 44 |
| 112 | Warehouse/storage | Nonrefrigerated Warehouse | | | 36 | 44 |
| 113 | Warehouse/storage | Refrigerated Warehouse | | | 121 | 126 |

- Notes:
1. Select the most specific building activity type that applies.
 2. ((For building type definitions see Energy Star portfolio manager definitions except as follows:)) Building Activity Types are defined by AHJ in Table 7-4 and also include the following:
 - Data center: Is an activity space designed and equipped to meet the needs of high density computing equipment, such as server racks, used for data storage and processing, including dedicated uninterruptible power supplies and cooling systems and require a constant power load of 75 kW or more. *Gross floor area* shall only include space within the *building* including raised floor computing space, server rack aisles, storage silos, control console areas, battery rooms and mechanical rooms for dedicated cooling equipment. *Gross floor area* shall not include a server closet, telecommunications equipment closet, computer training area, office, elevator, corridors, or other auxiliary space.
 - Urgent care center/clinic/other outpatient office means the *buildings* used to diagnose and treat patients, usually on an unscheduled, walk-in basis, who have an injury or illness that requires immediate care but is not serious enough to warrant a visit to an emergency department. Includes facilities that provide same-day surgical, diagnostic and preventive care.
 3. All medical offices considered to be diagnostic type.
 4. Must use of Section 7.2.3 method for mixed use *buildings*.
 5. Suggest considering use of Section 7.2.3 method for mixed use *buildings*.
 6. This is a *building* or activity without an energy target. Included to provide definition only.
 7. This is a *building* or activity without an energy target. This may be exempt from the standard, see Section Z4.1 2, d.
 8. Laboratories as defined by the college/university building activity type where the primary activity is for teaching practical science shall use the college/university building activity type target. College/university *buildings* with research laboratory building activities where the primary activities are of scientific research, measurement, and experiments are performed, can utilize building activity type 101 Laboratory for an area weighted EUI_t.
 9. Building activity type target developed at the campus-level and these *covered buildings* may comply at a campus-level with the EUI_t. "Campus-level" means a collection of all buildings with a single shared primary function that act as a single property.

Table 7-3 Building Operating Shifts Normalization Factor

| No. | Building Activity Type ^{1,2} | | | Notes | Weekly Hours ^{1,2} | | |
|-----|---------------------------------------|-----------------------------|--------------------------|-------|-----------------------------|-----------|-----|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | 50 or less | 51 to 167 | 168 |
| 1 | Banking/financial services | Bank Branch | | 3 | 0.8 | 1.0 | 1.5 |
| 2 | Banking/financial services | Financial Office | | 3 | 0.8 | 1.0 | 1.5 |
| 3 | Education | Adult Education | | 4 | 0.9 | 1.1 | 1.9 |
| 4 | Education | College/University | | 4 | 0.9 | 1.1 | 1.9 |
| 5 | Education | K-12 School | Elementary/middle school | 4 | 0.9 | 1.1 | 1.9 |
| 6 | Education | K-12 School | High school | 4 | 0.9 | 1.1 | 1.9 |
| 7 | Education | Preschool/Daycare | | 4 | 0.9 | 1.1 | 1.9 |
| 8 | Education | Vocational School | | 4 | 0.9 | 1.1 | 1.9 |
| 9 | Education | Other - Education | | 4 | 0.9 | 1.1 | 1.9 |
| 10 | Entertainment/public assembly | Aquarium | | 4 | 0.6 | 1.1 | 1.6 |
| 11 | Entertainment/public assembly | Bar/Nightclub | | 4 | 0.6 | 1.1 | 1.6 |
| 12 | Entertainment/public assembly | Bowling Alley | | 4 | 0.6 | 1.1 | 1.6 |
| 13 | Entertainment/public assembly | Casino | | 4 | 0.6 | 1.1 | 1.6 |
| 14 | Entertainment/public assembly | Convention Center | | 4 | 0.6 | 1.1 | 1.6 |

| No. | Building Activity Type ^{1,2} | | | Notes | Weekly Hours ^{1,2} | | |
|-----|---------------------------------------|---|-------------------------------|-------|-----------------------------|-----------|-----|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | 50 or less | 51 to 167 | 168 |
| 15 | Entertainment/public assembly | Fitness Center/Health Club/Gym | | 4 | 0.6 | 1.1 | 1.6 |
| 16 | Entertainment/public assembly | Ice/Curling Rink | | 4 | 0.6 | 1.1 | 1.6 |
| 17 | Entertainment/public assembly | Indoor Arena | | 4 | 0.6 | 1.1 | 1.6 |
| 18 | Entertainment/public assembly | Movie Theater | | 4 | 0.6 | 1.1 | 1.6 |
| 19 | Entertainment/public assembly | Museum | | 4 | 0.6 | 1.1 | 1.6 |
| 20 | Entertainment/public assembly | Performing Arts | | 4 | 0.6 | 1.1 | 1.6 |
| 21 | Entertainment/public assembly | Race Track | | 4 | 0.6 | 1.1 | 1.6 |
| 22 | Entertainment/public assembly | Roller Rink | | 4 | 0.6 | 1.1 | 1.6 |
| 23 | Entertainment/public assembly | Social/Meeting Hall | | 4 | 0.6 | 1.1 | 1.6 |
| 24 | Entertainment/public assembly | Stadium (Closed) | | 4 | 0.6 | 1.1 | 1.6 |
| 25 | Entertainment/public assembly | Stadium (Open) | | 4 | 0.6 | 1.1 | 1.6 |
| 26 | Entertainment/public assembly | Swimming Pool | | 4 | 0.6 | 1.1 | 1.6 |
| 27 | Entertainment/public assembly | Zoo | | 4 | 0.6 | 1.1 | 1.6 |
| 28 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Entertainment/culture | 4 | 0.6 | 1.1 | 1.6 |
| 29 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Library | 4 | 0.6 | 1.1 | 1.6 |
| 30 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Other public assembly | 4 | 0.6 | 1.1 | 1.6 |
| 31 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Recreation | 4 | 0.6 | 1.1 | 1.6 |
| 32 | Entertainment/public assembly | Other - Entertainment/ Public Assembly | Social/meeting | 4 | 0.6 | 1.1 | 1.6 |
| 33 | Entertainment/public assembly | Other - Recreation | | 4 | 0.6 | 1.1 | 1.6 |
| 34 | Entertainment/public assembly | Other - Stadium | | 4 | 0.6 | 1.1 | 1.6 |
| 35 | Food sales and service | Bar/Nightclub | | 4 | 0.6 | 1.1 | 1.5 |
| 36 | Food sales and service | Convenience Store with Gas Station | | 4 | 0.5 | 0.9 | 1.3 |
| 37 | Food sales and service | Convenience Store without Gas Station | | 4 | 0.5 | 0.9 | 1.3 |
| 38 | Food sales and service | Fast Food Restaurant | | 4 | 0.6 | 1.1 | 1.5 |
| 39 | Food sales and service | Food Sales | Grocery/food market | 4 | 0.5 | 0.9 | 1.3 |
| 40 | Food sales and service | Food Sales | Convenience store with gas | 4 | 0.5 | 0.9 | 1.3 |
| 41 | Food sales and service | Food Sales | Convenience store | 4 | 0.5 | 0.9 | 1.3 |
| 42 | Food sales and service | Food Sales | Other food sales | 4 | 0.5 | 0.9 | 1.3 |

| No. | Building Activity Type ^{1,2} | | | Notes | Weekly Hours ^{1,2} | | |
|-----|---------------------------------------|--|-----------------------------|-------|-----------------------------|----------------|-------------------|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | 50 or less | 51 to 167 | 168 |
| 43 | Food sales and service | Food Service | Fast food | 4 | 0.6 | 1.1 | 1.5 |
| 44 | Food sales and service | Food Service | Restaurant/cafeteria | 4 | 0.6 | 1.1 | 1.5 |
| 45 | Food sales and service | Food Service | Other food service | 4 | 0.6 | 1.1 | 1.5 |
| 46 | Food sales and service | Restaurant | | 4 | 0.6 | 1.1 | 1.5 |
| 47 | Food sales and service | Supermarket/Grocery Store | | 4 | 0.5 | 0.9 | 1.3 |
| 48 | Food sales and service | Wholesale Club/Supercenter | | 4 | 0.6 | 1.0 | 1.5 |
| 49 | Food sales and service | Other - Restaurant/Bar | | 4 | 0.6 | 1.1 | 1.5 |
| 50 | Healthcare | Ambulatory Surgical Center | | 4,7 | 0.8 | 1.1 | 1.3 |
| 51 | Healthcare | Hospital (General Medical & Surgical)* | | | 1.0 | 1.0 | 1.0 |
| 52 | Healthcare | Medical Office | | 4,7 | ((0.8 | 1.0 | 1.5)) |
| 53 | Healthcare | Outpatient Rehabilitation/Physical Therapy | | 4,7 | 0.8 | 1.1 | 1.3 |
| 54 | Healthcare | Residential Care Facility | | | 1.0 | 1.0 | 1.0 |
| 55 | Healthcare | Senior Care Community | | | 1.0 | 1.0 | 1.0 |
| 56 | Healthcare | Urgent Care/Clinic/Other Outpatient | | 4,7 | 0.8 | 1.1 | 1.3 |
| 57 | Healthcare | Other - Specialty Hospital | | | 1.0 | 1.0 | 1.0 |
| 58 | Lodging/residential | Barracks | | | 1.0 | 1.0 | 1.0 |
| 59 | Lodging/residential | Hotel | Hotel | | 1.0 | 1.0 | 1.0 |
| 60 | Lodging/residential | Hotel | Motel or inn | | 1.0 | 1.0 | 1.0 |
| 61 | Lodging/residential | Multifamily Housing | | | 1.0 | 1.0 | 1.0 |
| 62 | Lodging/residential | Prison/Incarceration | | | 1.0 | 1.0 | 1.0 |
| 63 | Lodging/residential | Residence Hall/Dormitory | | | 1.0 | 1.0 | 1.0 |
| 64 | Lodging/residential | Residential Care Facility | | | 1.0 | 1.0 | 1.0 |
| 65 | Lodging/residential | Senior Care Community | | | 1.0 | 1.0 | 1.0 |
| 66 | Lodging/residential | Other - Lodging/Residential | | | 1.0 | 1.0 | 1.0 |
| 67 | Mixed use | Mixed Use Property | | 6 | | | |
| 68 | Office | Medical Office | | 4,7 | 0.8 | 1.1 | 1.3 |
| 69 | Office | Office | Admin/professional office | 3 | 0.8 | 1.0 | 1.5 |
| 70 | Office | Office | Bank/other financial | 3 | 0.8 | 1.0 | 1.5 |
| 71 | Office | Office | Government office | 3 | 0.8 | 1.0 | 1.5 |
| 72 | Office | Office | Medical office (diagnostic) | 4 | 0.8 | 1.1 | 1.3 |
| 73 | Office | Office | Other office | 3 | 0.8 | 1.0 | 1.5 |
| 74 | Office | Veterinary Office | | 3 | 0.8 | 1.1 | 1.3 |
| 75 | Office | Other - Office | | 3 | 0.8 | 1.0 | 1.5 |

| No. | Building Activity Type ^{1,2} | | | Notes | Weekly Hours ^{1,2} | | |
|-----|---------------------------------------|---|-----------------------------|-------|-----------------------------|-----------|-----|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | 50 or less | 51 to 167 | 168 |
| 76 | Public services | Courthouse | | 4 | 0.8 | 0.8 | 1.1 |
| 77 | Public services | Fire Station | | 3 | 0.8 | 0.8 | 1.1 |
| 78 | Public services | Library | | 4 | 0.6 | 1.1 | 1.6 |
| 79 | Public services | Mailing Center/Post Office | | 3 | 0.8 | 1.2 | 1.3 |
| 80 | Public services | Police Station | | 3 | 0.8 | 0.8 | 1.1 |
| 81 | Public services | Prison/Incarceration | | | 1.0 | 1.0 | 1.0 |
| 82 | Public services | Social/Meeting Hall | | 4 | 0.6 | 1.1 | 1.6 |
| 83 | Public services | Transportation Terminal/Station | | 4 | 0.6 | 1.1 | 1.6 |
| 84 | Public services | Other - Public Service | | 4 | 0.8 | 1.2 | 1.3 |
| 85 | Religious worship | Worship Facility | | 5 | 0.9 | 1.7 | 1.7 |
| 86 | Retail | Automobile Dealership | | 4 | 0.6 | 1.0 | 1.5 |
| 87 | Retail | Convenience Store with Gas Station | | 4 | 0.5 | 0.9 | 1.3 |
| 88 | Retail | Convenience Store without Gas Station | | 4 | 0.5 | 0.9 | 1.3 |
| 89 | Retail | Enclosed Mall | | 4 | 0.6 | 1.0 | 1.5 |
| 90 | Retail | Lifestyle Center | Enclosed mall | 4 | 0.6 | 1.0 | 1.5 |
| 91 | Retail | Lifestyle Center | Other retail | 4 | 0.6 | 1.0 | 1.5 |
| 92 | Retail | Lifestyle Center | Retail store | 4 | 0.6 | 1.0 | 1.5 |
| 93 | Retail | Lifestyle Center | | | | | |
| 94 | Retail | Retail Store | | 4 | 0.6 | 1.0 | 1.5 |
| 95 | Retail | Strip Mall | | | | | |
| 96 | Retail | Supermarket/Grocery Store | | 4 | 0.5 | 0.9 | 1.3 |
| 97 | Retail | Wholesale Club/Supercenter | | 4 | 0.6 | 1.0 | 1.5 |
| 98 | Retail | Other - Retail/Mall | Enclosed mall | 4 | 0.6 | 1.0 | 1.5 |
| 99 | Retail | Other - Retail/Mall | | | | | |
| 100 | Technology/science | Data Center | | | | | |
| 101 | Technology/science | Laboratory | | 3 | 1.0 | 1.0 | 1.0 |
| 102 | Technology/science | Other - Technology/Science | Other service | 3 | 0.8 | 1.2 | 1.3 |
| 103 | Services | Personal Services (Health/Beauty, Dry Cleaning, etc.) | | 4 | 0.8 | 1.2 | 1.3 |
| 104 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Repair shop | 4 | 0.8 | 1.2 | 1.3 |
| 105 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Vehicle service/repair shop | 4 | 0.8 | 1.2 | 1.3 |
| 106 | Services | Repair Services (Vehicle, Shoe, Locksmith, etc.) | Vehicle storage/maintenance | 4 | 0.8 | 1.2 | 1.3 |
| 107 | Services | Other - Services | | 4 | 0.8 | 1.2 | 1.3 |
| 108 | Utility | Energy/Power Station | | | | | |
| 109 | Utility | Other - Utility | | | | | |

| No. | Building Activity Type ^{1,2} | | | Notes | Weekly Hours ^{1,2} | | |
|-----|---------------------------------------|-----------------------------|---------------------|-------|-----------------------------|-----------|-----|
| | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed | | 50 or less | 51 to 167 | 168 |
| 110 | Warehouse/storage | Self-Storage Facility | | 4 | 0.8 | 1.0 | 1.4 |
| 111 | Warehouse/storage | Distribution Center | | 3 | 0.8 | 1.0 | 1.4 |
| 112 | Warehouse/storage | Nonrefrigerated Warehouse | | 3 | 0.8 | 1.0 | 1.4 |
| 113 | Warehouse/storage | Refrigerated Warehouse | | 3,8 | 1.0 | 1.0 | 1.4 |

- Notes:
1. Do not count the hours when the property is occupied only by maintenance, security, the cleaning crew, or other support personnel. Do not count the hours when the property is occupied only by maintenance staff.
 2. Working hours are based on the average use over the 12-month period selected to document energy use in form C.
 3. The weekly hours are the total number of hours per week where the majority of workers are present. If there are two or more shifts of workers, add the hours. When developing targets using Section 7.2.3 for mixed use *buildings*, use the hours each separate activity, the hours per week the majority of workers are present.
 4. The weekly hours are the hours that be majority of the *building* is open to serve the public. When developing targets using Section 7.2.3 for mixed use *buildings*, the hours each separate activity is open to the public.
 5. The weekly hours the facility is open for operation, which may include worship services, choir practice, administrative use, committee meetings, classes, or other activities.
 6. Must use of Section 7.2.3 method for mixed use *buildings*.
 7. Health care *buildings* may use other weekly hours if they are required to operate *building* systems additional hours to protect patient and staff safety. Provide documentation of the requirement in the energy management plan.
 8. Refrigerated warehouse greater than 167 hours assumes the workers on shift are loading and/or unloading vehicles.

Table 7-4 Building Activity Type Definitions Table

| Building Activity Type ^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|--|----------------------------|-----------------------------|--|
| <p>Definitions are provided to define building activity types and the spaces within to include as <i>gross floor area</i>. Unless otherwise defined, <i>gross floor area</i> shall include all space within the <i>building</i> and not space outside the <i>building</i>, such as exterior/outside loading bays or docks, open air stairwells and breezeways and vehicle parking and parking garages. Definitions are not necessarily exclusive. For <i>Tier 1 covered buildings</i>, the <i>qualified person</i>, or for <i>Tier 2 covered buildings</i>, the <i>qualified energy manager</i> shall determine the <i>gross floor area</i> associated with each identified building activity type using industry standards guidance documents provided by the <i>AHJ</i>.</p> | | | |
| No. | Portfolio Manager Types | Portfolio Manager Sub-Types | Sub-Types: Detailed |
| <u>1</u> | Banking/financial services | Bank Branch | |
| | | | <p>Bank branch refers to a commercial banking outlet that offers banking services to walk-in customers.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including banking areas, vaults, lobbies, atriums, kitchens used by staff, restrooms, conference rooms, storage areas, stairways, and elevator shafts.</p> |
| <u>2</u> | Banking/financial services | Financial Office | |
| | | | <p>Financial office refers to <i>buildings</i> used for financial services such as bank headquarters and securities and brokerage firms.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, trading floors, conference rooms and auditoriums, vaults, restrooms, kitchens used by staff, lobbies, atriums, fitness areas for staff, storage areas, stairways, and elevator shafts.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> | |
|---|--|----------------------------|----------------------------------|--|--|
| 3 | <u>Education</u> | <u>Adult Education</u> | | | <p>Adult education refers to <i>buildings</i> used primarily for providing adult students with continuing education, workforce development, or professional development outside of the college or university setting.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including classrooms, administrative space, conference rooms, kitchens used by staff, lobbies, cafeterias, auditoriums, restrooms, stairways, atriums, elevator shafts, and storage areas.</p> |
| 4 | <u>Education</u> | <u>College/ University</u> | | 8, 9 | <p>College/university refers to <i>buildings</i> used for the purpose of higher education. This includes public and private colleges and universities.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including classrooms, libraries, laboratory classrooms, offices, cafeterias, maintenance facilities, arts facilities, athletic facilities, residential areas, storage rooms, restrooms, elevator shafts, and stairways.</p> |
| 5 | <u>Education</u> | <u>K-12 School</u> | <u>Elementary/ middle school</u> | 9 | <p>K-12 school refers to <i>buildings</i> or campuses used as a school for kindergarten through 12th grade students. This does not include college or university classroom facilities/laboratories, vocational, technical, trade, adult, or continuing education schools, preschools, or day care facilities. If the school serves any of the above student populations (e.g., an elementary school that includes prekindergarten), at least 75 percent of the students must be in grades kindergarten through 12.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including classrooms, libraries, administrative space, conference rooms, restrooms, kitchens used by staff, lobbies, cafeterias, gymnasiums, auditoriums, laboratory classrooms, portable classrooms, greenhouses, stairways, atriums, elevator shafts, small landscaping sheds, and storage areas.</p> |
| 6 | <u>Education</u> | <u>K-12 School</u> | <u>High School</u> | 9 | |
| 7 | <u>Education</u> | <u>Preschool/ Daycare</u> | | | <p>Preschool/daycare applies to <i>buildings</i> used for educational programs or daytime supervision/recreation for young children before they attend kindergarten.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including classrooms, libraries, administrative space, conference rooms, restrooms, kitchens used by staff, lobbies, cafeterias, gymnasiums, auditoriums, stairways, elevator shafts, and storage areas.</p> |

| | Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|----|---|--------------------------|--------------|---|
| 8 | <u>Education</u> | <u>Vocational School</u> | | <p>Vocational school refers to <i>buildings</i> primarily designed to teach skilled trades to students, including trade and technical schools. Typically, vocational schools are commonly post-secondary education, consisting of 1-2 years of technical/trade training.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including classrooms, libraries, administrative space, conference rooms, restrooms, kitchens used by staff, lobbies, cafeterias, gymnasiums, auditoriums, laboratory classrooms, stairways, elevator shafts, and storage areas.</p> |
| 9 | <u>Education</u> | <u>Other - Education</u> | | <p>Other – Education refers to <i>buildings</i> used for religious, community, or other educational purposes that do not meet the definition of any other building activity type defined in Table 7-4 (i.e., educational purposes other than adult education, college/university, K-12 school, preschool/daycare and vocational schools).</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including classrooms, libraries, administrative space, conference rooms, restrooms, kitchens used by staff, lobbies, cafeterias, auditoriums, laboratory classrooms, stairways, elevator shafts, and storage areas.</p> |
| 10 | <u>Entertainment/ public assembly</u> | <u>Aquarium</u> | | <p>Aquarium refers to <i>buildings</i> used to provide aquatic habitat primarily to live animals and which may include public or private viewing areas and educational programs.</p> <p><i>Gross floor area</i> should include public and restricted areas such as visitor walkways, tank space, retail areas, restaurants, restrooms, laboratories, classrooms, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> |
| 11 | <u>Entertainment/ public assembly</u> | <u>Bar/Nightclub</u> | | <p>Bar/nightclub refers to <i>buildings</i> used primarily for social/entertainment purposes and is characterized by most of the revenue being generated from the sale of beverages instead of food.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including standing/seating areas, stage/dressing room areas, food/drink preparation or kitchen areas, retail areas, restrooms, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> <p>Properties whose primary business revenue is generated from the sale of food should be entered using one of the restaurant building activity types, even if there is a bar.</p> |

| | Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|----|---|--|--------------|--|
| 12 | <u>Entertainment/ public assembly</u> | <u>Bowling Alley</u> | | <p>Bowling alley refers to <i>buildings</i> used for public or private, recreational or professional bowling.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including bowling lanes, concession areas, restrooms, party rooms, retail areas, administrative/office space, employee break rooms, storage areas, and mechanical rooms.</p> |
| 13 | <u>Entertainment/ public assembly</u> | <u>Casino</u> | | <p>Casino refers to <i>buildings</i> primarily used to conduct gambling activities including both electronic and live table games.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including the main casino floor/gaming area, restaurants/bars, retail areas, administrative/office space, restrooms, mechanical rooms, storage areas, elevator shafts, and stairwells. If your casino is in the same <i>building</i> as a hotel, enter a separate hotel building activity type.</p> |
| 14 | <u>Entertainment/ public assembly</u> | <u>Convention Center</u> | | <p>Convention center refers to <i>buildings</i> used primarily for large conferences, exhibitions, and similar events. Convention centers may include a diverse variety of spaces, including large exhibition halls, meeting rooms, and concession stands.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including exhibit halls, preparation and staging areas, meeting rooms, concession stands, offices, restrooms, break rooms, security areas, elevator shafts, and stairwells.</p> <p>Conference facilities located within a hotel should be included along with your hotel building activity type details, rather than added as a separate convention center building activity type. Conference facilities primarily serving smaller meetings should be entered as social/meeting hall.</p> |
| 15 | <u>Entertainment/ public assembly</u> | <u>Fitness Center/ Health Club/Gym</u> | | <p>Fitness center/health club/gym refers to <i>buildings</i> used for recreational or professional athletic training and related activities.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including weight and cardio equipment areas, personal training areas, courts, locker rooms, restrooms, sauna and spa areas, retail areas, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> |

| | Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|----|---|-------------------------|--------------|---|
| 16 | <u>Entertainment/ public assembly</u> | <u>Ice/Curling Rink</u> | | <p><u>Ice/curling rink</u> refers to <i>buildings</i> that include one or more ice sheets used for public or private, recreational or professional skating, hockey, or ringette.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including ice area, spectator areas, concession stands, retail areas, locker rooms, restrooms, administrative/office areas, employee break rooms, mechanical rooms, and storage areas. Larger facilities primarily serving professional or collegiate functions and with significant spectator seating (above 5,000 seats) should be entered as indoor arena.</p> |
| 17 | <u>Entertainment/ public assembly</u> | <u>Indoor Arena</u> | | <p><u>Indoor arena</u> refers to enclosed structures used for professional or collegiate sports and entertainment events. Examples of events held in indoor arenas include basketball and hockey games, circus performances, and concerts. Indoor arenas usually have capacities of 5,000 seats or more and are often characterized by multiple concourses and concession areas.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including court/rink space, all concourse space on which workers or guests can walk, concession areas, retail stores, restaurants, administrative/office areas, restrooms, employee break rooms, kitchens, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> |
| 18 | <u>Entertainment/ public assembly</u> | <u>Movie Theater</u> | | <p><u>Movie theater</u> refers to <i>buildings</i> used for public or private film screenings.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including seating areas, lobbies, concession stands, restrooms, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> |
| 19 | <u>Entertainment/ public assembly</u> | <u>Museum</u> | | <p><u>Museum</u> refers to <i>buildings</i> that display collections to outside visitors for public viewing and enjoyment and for informational/educational purposes.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including public collection display areas, meeting rooms, classrooms, gift shops, food service areas, restrooms, administrative/office space, mechanical rooms, storage areas for collections, elevator shafts, and stairwells.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|-----------|--|--------------------------------|---------------------|---|
| <u>20</u> | <u>Entertainment/ public assembly</u> | <u>Performing Arts</u> | | <p>Performing arts refers to <i>buildings</i> used for public or private artistic or musical performances.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including seating, stage and backstage areas, food service areas, restrooms, retail areas, rehearsal studios, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> |
| <u>21</u> | <u>Entertainment/ public assembly</u> | <u>Race Track</u> | | <p>Race track refers to <i>buildings</i> used primarily to hold racing events such as vehicle races, track/field races, horse races, and/or dog-races.</p> <p><i>Gross floor area</i> should include all spectator viewing areas, concourse space on which workers or guests can walk, concession areas, retail stores, restaurants, restrooms, administrative/office areas, employee break rooms, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> <p>The footprint of the race track itself should also be included in the <i>gross floor area</i>, along with the footprint of any staging areas.</p> |
| <u>22</u> | <u>Entertainment/ public assembly</u> | <u>Roller Rink</u> | | <p>Roller rink refers to <i>buildings</i> used primarily for roller-skating, inline skating/rollerblading, or skateboarding.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including the rink space, concession areas, restrooms, locker rooms, retail areas, administrative/office areas, employee break rooms, mechanical rooms, and storage areas.</p> |
| <u>23</u> | <u>Entertainment/ public assembly</u> | <u>Social/Meeting Hall</u> | | <p>Social/meeting hall refers to <i>buildings</i> primarily used for public or private gatherings. This may include community group meetings, seminars, workshops, or performances. Please note that there is another building activity type available, <u>convention center</u>, for large exhibition and conference facilities.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including meeting rooms, auditoriums, food service areas, restrooms, lobbies, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> |

| | Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|-----------|---|---|-----------------------------------|--|
| <u>24</u> | <u>Entertainment/ public assembly</u> | <u>Stadium (Closed)</u> | | <p>Stadium (closed) refers to structures with a permanent or retractable roof which are used primarily for professional or collegiate sports and entertainment events. Examples of events held in closed stadiums include baseball and football games, and concerts. Closed stadiums usually have capacities of 25,000 seats or more and are often characterized by multiple concourses and concession areas.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including concourse space on which workers or guests can walk, concession areas, retail stores, restaurants, administrative/office areas, restrooms, employee break rooms, kitchens, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> <p>The footprint of the playing field should also be included in the <i>gross floor area</i>.</p> |
| <u>25</u> | <u>Entertainment/ public assembly</u> | <u>Stadium (Open)</u> | | <p>Stadium (open) refers to structures used primarily for professional or collegiate sports and entertainment events in which the playing field is not covered and is exposed to the outside. Examples of events held in open stadiums include baseball, football, and soccer games, and concerts. Open stadiums usually have capacities of 5,000 seats or more and are often characterized by multiple concourses and concession areas.</p> <p><i>Gross floor area</i> should include all space including concourse space on which workers or guests can walk, concession areas, retail stores, restaurants, administrative/office areas, restrooms, employee break rooms, kitchens, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> <p>The footprint of the playing field should also be included in the <i>gross floor area</i>.</p> |
| <u>26</u> | <u>Entertainment/ public assembly</u> | <u>Swimming Pool</u> | | Swimming pool refers to any heated swimming pools located inside a <i>building</i> . |
| <u>27</u> | <u>Entertainment/ public assembly</u> | <u>Zoo</u> | | <p>Zoo refers to <i>buildings</i> used primarily to provide habitat to live animals and which may include public or private viewing and educational programs.</p> <p><i>Gross floor area</i> should include all space within all fully enclosed <i>buildings</i>, including habitats, visitor viewing areas, theaters, classrooms, food service areas, restrooms, retail stores, veterinary offices, exhibit space, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells.</p> |
| <u>28</u> | <u>Entertainment/ public assembly</u> | <u>Other - Entertainment/ Public Assembly</u> | <u>Entertainment/ culture</u> | Entertainment/culture refers to <i>buildings</i> providing entertainment and/or cultural services that do not meet the definition of any other building activity type defined in Table 7-4. |

| Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|---|---|--|--|
| 29 | <u>Entertainment/ public assembly</u> | Other - <u>Entertainment/ Public Assembly</u> | <u>Library</u> Library refers to <i>buildings</i> used to store and manage collections of literary and artistic materials such as books, periodicals, newspapers, films, etc. that can be used for reference or lending. <i>Gross floor area</i> should include all space within the <i>building</i> , including circulation rooms, storage areas, reading/study rooms, administrative space, kitchens used by staff, lobbies, conference rooms and auditoriums, fitness areas for staff, restrooms, storage areas, stairways, and elevator shafts. |
| 30 | <u>Entertainment/ public assembly</u> | Other - <u>Entertainment/ Public Assembly</u> | <u>Other public assembly</u> Other public assembly refers to <i>buildings</i> primarily used for entertainment or public gatherings that do not meet the definition of any other building activity type defined in Table 7-4. <i>Gross floor area</i> should include all space within the <i>building</i> , including entertainment areas, administrative areas, and supporting areas such as storage rooms, hallways, restrooms, stairways, and maintenance areas. |
| 31 | <u>Entertainment/ public assembly</u> | Other - <u>Entertainment/ Public Assembly</u> | <u>Recreation</u> Recreation refers to <i>buildings</i> primarily used for recreation that do not meet the definition of any other building activity type defined in Table 7-4. <i>Gross floor area</i> should include all space within the <i>building</i> , including recreational areas, restrooms, and supporting activities such as mechanical rooms, storage areas, elevator shafts, and stairwells. |
| 32 | <u>Entertainment/ public assembly</u> | Other - <u>Entertainment/ Public Assembly</u> | <u>Social/meeting</u> Social/meeting hall refers to <i>buildings</i> primarily used for public or private gatherings. This may include community group meetings, seminars, workshops, or performances. Please note that there is another building activity type available, convention center, for large exhibition and conference facilities. <i>Gross floor area</i> should include all space within the <i>building</i> , including meeting rooms, auditoriums, food service areas, restrooms, lobbies, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells. |
| 33 | <u>Entertainment/ public assembly</u> | Other - <u>Recreation</u> | <u>Other - Recreation</u> refers to <i>buildings</i> primarily used for recreation that do not meet the definition of any other building activity type defined in Table 7-4. <i>Gross floor area</i> should include all space within the <i>building</i> , including recreational areas, restrooms, and supporting activities such as mechanical rooms, storage areas, elevator shafts, and stairwells. |

| Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|---|--------------------------------------|--|--|
| 34 | <u>Entertainment/public assembly</u> | <u>Other - Stadium</u> | <p><u>Other - Stadium</u> refers to <i>buildings</i> primarily used for sporting events that do not meet the definition of any other building activity type defined in Table 7-4.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including areas for athletic activity and spectator seating, restrooms, and supporting activities such as mechanical rooms, storage areas, elevator shafts, and stairwells.</p> |
| 35 | <u>Food sales and service</u> | <u>Bar/Nightclub</u> | <p><u>Bar/nightclub</u> refers to <i>buildings</i> used primarily for preparation and sale of ready-to-eat food and beverages, but with secondary purposes characterized by revenue generated from social/entertainment services and associated sale of beverages instead of food. Examples include restaurants with lounges and nightclubs featuring entertainment together or separate from dining.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including kitchens, sales areas, dining areas, offices, restrooms, staff break rooms, and storage areas.</p> |
| 36 | <u>Food sales and service</u> | <u>Convenience Store with Gas Station</u> | <p><u>Convenience store with gas station</u> refers to <i>buildings</i> that are colocated with gas stations and are used for the sale of a limited range of items such as groceries, toiletries, newspapers, soft drinks, tobacco products, and other everyday items. <u>Convenience store with gas station</u> may include space for vehicle servicing and repair.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including sales floors, offices, restrooms, staff break rooms, storage areas, and vehicle repair areas.</p> |
| 37 | <u>Food sales and service</u> | <u>Convenience Store without Gas Station</u> | <p><u>Convenience store without gas station</u> refers to <i>buildings</i> used for the sale of a limited range of items such as groceries, toiletries, newspapers, soft drinks, tobacco products, and other everyday items, which are not colocated with a gas station.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including sales floors, offices, restrooms, staff break rooms, and storage areas.</p> |
| 38 | <u>Food sales and service</u> | <u>Fast Food Restaurant</u> | <p><u>Fast food restaurant</u>, also known as quick service restaurant, refers to <i>buildings</i> used for the preparation and sale of ready-to-eat food. Fast food restaurants are characterized by a limited menu of food prepared quickly (often within a few minutes), and sometimes cooked in bulk in advance and kept hot.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including kitchens, sales areas, dining areas, offices, restrooms, staff break rooms, and storage areas.</p> |

| | Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|----|---|-------------------|--|---|
| 39 | <u>Food sales and service</u> | <u>Food Sales</u> | <u>Supermarket/ Grocery Store/ Food Market</u> | <p><u>Supermarket/grocery store/food market refers to buildings used for the retail sale of primarily food and beverage products, and which may include small amounts of preparation and sale of ready-to-eat food. Buildings where the primary business is the on-site preparation and sale of ready-to-eat food should use one of the restaurant building activity types.</u></p> <p><u>Gross floor area should include all space within the building, including the sales floor, offices, storage areas, kitchens, restrooms, staff break rooms, and stairwells.</u></p> |
| 40 | <u>Food sales and service</u> | <u>Food Sales</u> | <u>Convenience store with gas</u> | <p><u>Convenience store with gas station refers to buildings that are colocated with gas stations and are used for the sale of a limited range of items such as groceries, toiletries, newspapers, soft drinks, tobacco products, and other everyday items. Convenience store with gas station may include space for vehicle servicing and repair.</u></p> <p><u>Gross floor area should include all space within the building, including sales floors, offices, restrooms, staff break rooms, storage areas, and vehicle repair areas.</u></p> |
| 41 | <u>Food sales and service</u> | <u>Food Sales</u> | <u>Convenience store</u> | <p><u>Convenience store without gas station refers to buildings used for the sale of a limited range of items such as groceries, toiletries, newspapers, soft drinks, tobacco products, and other everyday items, which are not colocated with a gas station.</u></p> <p><u>Gross floor area should include all space within the building, including sales floors, offices, restrooms, staff break rooms, and storage areas.</u></p> |
| 42 | <u>Food sales and service</u> | <u>Food Sales</u> | <u>Other food sales</u> | <p><u>Other food sales refers to buildings used for the sales of food on either a retail or wholesale basis, but which do not meet the definition of supermarket/grocery store/ food market, convenience store, or convenience store with gas stations. For example, specialty food sales like a cheese shop or butcher.</u></p> <p><u>Gross floor area should include all space within the building, including sales areas, storage areas, offices, kitchens, restrooms, and staff break rooms.</u></p> |

| Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|---|-------------------------------|----------------------------------|---|
| 43 | <u>Food sales and service</u> | <u>Food Sales</u> | <u>Fast Food</u> |
| | | | <p>Fast food restaurant, also known as quick service restaurant, refers to <i>buildings</i> used for the preparation and sale of ready-to-eat food. Fast food restaurants are characterized by a limited menu of food prepared quickly (often within a few minutes), and sometimes cooked in bulk in advance and kept hot.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including kitchens, sales areas, dining areas, offices, restrooms, staff break rooms, and storage areas.</p> |
| 44 | <u>Food sales and service</u> | <u>Food Sales</u> | <u>Restaurant/cafeteria</u> |
| | | | <p>Restaurant/cafeteria refers to <i>buildings</i> used for preparation and sale of ready-to-eat food and beverages, but which do not fit in the fast food building activity type. Examples include fast casual, casual, and fine dining restaurants.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including kitchens, sales areas, dining areas, offices, restrooms, staff break rooms, and storage areas.</p> |
| 45 | <u>Food sales and service</u> | <u>Food Sales</u> | <u>Other food service</u> |
| | | | <p>Other food service refers to <i>buildings</i> used for preparation and sale of food and beverages, but which do not meet the definition of restaurant or bar/nightclub. For example, a bakery or coffee shop.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including kitchens, sales areas, dining areas, offices, restrooms, staff break rooms, and storage areas.</p> |
| 46 | <u>Food sales and service</u> | <u>Restaurant</u> | |
| | | | <p>Restaurant refers to <i>buildings</i> used for preparation and sale of ready-to-eat food and beverages, but which do not fit in the fast food building activity type. Examples include fast casual, casual, and fine dining restaurants.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including kitchens, sales areas, dining areas, offices, restrooms, staff break rooms, and storage areas.</p> |
| 47 | <u>Food sales and service</u> | <u>Supermarket/Grocery Store</u> | |
| | | | <p>Supermarket/grocery store refers to <i>buildings</i> used for the retail sale of primarily food and beverage products, and which may include small amounts of preparation and sale of ready-to-eat food. <i>Buildings</i> where the primary business is the on-site preparation and sale of ready-to-eat food should use one of the restaurant building activity types.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including the sales floor, offices, storage areas, kitchens, restrooms, staff break rooms, and stairwells.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> | |
|-----------|--|--|---------------------|--|--|
| <u>48</u> | <u>Food sales and service</u> | <u>Wholesale Club/ Supercenter</u> | | | <p>Wholesale club/supercenter refers to <i>buildings</i> used to conduct the retail sale of a wide variety of merchandise, typically in bulk quantities. Merchandise may include food, clothing, office supplies, furniture, electronics, books, sporting goods, toys, and hardware.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including the sales floor, offices, storage areas, kitchens, restrooms, staff break rooms, elevators, and stairwells.</p> |
| <u>49</u> | <u>Food sales and service</u> | <u>Other - Restaurant/Bar</u> | | | <p>Other - Restaurant/bar refers to <i>buildings</i> used for preparation and sale of ready-to-eat food and beverages, but which does not fit into the fast food restaurant, restaurant, or bar/nightclub building activity types.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including kitchens, sales areas, dining areas, restrooms, staff break rooms, and storage areas.</p> |
| <u>50</u> | <u>Health care</u> | <u>Ambulatory Surgical Center</u> | | | <p>Ambulatory surgical centers refers to health care facilities that provide same-day surgical care, including diagnostic and preventive procedures.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, operating and recovery rooms, waiting rooms, restrooms, employee break rooms and kitchens, elevator shafts, stairways, mechanical rooms, and storage areas.</p> |
| <u>51</u> | <u>Health care</u> | <u>Hospital (General Medical & Surgical)</u> | | 9 | <p>Hospital refers to a general medical and surgical hospital (including critical access hospitals and children's hospitals). These facilities provide acute care services intended to treat patients for short periods of time, including emergency medical care, physician's office services, diagnostic care, ambulatory care, surgical care, and limited specialty services such as rehabilitation and cancer care. The definition of hospital accounts for all space types owned by the hospital that are located within the hospital <i>building/complex</i>, including nonclinical spaces such as administrative offices, food service, retail, hotels, and power plant.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i> on the campus including operating rooms, bedrooms, emergency treatment areas, and medical offices, exam rooms, laboratories, lobbies, atriums, cafeterias, restrooms, stairways, corridors connecting <i>buildings</i>, storage areas, and elevator shafts.</p> |
| <u>52</u> | <u>Health care</u> | <u>Medical Office</u> | | 3 | <p>All medical offices considered to be diagnostic type.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|----|--|---|---------------------|---|
| 53 | <u>Health care</u> | <u>Outpatient Rehabilitation/Physical Therapy</u> | | <p><u>Outpatient rehabilitation/physical therapy offices refers to <i>buildings</i> used to provide diagnosis and treatment for rehabilitation and physical therapy.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, exam rooms, waiting rooms, indoor pool areas, atriums, employee break rooms and kitchens, restrooms, elevator shafts, stairways, mechanical rooms, and storage areas.</u></p> |
| 54 | <u>Health care</u> | <u>Residential Care Facility</u> | | <p><u>Residential care facilities refers to <i>buildings</i> that provide rehabilitative and restorative care to patients on a long-term or permanent basis. Residential care facilities treat mental health issues, substance abuse, and rehabilitation for injury, illness, and disabilities. This building activity type is intended for facilities that offer long-term residential care to residents of all ages who may need assistance with activities of daily living. If a facility is designed to provide nursing and assistance to seniors only, then the senior care community building activity type should be used.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including individual rooms or units, wellness centers, exam rooms, community rooms, small shops or service areas for residents and visitors (e.g., hair salons, convenience stores), staff offices, lobbies, atriums, cafeterias, kitchens, restrooms, storage areas, hallways, basements, stairways, corridors between <i>buildings</i>, and elevator shafts.</u></p> |
| 55 | <u>Health care</u> | <u>Senior Care Community</u> | | <p><u>Senior care community refers to <i>buildings</i> that house and provide care and assistance for elderly residents.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including individual rooms or units, wellness centers, exam rooms, community rooms, small shops or service areas for residents and visitors (e.g., hair salons, convenience stores), staff offices, lobbies, atriums, cafeterias, kitchens, restrooms, storage areas, hallways, basements, stairways, corridors between <i>buildings</i>, and elevator shafts.</u></p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|----|--|--|---------------------|--|
| 56 | <u>Health care</u> | <u>Urgent Care/Clinic/Other Outpatient</u> | | <p><u>Urgent care center/clinic/other outpatient office refers to <i>buildings</i> used to diagnose and treat patients, usually on an unscheduled, walk-in basis, who have an injury or illness that requires immediate care but is not serious enough to warrant a visit to an emergency department. Includes facilities that provide same-day surgical, diagnostic and preventive care.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, exam rooms, waiting rooms, atriums, employee break rooms and kitchens, restrooms, elevator shafts, stairways, mechanical rooms, and storage areas.</u></p> |
| 57 | <u>Health care</u> | <u>Other - Specialty Hospital</u> | | <p><u>Other/specialty hospitals refers to long-term acute care hospitals, inpatient rehabilitation facilities, including cancer centers and psychiatric and substance abuse hospitals/facilities.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building/complex</i>, including medical offices, patient rooms, laboratories, lobbies, atriums, cafeterias, restrooms, stairways, corridors connecting <i>buildings</i>, storage areas, and elevator shafts.</u></p> |
| 58 | <u>Lodging/residential</u> | <u>Barracks</u> | | <p><u>Barracks refers to <i>residential buildings</i> associated with military facilities or educational institutions, which offer multiple accommodations for long-term residents.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including bedrooms, common areas, food service facilities, restrooms, laundry facilities, meeting spaces, exercise rooms, health club/spas, lobbies, elevator shafts, storage areas, and stairways.</u></p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|-----------|--|--------------------------------|---------------------|---|
| <u>59</u> | <u>Lodging/ residential</u> | <u>Hotel</u> | <u>Hotel</u> | <p><u>Hotel refers to <i>buildings</i> renting overnight accommodations on a room/suite and nightly basis, and typically include a bath/shower and other facilities in guest rooms. Hotel properties typically have daily services available to guests including housekeeping/laundry and a front desk/concierge. Hotel does not apply to properties where more than 50 percent of the floor area is occupied by fractional ownership units such as condominiums or vacation timeshares, or to private residences that are rented out on a daily or weekly basis. Hotel properties should be majority-owned by a single entity and have rooms available on a nightly basis. Condominiums or time shares should select the multifamily housing building activity type.</u></p> <p><u>Gross floor area should include all interior space within the <i>building</i>, including guestrooms, halls, lobbies, atriums, food preparation and restaurant space, conference and banquet space, fitness centers/spas, laundry facilities, elevator shafts, stairways, mechanical rooms, storage areas, restrooms, employee break rooms, and back-of-house offices.</u></p> |
| <u>60</u> | <u>Lodging/ residential</u> | <u>Hotel</u> | <u>Motel or inn</u> | <p><u>Motel is a hotel like lodging where most rooms are entered from the exterior.</u></p> <p><u>Gross floor area should include all interior space within the <i>building</i>, including guestrooms, halls, lobbies, atriums, food preparation and restaurant space, conference and banquet space, fitness centers/spas, laundry facilities, elevator shafts, stairways, mechanical rooms, storage areas, restrooms, employee break rooms, and back-of-house offices.</u></p> |
| <u>61</u> | <u>Lodging/ residential</u> | <u>Multifamily Housing</u> | | <p><u>Multifamily housing refers to a covered <i>multifamily building</i> containing sleeping units or more than five dwelling units where occupants are primarily permanent in nature.</u></p> <p><u>Gross floor area should include management offices or other spaces that may not contain living units.</u></p> <p><u>Gross floor area should include all interior space within the <i>building</i>, including living space in each unit (including occupied and unoccupied units), interior common areas (e.g., lobbies, offices, community rooms, common kitchens, fitness rooms), hallways, stairwells, elevator shafts, connecting corridors between <i>buildings</i>, storage areas, restrooms, and mechanical space such as a boiler room.</u></p> |

| | Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|----|---|----------------------------------|--------------|---|
| 62 | <u>Lodging/residential</u> | <u>Prison/Incarceration</u> | | <p>9</p> <p><u>Prison/incarceration refers to federal, state, local, or private-sector buildings used for the detention of persons awaiting trial or convicted of crimes.</u></p> <p><u>Gross floor area should include all space within the building, including holding cells, cafeterias, administrative spaces, kitchens, lobbies, atriums, conference rooms and auditoriums, fitness areas, storage areas, restrooms, stairways, and elevator shafts.</u></p> |
| 63 | <u>Lodging/residential</u> | <u>Residence Hall/Dormitory</u> | | <p><u>Residence hall/dormitory refers to buildings associated with educational institutions or military facilities, which offer multiple accommodations for long-term residents.</u></p> <p><u>Gross floor area should include all space within the building, including bedrooms, common areas, food service facilities, restrooms, laundry facilities, meeting spaces, exercise rooms, health club/spas, lobbies, elevator shafts, storage areas, and stairways.</u></p> |
| 64 | <u>Lodging/residential</u> | <u>Residential Care Facility</u> | | <p><u>Residential care facilities refers to buildings that provide rehabilitative and restorative care to patients on a long-term or permanent basis. Residential care facilities treat mental health issues, substance abuse, and rehabilitation for injury, illness, and disabilities. This building activity type is intended for facilities that offer long-term residential care to residents of all ages who may need assistance with activities of daily living. If a facility is designed to provide nursing and assistance to seniors only, then the senior care community building activity type should be used.</u></p> <p><u>Gross floor area should include all space within the building, including individual rooms or units, wellness centers, exam rooms, community rooms, small shops or service areas for residents and visitors (e.g., hair salons, convenience stores), staff offices, lobbies, atriums, cafeterias, kitchens, restrooms, storage areas, hallways, basements, stairways, corridors between buildings, and elevator shafts.</u></p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|----|--|------------------------------------|----------------------------------|---|
| 65 | <u>Lodging/residential</u> | <u>Senior Care Community</u> | | <p>Senior care community refers to <i>buildings</i> that house and provide care and assistance for elderly residents.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including individual rooms or units, wellness centers, exam rooms, community rooms, small shops or service areas for residents and visitors (e.g., hair salons, convenience stores), staff offices, lobbies, atriums, cafeterias, kitchens, restrooms, storage areas, hallways, basements, stairways, corridors between <i>buildings</i>, and elevator shafts.</p> <p>A community with only independent living should benchmark under the multifamily building activity type.</p> |
| 66 | <u>Lodging/residential</u> | <u>Other - Lodging/Residential</u> | | <p>Other - Lodging/residential refers to <i>buildings</i> used for residential purposes other than those described in the available building activity types in this table (i.e., residential other than multifamily residential, single family home, senior care community, residence hall/dormitory, barracks, prison/incarceration, or hotel).</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including living areas, common areas, and administrative space, kitchens used by staff, lobbies, waiting areas, cafeterias, restrooms, stairways, atriums, elevator shafts, and storage areas.</p> |
| 67 | <u>Mixed use</u> | <u>Mixed Use Property</u> | | 4 <p>Must use of Section 7.2.3 method for mixed use <i>buildings</i>, area weighted <i>EUI</i>, based on building activity types.</p> |
| 68 | <u>Office</u> | <u>Medical Office</u> | | 3 <p>Medical office refers to <i>buildings</i> used to provide diagnosis and treatment for medical, dental, or psychiatric outpatient care.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, exam rooms, laboratories, lobbies, atriums, conference rooms and auditoriums, employee break rooms and kitchens, restrooms, elevator shafts, stairways, mechanical rooms, and storage areas.</p> <p>If you have restaurants, retail (pharmacy), or services (dry cleaners) within the medical office, you should most likely include this square footage and energy in the medical office building activity type.</p> |
| 69 | <u>Office</u> | <u>Office</u> | <u>Admin/professional office</u> | <p>Administrative/professional office refers to <i>buildings</i> used for the conduct of commercial business activities.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, conference rooms and auditoriums, kitchens used by staff, lobbies, fitness areas for staff, restrooms, storage areas, stairways, and elevator shafts.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|----|--|--------------------------|------------------------------------|--|
| 70 | <u>Office</u> | <u>Office</u> | <u>Bank/other financial</u> | <p>Financial office refers to <i>buildings</i> used for financial services such as bank headquarters and securities and brokerage firms.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, trading floors, conference rooms and auditoriums, vaults, kitchens used by staff, lobbies, atriums, fitness areas for staff, restrooms, storage areas, stairways, and elevator shafts.</p> |
| 71 | <u>Office</u> | <u>Office</u> | <u>Government office</u> | <p>Government office is an office used by employees of federal, state, county, or city governments.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, conference rooms and auditoriums, kitchens used by staff, lobbies, fitness areas for staff, restrooms, storage areas, stairways, and elevator shafts.</p> |
| 72 | <u>Office</u> | <u>Office</u> | <u>Medical office (diagnostic)</u> | <p>3</p> <p>Medical office refers to <i>buildings</i> used to provide diagnosis and treatment for medical, dental, or psychiatric outpatient care.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, exam rooms, laboratories, lobbies, atriums, conference rooms and auditoriums, employee break rooms and kitchens, restrooms, elevator shafts, stairways, mechanical rooms, and storage areas.</p> |
| 73 | <u>Office</u> | <u>Office</u> | <u>Other office</u> | <p>Other office is an office that does not meet the definition of any of the other office building activity type defined in Table 7-4.</p> |
| 74 | <u>Office</u> | <u>Veterinary Office</u> | | <p>Veterinary office refers to <i>buildings</i> used for the medical care and treatment of animals.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, exam rooms, waiting rooms, atriums, employee break rooms and kitchens, restrooms, elevator shafts, stairways, mechanical rooms, and storage areas.</p> |
| 75 | <u>Office</u> | <u>Other - Office</u> | | <p>Other office is an office that does not meet the definition of any of the other office building activity type defined in Table 7-4.</p> |
| 76 | <u>Public services</u> | <u>Courthouse</u> | | <p>Courthouse refers to <i>buildings</i> used for federal, state, or local courts, and associated administrative office space.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including temporary holding cells, chambers, kitchens used by staff, lobbies, atriums, conference rooms and auditoriums, fitness areas for staff, restrooms, storage areas, stairways, and elevator shafts.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|----|--|------------------------------------|---------------------|---|
| 77 | <u>Public services</u> | <u>Fire Station</u> | | <p>Fire station refers to <i>buildings</i> used to provide emergency response services associated with fires. Fire stations may be staffed by either volunteer or full-time paid firefighters.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including office areas, vehicle storage areas, residential areas (if applicable), storage areas, break rooms, restrooms, kitchens, elevator shafts, and stairwells.</p> |
| 78 | <u>Public services</u> | <u>Library</u> | | <p>Library refers to <i>buildings</i> used to store and manage collections of literary and artistic materials such as books, periodicals, newspapers, films, etc. that can be used for reference or lending.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including circulation rooms, storage areas, reading/study rooms, administrative space, kitchens used by staff, lobbies, conference rooms and auditoriums, fitness areas for staff, restrooms, storage areas, stairways, and elevator shafts.</p> |
| 79 | <u>Public services</u> | <u>Mailing Center/ Post Office</u> | | <p>Mailing center/post office refers to <i>buildings</i> used as retail establishments dedicated to mail and mailing supplies. This includes U.S. Post Offices, in addition to private retailers that offer priority mail services and mailing supplies.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including retail counters, administrative space, kitchens used by staff, restrooms, lobbies, conference rooms, storage areas, stairways, and mechanical rooms.</p> |
| 80 | <u>Public services</u> | <u>Police Station</u> | | <p>Police station applies to <i>buildings</i> used for federal, state, or local police forces and their associated office space.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including offices, temporary holding cells, kitchens used by staff, restrooms, lobbies, atriums, conference rooms and auditoriums, fitness areas for staff, storage areas, stairways, and elevator shafts.</p> |
| 81 | <u>Public services</u> | <u>Prison/ Incarceration</u> | | <p>9</p> <p>Prison/incarceration refers to federal, state, local, or private-sector <i>buildings</i> used for the detention of persons awaiting trial or convicted of crimes.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including holding cells, cafeterias, administrative spaces, kitchens, restrooms, lobbies, atriums, conference rooms and auditoriums, fitness areas, storage areas, stairways, and elevator shafts.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|----|--|--|---------------------|--|
| 82 | <u>Public services</u> | <u>Social/Meeting Hall</u> | | <p><u>Social/meeting hall refers to <i>buildings</i> primarily used for public or private gatherings. This may include community group meetings, seminars, workshops, or performances. Please note that there is another building activity type available, convention center, for large exhibition and conference facilities.</u></p> <p><u>Gross floor area should include all space within the <i>building</i>, including meeting rooms, auditoriums, food service areas, restrooms, lobbies, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells.</u></p> |
| 83 | <u>Public services</u> | <u>Transportation Terminal/Station</u> | | <p><u>Transportation terminal/station applies to <i>buildings</i> used primarily for accessing public or private transportation. This includes train stations, bus stations, airports, and seaports. These terminals include areas for ticket purchases, and embarkation/disembarkation, and may also include public waiting areas with restaurants and other concessions.</u></p> <p><u>Gross floor area should include all space within the <i>building</i>, including boarding areas, waiting areas, administrative space, kitchens used by staff, restrooms, lobbies, restaurants, cafeterias, stairways, atriums, elevator shafts, and storage areas.</u></p> |
| 84 | <u>Public services</u> | <u>Other - Public Service</u> | | <p><u>Other - Public service refers to <i>buildings</i> used by public-sector organizations to provide public services other than those described in the available building activity types in this table (i.e., services other than offices, courthouses, drinking water treatment and distribution plants, fire stations, libraries, mailing centers or post offices, police stations, prisons or incarceration facilities, social or meeting halls, transportation terminals or stations, or wastewater treatment plants).</u></p> <p><u>Gross floor area should include all space within the <i>building</i>, including administrative space, kitchens used by staff, restrooms, lobbies, waiting areas, cafeterias, stairways, atriums, elevator shafts, landscaping sheds, and storage areas.</u></p> |
| 85 | <u>Religious worship</u> | <u>Worship Facility</u> | | <p><u>Worship facility refers to <i>buildings</i> that are used as places of worship. This includes churches, temples, mosques, synagogues, meetinghouses, or any other <i>buildings</i> that primarily function as a place of religious worship.</u></p> <p><u>Gross floor area should include all areas inside the <i>building</i> that includes the primary worship area, including food preparation, community rooms, classrooms, and supporting areas such as restrooms, storage areas, hallways, and elevator shafts.</u></p> |

| Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions | |
|---|---|----------------------|---|--|
| 86 | <u>Retail</u> <u>Automobile Dealership</u> | | | <p><u>Automobile dealership</u> refers to <i>buildings</i> used for the sale of new or used cars and light trucks.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including sales floors, offices, conference rooms, vehicle service centers, parts storage areas, waiting rooms, staff break rooms, restrooms, hallways, and stairwells.</p> |
| 87 | <u>Retail</u> <u>Convenience Store with Gas Station</u> | | | <p><u>Convenience store with gas station</u> refers to <i>buildings</i> that are colocated with gas stations and are used for the sale of a limited range of items such as groceries, toiletries, newspapers, soft drinks, tobacco products, and other everyday items. <u>Convenience store with gas station</u> may include space for vehicle servicing and repair.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including sales floors, offices, restrooms, staff break rooms, storage areas, and vehicle repair areas.</p> |
| 88 | <u>Retail</u> <u>Convenience Store without Gas Station</u> | | | <p><u>Convenience store without gas station</u> refers to <i>buildings</i> used for the sale of a limited range of items such as groceries, toiletries, newspapers, soft drinks, tobacco products, and other everyday items, which are not colocated with a gas station.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including sales floors, offices, restrooms, staff break rooms, and storage areas.</p> |
| 89 | <u>Retail</u> <u>Enclosed Mall</u> | | 5 | <p><u>Enclosed mall</u> refers to <i>buildings</i> that house multiple stores, often "anchored" by one or more department stores, and with interior walkways. Most stores will not have entrances accessible from outside, with the exception of the "anchor" stores.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including retail stores, offices, food courts, restaurants, storage areas, restrooms, staff break rooms, atriums, walkways, stairwells, and mechanical rooms.</p> |
| 90 | <u>Retail</u> <u>Lifestyle Center</u> | <u>Enclosed mall</u> | 5 | <p><u>Enclosed mall</u> refers to <i>buildings</i> that house multiple stores, often "anchored" by one or more department stores, and with interior walkways. Most stores will not have entrances accessible from outside, with the exception of the "anchor" stores.</p> <p><u>Gross floor area</u> should include all space within the <i>building</i>, including retail stores, offices, food courts, restaurants, storage areas, restrooms, staff break rooms, atriums, walkways, stairwells, and mechanical rooms.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> | |
|-----------|--|-------------------------|---------------------|--|---|
| <u>91</u> | <u>Retail</u> | <u>Lifestyle Center</u> | <u>Other retail</u> | | <p><u>Other - Retail refers to a mixed-use commercial development that includes retail stores and leisure amenities that do not meet the definition of lifestyle center - retail store.</u></p> <p><u>Gross floor area should include all space within the building, including retail stores, offices, food courts, restaurants, residential areas, storage areas, restrooms, staff break rooms, walkways, stairwells, and mechanical areas.</u></p> |
| <u>92</u> | <u>Retail</u> | <u>Lifestyle Center</u> | <u>Retail store</u> | | <p><u>Lifestyle center refers to a mixed-use commercial development that includes retail stores and leisure amenities, where individual retail stores typically contain an entrance accessible from the outside and are not connected by internal walkways. Lifestyle centers have an open-air design, unlike traditional enclosed malls, and often include landscaped pedestrian areas, as well as streets and vehicle parking.</u></p> <p><u>Gross floor area should include all space within the building, including retail stores, offices, food courts, restaurants, residential areas, storage areas, restrooms, staff break rooms, walkways, stairwells, and mechanical areas.</u></p> |
| <u>93</u> | <u>Retail</u> | <u>Lifestyle Center</u> | | <u>4</u> | <u>Must use of Section 7.2.3 method for mixed use buildings.</u> |
| <u>94</u> | <u>Retail</u> | <u>Retail Store</u> | | | <p><u>Retail store refers to individual stores used to conduct the retail sale of nonfood consumer goods such as clothing, books, toys, sporting goods, office supplies, hardware, and electronics. Buildings containing multiple stores should be classified as enclosed mall, lifestyle center, or strip mall.</u></p> <p><u>Gross floor area should include all space within the building, including sales areas, storage areas, offices, restrooms, staff break rooms, elevators, and stairwells.</u></p> |
| <u>95</u> | <u>Retail</u> | <u>Strip Mall</u> | | <u>4</u> | <p><u>Strip mall refers to buildings comprising more than one retail store, restaurant, or other business, in an open-air configuration where each establishment has an exterior entrance to the public and there are no internal walkways.</u></p> <p><u>Gross floor area should include all space within the building, including retail stores, offices, restaurants, storage areas, restrooms, staff break rooms, and stairwells.</u></p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> | |
|-----------|--|--|----------------------|--|---|
| <u>96</u> | <u>Retail</u> | <u>Supermarket/ Grocery Store</u> | | | <p><u>Supermarket/grocery store refers to buildings used for the retail sale of primarily food and beverage products, and which may include small amounts of preparation and sale of ready-to-eat food. Buildings where the primary business is the on-site preparation and sale of ready-to-eat food should use one of the restaurant building activity types.</u></p> <p><u>Gross floor area should include all space within the building, including the sales floor, offices, storage areas, kitchens, restrooms, staff break rooms, and stairwells.</u></p> |
| <u>97</u> | <u>Retail</u> | <u>Wholesale Club/ Supercenter</u> | | | <p><u>Wholesale club/supercenter refers to buildings used to conduct the retail sale of a wide variety of merchandise, typically in bulk quantities. Merchandise may include food, clothing, office supplies, furniture, electronics, books, sporting goods, toys, and hardware.</u></p> <p><u>Gross floor area should include all space within the building, including the sales floor, offices, storage areas, kitchens, restrooms, staff break rooms, elevators, and stairwells.</u></p> |
| <u>98</u> | <u>Retail</u> | <u>Other - Retail/ Mall</u> | <u>Enclosed mall</u> | <u>5</u> | <p><u>Enclosed mall refers to buildings that house multiple stores, often "anchored" by one or more department stores, and with interior walkways. Most stores will not have entrances accessible from outside, with the exception of the "anchor" stores.</u></p> <p><u>Gross floor area should include all space within the building, including retail stores, offices, food courts, restaurants, storage areas, restrooms, staff break rooms, atriums, walkways, stairwells, and mechanical rooms.</u></p> |
| <u>99</u> | <u>Retail</u> | <u>Other - Retail/ Mall</u> | | <u>4</u> | <p><u>Must use of Section 7.2.3 method for mixed use buildings.</u></p> |

| | Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|------------|---|--|----------------------|---|
| <u>100</u> | <u>Technology/science</u> | <u>Data Center</u> | | <p>6</p> <p><u>Data center</u> refers to an activity space or <i>buildings</i> specifically designed and equipped to meet the needs of high density computing equipment, such as server racks, used for data storage and processing, including dedicated uninterruptible power supplies and cooling systems and require a constant power load of 75 kW or more.</p> <p><i>Gross floor area</i> shall only include space within the <i>building</i>, including raised floor computing space, server rack aisles, storage silos, control console areas, battery rooms and mechanical rooms for dedicated cooling equipment.</p> <p><i>Gross floor area</i> shall not include a server closet, telecommunications equipment closet, computer training area, office, elevator, corridors, or other auxiliary space.</p> <p>This is a <i>building</i> or activity without an energy target. Included to provide definition only.</p> |
| <u>101</u> | <u>Technology/science</u> | <u>Laboratory</u> | | <p><u>Laboratory</u> refers to <i>buildings</i> that provide controlled conditions in which scientific research, measurement, and experiments are performed or practical science is taught.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including workstations/hoods, offices, conference rooms, restrooms, storage areas, decontamination rooms, mechanical rooms, elevator shafts, and stairwells.</p> |
| <u>102</u> | <u>Technology/science</u> | <u>Other - Technology/Science</u> | <u>Other service</u> | <p><u>Other - Technology/science</u> refers to <i>buildings</i> used for science and technology related services other than laboratories and data centers.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including areas with the main business activity, production areas, administrative offices, restrooms, employee break areas, stairways, atriums, elevator shafts, and storage areas.</p> |
| <u>103</u> | <u>Services</u> | <u>Personal Services (Health/Beauty, Dry Cleaning, etc.)</u> | | <p><u>Personal services</u> refers to <i>buildings</i> used to sell services rather than physical goods. Examples include dry cleaners, salons, spas, etc.</p> <p><i>Gross floor area</i> should include all space within the <i>building</i>, including sales floors, offices, storage areas, restrooms, staff break rooms, walkways, and stairwells.</p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|------------|--|---|------------------------------------|--|
| <u>104</u> | <u>Services</u> | <u>Repair Services (Vehicle, Shoe, Locksmith, etc.)</u> | <u>Repair shop</u> | <p><u>Repair services refers to <i>buildings</i> in which repair service is provided other than vehicle repair or maintenance. Examples include vehicle service or repair shops, shoe repair, jewelry repair, locksmiths, etc.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including sales floors, repair areas, workshops, offices, parts storage areas, waiting rooms, restrooms, staff break rooms, hallways, and stairwells.</u></p> |
| <u>105</u> | <u>Services</u> | <u>Repair Services (Vehicle, Shoe, Locksmith, etc.)</u> | <u>Vehicle service/repair shop</u> | <p><u>Vehicle service/repair shop refers to <i>buildings</i> in which vehicle repair service is provided. Examples include vehicle mechanical repair, body and paint shops, muffler, brake and tire shops.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including sales floors, repair areas, workshops, offices, parts storage areas, waiting rooms, restrooms, staff break rooms, hallways, and stairwells.</u></p> |
| <u>106</u> | <u>Services</u> | <u>Repair Services (Vehicle, Shoe, Locksmith, etc.)</u> | <u>Vehicle storage/maintenance</u> | <p><u>Repair services - Vehicle storage/maintenance refers to <i>buildings</i> in which vehicle storage or maintenance service is provided. Examples include warehousing of vehicles and maintenance services such as vehicle washing/detailing.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including sales floors, maintenance areas, repair areas, workshops, offices, storage areas, waiting rooms, restrooms, staff break rooms, hallways, and stairwells.</u></p> |
| <u>107</u> | <u>Services</u> | <u>Other - Services</u> | | <p><u>Other - Services refers to <i>buildings</i> in which primarily services are offered, but which does not fit into the personal services or repair services building activity type. Examples include kennels, photo processing shops, etc.</u></p> <p><u><i>Gross floor area</i> should include all space within the <i>building</i>, including sales floors, offices, storage areas, restrooms, staff break rooms, walkways, and stairwells.</u></p> |

| | <u>Building Activity Type^{1,2}</u> | | <u>Notes</u> | <u>Clean Buildings Performance Standard Definitions</u> |
|------------|--|------------------------------|---------------------|--|
| <u>108</u> | <u>Utility</u> | <u>Energy/Power Station</u> | | <p>7</p> <p><u>Energy/power station applies to buildings containing machinery and/or associated equipment for generating electricity or district heat (steam, hot water, or chilled water) from a raw fuel, including fossil fuel power plants, traditional district heat power plants, combined heat and power plants, nuclear reactors, hydroelectric dams, or facilities associated with a solar or wind farm.</u></p> <p><u>Gross floor area should include all space within the building, including power generation areas (boilers, turbines, etc.), administrative space, cooling towers, kitchens used by staff, restrooms, lobbies, meeting rooms, cafeterias, stairways, elevator shafts, and storage areas (which may include fossil fuel storage tanks or bins).</u></p> <p><u>This is a building or activity without an energy target. This may be exempt from the standard, see Section Z4.1 2, d.</u></p> |
| <u>109</u> | <u>Utility</u> | <u>Other - Utility</u> | | <p>7</p> <p><u>Other - Utility applies to buildings used by a utility for some purpose other than general office or energy/power generation. This may include utility transfer stations or maintenance facilities. Note that an administrative office occupied by a utility should be entered as office, and a power or energy generation plant should be entered as energy/power station.</u></p> <p><u>Gross floor area should include all space within the building, including administrative space, maintenance and equipment areas, generator rooms, kitchens used by staff, restrooms, lobbies, meeting rooms, stairways, elevator shafts, and storage areas.</u></p> <p><u>This is a building or activity without an energy target. This may be exempt from the standard, see Section Z4.1 2, d.</u></p> |
| <u>110</u> | <u>Warehouse/storage</u> | <u>Self-Storage Facility</u> | | <p><u>Self-storage facility refers to buildings that are used for private storage. Typically, a single self-storage facility will contain a variety of individual units that are rented out for the purpose of storing personal belongings.</u></p> <p><u>Gross floor area should include all space within the building, including individual storage units, administrative offices, security and maintenance areas, mechanical rooms, hallways, stairways, and elevator shafts.</u></p> |

| | Building Activity Type^{1,2} | | Notes | Clean Buildings Performance Standard Definitions |
|------------|---|--------------------------------------|--------------|---|
| <u>111</u> | <u>Warehouse/ storage</u> | <u>Distribution Center</u> | | <p>Distribution center refers to <u>unrefrigerated buildings</u> that are used for the temporary storage and redistribution of goods, manufactured products, merchandise or raw materials. <u>Buildings</u> that are used primarily for assembling, modifying, manufacturing, or growing goods, products, merchandise or raw material should be classified as manufacturing facility.</p> <p><u>Gross floor area</u> should include all space within the <u>building</u>, including space designed to store nonperishable goods and merchandise, offices, lobbies, stairways, restrooms, equipment storage areas, and elevator shafts.</p> |
| <u>112</u> | <u>Warehouse/ storage</u> | <u>Nonrefrigerated Warehouse</u> | | <p>Nonrefrigerated warehouse refers to <u>unrefrigerated buildings</u> that are used to store goods, manufactured products, merchandise or raw materials. <u>Buildings</u> that are used primarily for assembling, modifying, manufacturing, or growing goods, products, merchandise or raw material should be classified as manufacturing facility.</p> <p><u>Gross floor area</u> should include all space within the <u>building</u>, including the main storage rooms, administrative offices, lobbies, stairways, restrooms, equipment storage areas, and elevator shafts.</p> |
| <u>113</u> | <u>Warehouse/ storage</u> | <u>Refrigerated Warehouse</u> | | <p>Refrigerated warehouse refers to <u>refrigerated buildings</u> that are used to store or redistribute perishable goods or merchandise under refrigeration at temperatures below 50 degrees Fahrenheit (10 degrees Celsius). <u>Buildings</u> that are used primarily for assembling, modifying, manufacturing, or growing goods, products, merchandise or raw material should be classified as manufacturing facility.</p> <p><u>Gross floor area</u> should include all space within the <u>building</u>, which includes temperature controlled areas, administrative offices, lobbies, stairways, restrooms, equipment storage areas, and elevator shafts.</p> |

Notes:

1. Select the most specific building activity type that applies.
2. Building activity types are defined by AHJ in Table 7-4.
3. All medical offices considered to be diagnostic type.
4. Must use of Section 7.2.3 method for mixed use buildings.
5. Suggest considering use of Section 7.2.3 method for mixed use buildings.
6. This is a *building* or activity without an energy target. Included to provide definition only.
7. This is a *building* or activity without an energy target. This may be exempt from the standard, see Section Z4.1.2, d.
8. Laboratories as defined by the college/university building activity type where the primary activity is for teaching practical science shall use the college/university building activity type target. College/university buildings with research laboratory building activities where the primary activities are of scientific research, measurement, and experiments are performed, can utilize building activity type 101 laboratory for an area weighted EUI.
9. Building activity type target developed at the campus-level and these covered buildings may comply at a campus-level with the EUI. "Campus-level" means a collection of all buildings with a single shared primary function that act as a single property.

[Statutory Authority: RCW 19.27A.210. WSR 23-13-081, § 194-50-150, filed 6/15/23, effective 7/16/23; WSR 20-22-059, § 194-50-150, filed 10/30/20, effective 11/30/20.]

NEW SECTION

WAC 194-50-160 Normative Annex Y—Washington state Tier 2 covered buildings reporting requirements—This is a normative annex and is part of the Tier 2 covered building requirements of this standard.

Y1 Building owner notifications by the AHJ.

Y1.1 Notification to building owners of covered buildings by the AHJ.

Based on records obtained from each county assessor and other available information sources, the *AHJ* must create a database of *covered buildings* and *building owners* required to comply with the standard established in accordance with this section. The database may include *buildings* and *building complexes* presumed to meet the definition of *covered building* and *multifamily residential buildings* greater than 20,000 square feet in floor area.

Y1.1.1 The database will contain information about *buildings* that may be subject to compliance and their owners. The database will also contain information to assist tracking and reporting on *building owner* compliance, and incentive application and distribution. Commerce will create a method for tracking *building owner* notification responses. Each *building* or *building complex* will be assigned a unique *building* identifier.

Y1.2 By July 1, 2025, the *AHJ* must provide the owners of *covered buildings* with notification of compliance requirements.

Y1.3 Failure by the *AHJ* to provide the notification in Section Y1.2 does not release the *building owner* of the legal obligation to comply with this law. When a *covered building* undergoes a change of ownership, it is the buyer's responsibility to contact the *AHJ* and update the *covered building's* profile.

Y2 Building owner response to notifications.

Y2.1 Correction of errors. *Building owners* are responsible for reviewing the property and *building* information provided by the *AHJ* through notification including, but not limited to, *building* or *building complex* ownership details, *gross floor area*, and other information as identified by the *building owner*.

Y2.1.1 Correction of errors documentation. *Building owners* who are notified in error may submit a correction to the *AHJ*. The correction will be used to document *gross floor area* (conditioned and unconditioned) and/or *building type*.

Y3 Washington state reporting requirements for building owners.

Y3.1 General compliance. The *building owner* of a *Tier 2 covered building* must report compliance with the standard to the *AHJ* in accordance with the compliance schedule established under Section Y3.2 and every five years thereafter. For each reporting date, the *building owner* must submit documentation to demonstrate that

1. The *weather normalized energy use intensity* of the *Tier 2 covered building* measured in a period not to exceed two years prior to the compliance deadline specified in Normative Annex Y, Section Y3.1 compared to the *energy use intensity target*; and has developed and is *maintaining* an energy management plan (*EMP*) in accordance with Section 5, including an operations and maintenance program (*O&M*) in accordance with Section 6; or

2. The *covered building* has received *Tier 2 covered building conditional compliance* from the *AHJ*; or

3. The *covered building* is exempt from the standard by demonstrating that the *building* meets one of the criteria for an exemption.

Y3.2 Compliance schedule. The *building owner* of a *Tier 2 covered building* must report the *building owner's* compliance with the standard to the *AHJ* in accordance with the appropriate initial compliance date as follows and every five years thereafter.

1. For a *building* with more than 20,000 gross square feet but less than 50,001 gross square feet and all *multifamily residential buildings* more than 20,000 gross square feet: July 1, 2027.

2. *Covered buildings* complying at a campus-level or *connected building* level shall use the compliance schedule representing the largest *covered building*. Where the largest *building* is more than 50,000 gross square feet but less than 90,001 gross square feet: June 1, 2028. Notify the *AHJ* to update the *covered building* profile(s) and your compliance deadline.

Y3.2.1 Early compliance option. *Building owners* may submit for compliance to the *AHJ* beginning July 1, 2025. Energy use data for developing the net energy consumption of the *covered building* shall be measured in a period not to exceed two years prior to the submission of compliance documentation. This section expires June 1, 2027.

Y3.2.2 Application for Tier 2 covered building conditional compliance. Applications for *Tier 2 covered building conditional compliance* must be submitted to the *AHJ* prior to the compliance date to receive *Tier 2 covered building conditional compliance* approval.

1. *Tier 2 covered building conditional compliance* is valid for the *EMP* and *O&M* requirements of the standard.

2. *Benchmarking* is required and shall be reported in application for *Tier 2 covered building conditional compliance*. Approved applications will receive a revised compliance date of 180 days. Application for *Tier 2 covered building conditional compliance* is limited to one application per compliance cycle.

Y3.2.3 Application for exemption. *Building owners* submitting an application for exemption as specified in Section Y4.1 must submit to the *AHJ* no sooner than two years prior and no later than 180 days prior to the compliance date to receive exemption approval prior to the compliance date.

Y4 Documentation of compliance with the standard. Documentation of compliance shall be submitted to the *AHJ* demonstrating the *building owner* has complied with the standard through submission of documentation in accordance with Section Y4.1, Y4.2 or Y4.3.

Y4.1 Documentation of compliance through exemption. *Building owners* seeking approval of exemption shall submit to the *AHJ* Section Y6.7 Form H, "Application for Exemption Certificate," documenting the following:

1. **Exemption conditions.** The *building* qualifies for one of the exemptions listed in Y4.1(2), and:

a. **Exemption verification.** Compliance with the exemption must be verified by the owner based on the *building* as it is to be occupied and operating on the compliance date.

b. **Exemption application time frame.** Applications for exemptions may be submitted no sooner than two years prior to the compliance date and submitted to the *AHJ* no later than 180 days prior to the compliance date.

c. **Exemption certificate validity.** Exemptions certificates are only valid for the current compliance review cycle.

2. **Exemptions.** *Covered buildings* are not eligible for exemption from the standards unless they meet at least one of the following criteria:

a. **Certificate of occupancy.** The *building* did not have a certificate of occupancy or temporary certificate of occupancy for a consecutive 12-month period within two years prior to the compliance date.

b. **Physical occupancy.** The *building* did not have *physical occupancy* by owner or tenant for at least 50 percent of the conditioned floor area throughout the consecutive 12-month period prior to the *building* compliance date.

c. **Floor area.** The sum of the *building's gross floor area* minus unconditioned and *semi-heated spaces*, as defined in the Washington State Energy Code, is less than 20,000 square feet.

d. **Manufacturing or industrial.** More than 50 percent of the *gross floor area* of the *building* is used for manufacturing or other industrial purposes, as defined under the following use designations of the Washington state edition of the International Building Code:

i. Factory group F; or

ii. High hazard group H.

e. **Agricultural.** The *building* is an agricultural structure.

f. **Demolition.** The *building* is pending demolition.

g. **Financial hardship.** The *building* meets at least one of the following conditions of financial hardship:

i. The *building* had arrears of property taxes or water or wastewater charges that resulted in the *building's* inclusion, within the prior two years, on a city or county's annual tax lien sale list.

ii. The *building* has a court-appointed receiver in control of the asset due to financial distress.

iii. The *building* is owned by a financial institution through default by a borrower.

iv. The *building* has been acquired by a deed in lieu of foreclosure within the previous 24 months.

v. The *building* has a senior mortgage subject to a notice of default.

vi. The *building owner* has an immediate and heavy financial need that cannot be satisfied from other reasonable available resources and that is caused by events that are beyond their control.

3. **Notification of exemption approved or denied.** After documents have been submitted and reviewed, the *AHJ* will send notification of approval or denial.

a. If the exemption is approved, the *AHJ* shall notify the applicant stating the application has been approved and update the *AHJ* records for the *building*.

b. If the exemption is denied, the *AHJ* shall notify the applicant stating the application has been denied and update the *AHJ* records for the *building*.

i. **Requesting hearing for denied exemption.** See Section Y5.7 Administrative hearings.

4. **Compliance required when exemption denied.** When an application for exemption is denied, the *building owner* must proceed with the process to demonstrate compliance with one of the compliance options in Washington state reporting requirements for *building owners* in Sections Y4.2 through Y4.5.

Y4.2 Benchmarking. *Building owners* must provide the following documentation to verify that the *building weather normalized EUI* is compared to the *building EUI_t* and that the energy management plan (*EMP*), including the operations and maintenance program (*O&M*) is complete and being implemented.

1. Form A;
2. Form B; except *buildings* unable to meet Section 7.2, Determining Energy Target (*EUI_t*);
3. Form C.

Y4.3 Buildings approved for Tier 2 covered building conditional compliance. *Building owners* seeking approval of *Tier 2 covered building conditional compliance* for the energy management plan (*EMP*), including the operations and maintenance (*O&M*) program shall submit to the *AHJ Tier 2 covered building conditional compliance* application along with the following documentation:

1. Form A;
2. Form B;
3. Form C.

Once *Tier 2 covered building conditional compliance* is approved.

4. Documentation to verify that the *EMP* and *O&M* is complete and being implemented must be submitted to the *AHJ* by the revised compliance date.

Y5. Violations, assessment of administrative penalties and review of penalty decisions.

Y5.1 Authorization. The *AHJ* is authorized to impose administrative penalties on *building owners* for failing to submit documentation demonstrating compliance with the requirements of this standard. Failure to submit documentation demonstrating compliance by the scheduled reporting date will result in penalties by legal notice.

Y5.2 Notice of violation, opportunity to correct, and intent to assess penalties (NOVCI).

Y5.2.1 Notifying owner of failure to demonstrate compliance. The *AHJ* may issue a NOVCI when a *building owner* has failed to submit documentation that demonstrates compliance with this standard by the scheduled reporting date.

Y5.2.2 Issuing NOVCI. A NOVCI may be issued for any of the following reasons:

1. Failure to submit a compliance report in the form and manner prescribed by the *AHJ*.
2. Failure to submit compliance report by the revised compliance date after receiving *Tier 2 covered building conditional compliance* approval.
3. Failure to provide accurate reporting consistent with the requirements of the standard.
4. Failure to provide a valid exemption certificate.

Y5.2.3 Identifying failure to demonstrate compliance. The *AHJ* will identify in the NOVCI the section(s) of law, code, or the standard for which the *building owner* has failed to demonstrate compliance.

Y5.2.4 Specifying time frame to remedy. The NOVCI will specify the time by which the *building owner* must cure the violation by submitting documentation that demonstrates compliance with the identified section(s) of law, code, or the standard. The *AHJ* will give the *building owner* at least 30 calendar days to submit such documentation.

Y5.3 Response to NOVCI.

Y5.3.1 Responding to NOVCI. *Building owners* must respond to a NOVCI within 30 days by meeting one of the following:

1. **Compliance:** Submitting a compliance report in the form and manner prescribed by the *AHJ*.
2. **Exemption:** Submitting an application for exemption in accordance with Section Y4.1 Documentation of compliance through exemption, if applicable;
3. **Tier 2 Covered building conditional compliance:** Submitting a *Tier 2 covered building conditional compliance* application in accordance with Section Y4.3 Buildings approved for Tier 2 covered building conditional compliance;
4. **Pay penalties:** Submitting their intent to pay the penalties by using the form provided by the *AHJ*; or
5. **Request hearing:** Submitting a request for an administrative hearing to challenge or mitigate the penalty in accordance with Section Y5.7 Administrative hearings.

Y5.3.2 Missing NOVCI response deadline. If the *building owner* does not respond within 30 days in accordance with Section Y5.3.1 Responding to the NOVCI, the *building owner* waives their right to a hearing, and the *director* or their designee may issue a final order assessing the penalties described in the NOVCI.

Y5.4 Assessment of administrative penalties.

Y5.4.1 Penalties for building owners. Failure to submit documentation demonstrating compliance with the standard by the date specified in a NOVCI will result in the assessment of administrative penalties at an amount not to exceed \$0.30 per square foot of *gross floor area*.

Y5.4.1.1 Penalties for building owners pursuing relief. For *building owners* subject to a NOVCI who respond within 30 days:

1. **With documentation demonstrating compliance or successful challenges.** For *building owners* that submit documentation demonstrating compliance or are successful in their challenges:
 - a. Fines shall be waived.
 - b. *Building owners* may be eligible to apply for early adopter incentive program.
2. **Without compliance documentation or unsuccessful challenges.** For *building owners* that have not submitted documentation demonstrating compliance by deadline or *Tier 2 covered building conditional compliance* deadline, or have an unsuccessful challenge:
 - a. The Tier 2 *building owner* will be assessed the maximum penalty of amount equal to \$0.30 per square foot of *gross floor area*.
 - b. *Building owners* may not be eligible to apply for early adopter incentive program.
 - c. The *AHJ* may by rule increase the penalty rates to adjust for the effects of inflation.

Y5.4.1.2 Building owners that choose to pay the fine rather than pursuing compliance. *Building owners* may choose to respond to the NOVCI by paying the maximum penalty.

1. The Tier 2 *building owner* will be assessed the maximum penalty of \$0.30 per square foot of *gross floor area*.

2. *Building owners* may not be eligible to apply for early adopter incentive program.

3. Penalties are assessed for each compliance period.

Y5.4.2 Interest. Interest will accrue on civil penalties pursuant to RCW 43.17.240 if and when the debt becomes past due.

Y5.5 Due date and collection of penalties.

Y5.5.1 Penalties due. Penalties shall become due and payable on the later of:

1. Thirty days after receipt of the final order imposing the penalty; or

2. The date specified in the final order imposing the penalty.

Y5.5.2 Debt collection. If a penalty has not been paid by the due date, the *AHJ* may assign the debt to a collection agency as authorized by RCW 19.16.500 or take other action to pursue collection as authorized by law. If referred to a collection agency, the *AHJ* may add a reasonable fee, payable by the debtor, to the outstanding debt for the collection agency fee.

Y5.6 Payment of administrative penalties. Penalties will be payable in U.S. funds to the Washington state department of commerce, as specified by the *AHJ*.

Y5.7 Administrative hearings.

Y5.7.1 Requesting a hearing. A *building owner* may request an administrative hearing after receiving a NOVCI or after the denial of their application for an exemption by submitting a request within 30 days of the date of a NOVCI or the denial of a timely application for exemption. All requests must be made in writing and filed at the address specified on the NOVCI. For convenience, the *AHJ* will attach a form titled "Request for Hearing" to the NOVCI that may be used to request an administrative hearing. Requests for hearing must be accompanied by the following:

1. Washington state building ID;

2. Submitted Annex Y Forms A, B, and C.

Y5.7.2 Hearing process. The *AHJ* may refer matters to the office of administrative hearings (OAH). Administrative hearings will be conducted in accordance with chapter 34.05 WAC, Administrative Procedure Act, chapter 10-08 WAC, Model rules of procedure, and the procedural rules adopted in this chapter. In the case of a conflict between the model rules of procedure and the procedural rules adopted in this section, the procedural rules adopted in this section take precedence.

Y5.7.3 Initial orders to become final orders. Initial orders issued by the presiding officer will become final without further agency action unless, within 20 days,

1. The *director* determines that the initial order should be reviewed; or

2. A party to the proceeding files a petition for administrative review of the initial order.

Upon occurrence of either event, notice shall be given to all parties to the proceeding.

Y5.7.4 Judicial review. A final order entered pursuant to this section is subject to judicial review pursuant to RCW 34.05.510 through 34.05.598.

Y5.7.5 Collected penalties. Administrative penalties collected under this section must be deposited into the low-income weatherization and structural rehabilitation assistance account created in RCW 70A.35.030 and reinvested into the clean buildings program, where feasible, to support compliance with the standard.

Y6 Compliance forms. The following sections replace Standard 100, Normative Annex C, "Reporting Forms," and provide additional forms specified by rule. *Building owners* are required to submit the applicable forms and the required supporting information to demonstrate compliance with the standard. These forms replace all referenced forms in this standard. The *AHJ* will make these forms available in an electronic format for submission to the *AHJ*.

Y6.1 Compliance with Standard 100 (Form A).

1. Building identification:
 - a. WA state building ID;
 - b. County;
 - c. County parcel number(s);
 - d. Portfolio manager property ID number;
 - e. Property name;
 - f. Parent property name;
 - g. Address 1 (street);
 - h. Address 2;
 - i. City;
 - j. State;
 - k. Postal code.
2. Contact information:
 - a. *Building owner* name(s);
 - b. Contact name;
 - c. Address 1 (street);
 - d. Address 2;
 - e. City;
 - f. State/province;
 - g. Country;
 - h. Postal code;
 - i. Telephone number;
 - j. Email address.
3. *Qualified person* (if applicable):
 - a. *Qualified person* name;
 - b. Address 1 (street);
 - c. Address 2;
 - d. City;
 - e. State;
 - f. Postal code;
 - g. Telephone number;
 - h. Email address;
 - i. Licensed, certified (select all that apply):
 - i. Licensure; or
 - ii. Certifying authority.
4. *Qualified energy manager* (if not the *qualified person*):
 - a. *Qualified energy manager* name;

- b. Address 1 (street);
- c. Address 2;
- d. City;
- e. State/province;
- f. Postal code;
- g. Country;
- h. Telephone number;
- i. Email address;
- j. *Qualified energy manager* certification number.

5. *Energy manager* (if different than the *qualified person* or *qualified energy manager*):

- a. *Energy manager* name;
 - b. Address 1 (street);
 - c. Address 2;
 - d. City;
 - e. State/province;
 - f. Postal code;
 - g. Country;
 - h. Telephone number;
 - i. Email address.
6. Summary data:

a. *Energy use intensity target* (EUI_t) (kBtu/ft²/yr) based on completed Section Y6.2 Form B;

Note: *Buildings* unable to develop EUI_t in accordance with Section 7.2.2 or 7.2.3 of this standard shall report national median site EUI target as calculated by the Energy Star portfolio manager account and reported on Form C.

b. Measured site EUI (kBtu/ft²) for the compliance year for this *building* based on Section Y6.3 Form C;

c. Measured *weather normalized* site EUI (kBtu/ft²) for the compliance year based on Section Y6.3 Form C;

d. List the months/year of the collected data (mm/yyyy - mm/yyyy) for the compliance year for this *building* from Section Y6.3 Form C;

e. *Buildings* unable to comply with Section 5.2, building energy monitoring, and complete Section Y6.3 Form C, shall provide a reason statement.

7. Have the energy management requirements of Section 5 been met?
 Yes No

- Upload energy management plan as specified by the AHJ.

8. Have the operation and maintenance requirements of Section 6 been met? Yes No

• Upload operation and maintenance implementation documentation as specified by the AHJ.

9. Date the audit and economic evaluation was completed (N/A if none required)

- Upload audit reports as specified by Section Y6.4 Form D.

10. We state that this *building* complies with ANSI/ASHRAE/IES Standard 100 as amended by the AHJ to conform with RCW 19.27A.210:

a. Signature of *building owner*:

- Date:

b. Signature of *qualified person*:

- Date:

c. Signature of *energy manager*:

- Date:

d. Signature of *authority having jurisdiction*:

- Conditional or final compliance:

- Date:

Y6.2 Building activity and energy use intensity target (EUI_t) (Form

B). Complete form provided by the AHJ with the following information:

1. Building identification:
 - a. Washington state building ID;
 - b. County;
 - c. County parcel number(s);
 - d. Portfolio manager property ID number;
 - e. Property name;
 - f. Parent property name;
 - g. Address 1 (street);
 - h. Address 2;
 - i. City;
 - j. State;
 - k. Postal code.
2. List the *building* location climate zone, 4C or 5B. Determine the climate zone using the ASHRAE climate zone map located in Informative Annex G.
 - a. *Buildings* located in Climate Zone 5C shall use Climate Zone 4C.
 - b. *Buildings* located in Climate Zone 6B shall use Climate Zone 5B.
3. The *gross floor area* in square feet shall be reported as defined in Section 3.
4. If entire *building* is single activity/type not listed in Table 7-1, it should be listed as "building without target" on Section Y6.1 Form A. List "energy target" as "N/A" on Section Y6.2 Form B, and Section Y6.2 Form B is considered complete.
5. Fill in fraction of *gross floor area* (A)_{*i*} for each activity. For single-activity *buildings* this is 1.0.
6. Fill in the operating shifts normalization factor (S)^{*i*} from Table 7-3 for each activity.
7. Fill in the activity energy target (EUI_{t1})_{*i*} from Table 7-2 (or table from AHJ) for each activity.
8. Calculate weighted space *EUI* target ($A \times S \times EUI_{t1}$)_{*i*} for each activity.
9. Add up fraction of floor area and enter sum in "Total fraction of floor area with target," and add up all weighted space *EUI* targets and enter sum as the "energy target" on Sections Y6.2 and Y6.1 Forms B and A.
10. If more than 50 percent of *gross floor area* has no target, it should be listed as "building without target" on Section Y6.1 Form A. List "energy target" as "N/A" on Section Y6.2 Form B. For single-activity *buildings* this is 1.0.

Y6.3 Energy use intensity calculations (Form C). *Energy use intensity* calculations shall be reported via the U.S. EPA's ENERGY STAR portfolio manager (www.energystar.gov/benchmark). The *energy manager* is responsible for creating Energy Star portfolio manager record for each *building*.

Exception to Y6.3: *Buildings* unable to comply with Section 5.2, building energy monitoring shall demonstrate compliance at the *connected buildings* level.

The Energy Star portfolio manager *building* record shall be identical to the *building* activity/type, fraction floor area, operating shifts (hours of operation), and *gross floor area* of the *building* as

reported on Form B. All inputs shall be up to date prior to reporting as required in Section Y4, and annually as required in Section 5.1.2.3.

Prior to submitting reports, run the Energy Star portfolio manager data quality checker and make all corrections required to complete the report.

The *energy manager* shall use the EPA's Energy Star portfolio manager share properties feature and share the property data with the *AHJ* by enabling the read-only access and exchange data feature.

For each report submitted under Section Y4, the *energy manager* shall create and submit a report documenting the required data fields listed (below) and other fields deemed necessary by the *AHJ* for the reporting period. This shall be submitted using the Washington state report specified in Energy Star portfolio manager.

Report fields shall include the following:

- Portfolio manager property ID;
- Portfolio manager parent property ID;
- Property name;
- Parent property name;
- Address 1;
- Address 2;
- City;
- County;
- State/Province;
- Postal Code;
- Primary property type - Self-selected;
- Primary property type - EPA calculated;
- List of all property use types at property;
- Property GFA - Self-reported (ft²);
- Property GFA - EPA calculated (*buildings* and parking) (ft²);
- Property GFA - EPA calculated (*buildings*) (ft²);
- Property GFA - EPA calculated (parking) (ft²);
- Largest property use type;
- Largest property use type - *Gross floor area* (ft²);
- 2nd Largest property use type;
- 2nd Largest property use - *Gross floor area* (ft²);
- 3rd Largest property use type;
- 3rd Largest property use type - *Gross floor area* (ft²);
- Year built;
- Occupancy;
- Property notes;
- Property data administrator;
- Property data administrator - Email;
- Last modified date - Property;
- Last modified date - Electric meters;
- Last modified date - Gas meters;
- Last modified date - Nonelectric nongas energy meters;
- Local standard ID(s) Washington state building standard;
- Data center - Energy estimates applied;
- Electricity use - Grid purchase and generated from on-site renewable systems (kWh);
 - Electricity use - Grid purchase (kWh);
 - Electricity use - Generated from on-site renewable systems and used on-site (kWh);
- Natural gas use (therms);

- Fuel oil #1 use (kBtu);
- Fuel oil #2 use (kBtu);
- Fuel oil #4 use (kBtu);
- Fuel oil #5 and #6 use (kBtu);
- Diesel #2 use (kBtu);
- Kerosene use (kBtu);
- Propane use (kBtu);
- District steam use (kBtu);
- District hot water use (kBtu);
- District chilled water use (kBtu);
- Coal - Anthracite use (kBtu);
- Coal - Bituminous use (kBtu);
- Coke use (kBtu);
- Wood use (kBtu);
- Other use (kBtu);
- Default values;
- Temporary values;
- Estimated data flag - Electricity (grid purchase);
- Estimated data flag - Natural gas;
- Alert - Data center does not have an IT meter;
- Alert - *Gross floor area* is 0 ft²;
- Alert - Property has no uses;
- Data quality checker - Date run;
- Data quality checker run - ?;
- Alert - Energy meter has less than 12 full calendar months of data;
- Alert - Energy meter has gaps;
- Alert - Energy meter has overlaps;
- Alert - Energy - No meters selected for metrics;
- Alert - Energy meter has single entry more than 65 days;
- Estimated values - Energy;
- Energy Star score;
- National median *site energy* use (kBtu);
- *Site energy* use (kBtu);
- *Site EUI* (kBtu/ft²);
- *Weather normalized site energy* use (kBtu);
- *Weather normalized site EUI* (kBtu/ft²);
- *Weather normalized site electricity* (kWh);
- *Weather normalized site electricity intensity* (kWh/ft²);
- *Weather normalized site natural gas use* (therms);
- *Weather normalized site natural gas intensity* (therms/ft²) energy current date;
- Electricity use - Generated from on-site renewable systems (kWh);
- Electricity use - Generated from on-site renewable systems and exported (kWh);
- Electricity Use - Grid purchase and generated from on-site renewable systems (kBtu);
- Electricity use - Grid purchase (kBtu);
- Electricity use - Generated from on-site renewable systems and used on site (kBtu);
- Natural gas use (kBtu);
- Percent of total electricity generated from on-site renewable systems;
- Cooling degree days (CDD) (°F);
- Heating degree days (HDD) (°F);

- Weather station name;
- Weather station ID.

Y6.4 Energy Audit Forms (Form D). Not applicable for *Tier 2 covered buildings*.

Form E. Not adopted.

Y6.5 Annex X, Investment Criteria Tool (Form F). Not applicable for *Tier 2 covered buildings*.

Y6.6 Documentation of a building of historic significance (Form G). Not applicable for *Tier 2 covered buildings*.

Y6.7 Application for exemption certificate (Form H). Apply for an exemption certificate by submitting the following documentation in the form specified by the AHJ. The application must include the following:

1. Building identification:
 - a. Washington state building ID;
 - b. County;
 - c. County parcel number(s);
 - d. Portfolio manager property ID number;
 - e. Property name;
 - f. Parent property name;
 - g. Address 1 (street);
 - h. Address 2;
 - i. City;
 - j. State;
 - k. Postal code.
2. Contact information:
 - a. *Building owner* name(s);
 - b. Contact name;
 - c. Address 1 (street);
 - d. Address 2;
 - e. City;
 - f. State/Province;
 - g. Country;
 - h. Postal code;
 - i. Telephone number;
 - j. Email address.
3. *Building* information:
 - a. Primary *building* activity from Table 7-1, or a description of the nonlisted *building* type;
 - b. *Building gross floor area*;
 - c. *Building gross conditioned floor area*.
4. Reason for exemption: Based on exemptions listed in Section Y4.1(b). A list all of documents enclosed and any facts in support of this application. Provide at least two of the acceptable documents listed below:
 - a. Municipal or county records;
 - b. Documents from a *qualified person*;
 - c. Construction permit;
 - d. Certificate of occupancy or application for certificate of occupancy;
 - e. Demolition permit;
 - f. Financial statements such as statement of assets; liabilities, capital, and surplus, statement of revenue and expenses; or statement of cash flow;

g. A letter from the *building owner* stating facts and explaining financial hardships;

h. Other documentation approved by the *AHJ*.

5. Signature and statement of *building owner* stating that the authorized representative of the *building* affirm and attest to the accuracy, truthfulness, and completeness of the statements of material fact provided in this form.

Y3. Section 7—Tables as modified by Washington state.

See Normative Annex Z - Washington State Reporting Requirements for:

- **Table 7-1 Building Activity Types/Activities**
- **Table 7-2a Building Activity Site Energy Targets (EUI_t1) (I-P**

Units)

- **Table 7-3 Building Operating Shifts Normalization Factor**
- **Table 7-4 Building Activity Type Definitions Table**

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WSR 23-21-105
PROPOSED RULES
BUILDING CODE COUNCIL
 [Filed October 18, 2023, 10:35 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-12-042.

Title of Rule and Other Identifying Information: Chapter 51-11R WAC, Amendment of the 2021 Washington State Energy Code (WSEC), Residential Provisions.

Hearing Location(s): On November 21, 2023, at 10 a.m. - 2 p.m., at Yakima City Council Chambers, 129 North 2nd Street, Yakima, WA 98901; and on November 22, 2023, at 10 a.m. - 2 p.m., at DES Presentation Room (1213), 1500 Jefferson Street S.E., Olympia, WA 98504. The meetings may be accessed in person or via Zoom or conference call. The Zoom link and phone are provided in the agenda link at sbcc.wa.gov, as are the instructions and guidelines for providing testimony.

Date of Intended Adoption: November 28, 2023.

Submit Written Comments to: State Building Code Council, P.O. Box 41449, Olympia, WA 98504-1449, email sbcc@des.wa.gov, by November 22, 2023.

Assistance for Persons with Disabilities: Contact Annette Harworth, phone 360-407-9255, email sbcc@des.wa.gov, by November 16, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The building code council (council) is entering rule making to modify sections in the commercial and residential energy codes to address legal uncertainty stemming from the decision in *California Restaurant Association (CRA) v. City of Berkeley* recently issued by the ninth circuit court of appeals. While the requirements in the 2021 WSEC are not exactly analogous to the Berkeley prohibition on gas infrastructure, the council moved forward to address the ruling expanding the scope of the Energy Policy and Conservation Act of 1975 (EPCA) preemption provisions. The council sought public input on areas where the code may be impacted by a preemption issue and developed a proposed rule addressing those areas while retaining the efficiency gains made towards the goal of RCW 19.27A.160. The proposed rule also makes some editorial corrections to the previously filed 2021 residential energy code.

Proposed Changes to the 2021 Washington State Energy Code, Residential Provisions:

| | PROPOSED SECTION AND TITLE | TYPE OF CHANGE | DESCRIPTION |
|----|---|----------------|--|
| 1. | Chapter 51-11RWAC title for WSEC, Residential Provisions. | Editorial | The title was corrected to the 2021 edition. |
| 2. | R101.1 Title. | Editorial | The effective date was changed to March 15, 2024, consistent with the amendatory rule filed under WSR 23-20-022. |
| 3. | R104.1 Fees. | | The internal section reference was corrected. |
| 4. | R105.2 Required inspections. | Editorial | The internal section references were corrected. |
| 5. | R108.1 Referenced codes and standards. | Editorial | Internal chapter and section references were corrected. |
| 6. | Advanced Framed Walls. | Editorial | The reference to Appendix A was corrected to point to the commercial provisions. |

| | PROPOSED SECTION AND TITLE | TYPE OF CHANGE | DESCRIPTION |
|-----|--|----------------|--|
| 7. | R302.2 Exterior design conditions. | Editorial | The internal appendix reference was corrected. |
| 8. | R402.1.1 Vapor retarder. | Editorial | The internal section reference was corrected. |
| 9. | Table R402.1.2 Insulation and fenestration requirements by component. | Editorial | The U-factor for above grade wall was corrected. It was mistakenly left unchanged after the changes from the 2021 International Energy Conservation Code were incorporated. This will correlate to the change made to the wood frame Wall R-value. |
| 10. | Table R402.1.3 Insulation minimum R-values and fenestration requirements by components. | Editorial | The reference to Appendix A in Footnote A was corrected to point to the commercial provisions. |
| 11. | R402.3 Fenestration. | Editorial | The internal section reference was corrected. |
| 12. | R402.3.5 Combustion air openings. | Editorial | The redundant reference to climate zones was removed and the section references in Exception 2 were clarified. |
| 13. | R404.2 Air leakage. | Editorial | The internal section reference was corrected. |
| 14. | R402.4.1.2 Testing. | Editorial | Correction of a typographical error. |
| 15. | R402.4.2 Air leakage of fenestration; R402.4.3 Recessed lighting; R402.4.4 Electrical and communication outlet boxes. | Editorial | Section numbering was corrected. |
| 16. | Table R402.4.1.1 Air barrier and insulation installation. | Editorial | Section references under "Basement, crawlspace and slab foundation" and "Recessed lighting" were corrected. |
| 17. | R403.3.1 Ducts located outside conditioned space. | Editorial | Correction of a typographical error. |
| 18. | R403.3.3.1 Effective R-value of deeply buried ducts. | Editorial | Updated the text to reference the correct title for Section R405. |
| 19. | R403.5.5 Water heater installation location. | EPCA | Added three new exceptions to correlate with the allowance of other types of water heaters besides heat pump water heaters. |
| 20. | 403.5.6 Water heater insulation. | EPCA | Changed out reference from "electric" to "tank-type" water heater. |
| 21. | R403.5.7: | EPCA | Removed the section requiring the installation of a heat pump water heater and renumbered subsequent section. |
| 22. | R403.13: | EPCA | Removed the section requiring the installation of a heat pump space heater. |
| 23. | R405.2 Performance based compliance. | EPCA | Added some missing text to the first sentence, updated the table reference, and switched the references from carbon emissions to site energy. This changes the performance metric to site energy so that the proposed design will be evaluated against a prescriptive baseline on a one-to-one energy basis in accordance with EPCA (f)(3)(c). |
| 24. | Table R405.2 Mandatory compliance measures for total building performance. | EPCA | The number of the table was corrected since Table R405.2(2) was removed. Reference to R402.2.10.1 was removed as this section does not exist in WSEC. References to R403.5.7 and R403.13 were removed, as these sections were removed from the WSEC. |
| 25. | Table R405.2(2) Carbon emissions factors. | EPCA | This table was removed from the code as a step to change the performance metric from carbon emissions to site energy. |
| 26. | R405.3 Documentation. | Editorial | The internal section reference was corrected. |

| | PROPOSED SECTION AND TITLE | TYPE OF CHANGE | DESCRIPTION |
|-----|---|--------------------|--|
| 27. | Table R405.4.1(1) Specifications for the standard reference and proposed design. | Editorial | The table number was corrected. Section references under "Heating systems" and "Cooling systems" were corrected. A typographical error in "Service water heating" was corrected. |
| 28. | Table R405.4.2(2) Default distribution system efficiencies for proposed design. | Editorial | The table number was corrected. |
| 29. | R405.5.1 Minimum capabilities. | Editorial | An internal section reference was corrected. |
| 30. | Table R406.2 Energy Equalization Credits. | EPCA | The table title was changed to reflect the energy difference of compliant heating equipment and the baseline moved from heat pump heating to a combustion heating system with the credits redistributed to account for relative site energy use. |
| 31. | R406.3 Additional energy efficiency requirements. | EPCA | With the move from a heat pump to a combustion heating system baseline, the required credits to be achieved were adjusted to account for the relevant efficiency losses to the baseline. |
| 32. | Table R406.3 Energy Credits. | EPCA | The envelope credit and air leakage options were adjusted to allow for the greater impact on efficiency with the change to a combustion heating system baseline. Additional options were added for high performance combustion heating systems and service water heating. A typographical error was corrected in Option 6.1. |
| 33. | R501.6 Historic buildings. | Editorial | A typographical error was corrected. |
| 34. | R502.1 General. | Editorial | The internal section references were corrected. |
| 35. | R502.3.1.1 Existing ceilings with attic spaces. | Editorial | The metric conversion was corrected. |
| 36. | R503.1.1 Building envelope. | Editorial | Internal section references were corrected. |
| 37. | R503.1.2 Heating and cooling systems. | EPCA | Exception 3, referring to the removed Section R403.13, was deleted. |
| 38. | R503.1.3 Service hot water systems. | EPCA | Exception 2, referring to the removed Section R403.5.7 language, was deleted. |
| 39. | Chapter 6 Referenced standards. | Editorial and EPCA | Cited section references were updated and typographical errors corrected. Two new gas appliance standards and one gas water heater standard were added as referenced in Table R406.3. |

Reasons Supporting Proposal: The proposal addresses EPCA of 1975 preemption issues (42 U.S.C. § 6201 *et seq.*) as interpreted in the recent United States court of appeals for the ninth circuit ruling in *CRA v. City of Berkeley* and corrects editorial errors within the rule.

Statutory Authority for Adoption: RCW 19.27A.020, 19.27A.045, 19.27A.160.

Statute Being Implemented: Chapter 19.27A RCW.

Rule is necessary because of federal law, [No information supplied by agency].

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: The council is still awaiting the modeling to be completed to establish the credit values for one of the new options (5.8) in Table R406.3. The results of the modeling will be submitted as part of the public testimony on this proposed rule.

Name of Proponent: Washington state building code council and various stakeholders, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Krista Braaksma, 1500 Jefferson [Street] S.E., P.O. Box 41449, Olympia, WA, 360-407-9278; Enforcement: Local jurisdictions.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Stoyan Bumbalov, P.O. Box 41449, Olympia, WA 98504-1449, phone 360-407-9255, email sbcc@des.wa.gov.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect.

Explanation of exemptions: Those portions of the rule noted as "editorial" in the Type of Change column in the description of the rule are exempt from the Regulatory Fairness Act (RFA) as corrections or clarifications of language within a previously adopted rule.

Scope of exemption for rule proposal:

Is partially exempt:

Explanation of partial exemptions: Those portions of the rule that are exempt from RFA are those noted as "Editorial" in the Type of Change column in the description of the rule. These changes correct errors in the previously filed rule.

The proposed rule does impose more-than-minor costs on businesses.

Small Business Economic Impact Statement

There are costs imposed by the proposed rules, but the costs do not fall disproportionately on small businesses. These rules will not affect the distribution of impacted work, whether small businesses are doing the work or not. The rules do not impact employment, reporting, or recordkeeping.

Description: The council is filing a proposed rule to address concerns that the 2021 WSEC: Chapter 51-11R WAC may violate federal preemption on some requirements within the code. In light of the recent ninth circuit opinion on *CRA v. Berkeley*, the council asked for proposals to address areas of concern. The proposed amendments to chapter 51-11R WAC include the removal of provisions that were possible areas of violation and addition of more credit options in light of the expansion of allowable equipment under the proposed rule. The costs associated with this rule are related to the increased number of additional energy efficiency credits required when using combustion heating equipment to maintain the same level of efficiency gains made under the original requirements of the 2021 WSEC. In moving the baseline minimum equipment from a heat pump to a combustion heating system, the change in efficiency level resulted in an increased number of necessary efficiency credits. For heat pump systems, this change was zeroed out by the additional equalization credits awarded under Table R406.3.

Professional Services: Washington has had a statewide building code in effect since 1974. The local enforcement authority having jurisdiction administers the codes through the building and/or fire departments. Administrative procedures for state building code compliance are established and will not be changed by the update to the current building codes. Small businesses will employ the same types of

professional services for the design and construction of buildings and systems to comply with the state building code.

The proposed rule updates the state building code and does not require additional equipment, supplies, labor, or other services. Services need to comply with the building code as required by the local authority having jurisdiction.

Costs of Compliance for Businesses: The majority of the proposed rule will not incur any increased cost for compliance, as it eliminates requirements rather than imposing new requirements. Any costs are associated with the choice of installation of fuel-fired combustion systems over heat pump systems.

Loss of Sales or Revenue: The proposed rules make the state code for building construction consistent with national standards. Businesses with new products or updated testing or design standards are recognized in the updated building code. For these businesses, there will be a gain in sales and revenue.

The results of reduced energy use in buildings include avoiding the need for new power generation, reducing environmental impact, and providing local employment. The legislative findings state that energy efficiency is the cheapest, quickest, and cleanest way to meet rising energy needs, confront climate change, and boost our economy.

Cost of Compliance for Small Businesses: The majority of businesses affected by the updates to the building codes are small businesses; over 95 percent of those listed in the construction and related industries have under 50 employees. The costs per employee are comparable between the largest businesses and the majority of small businesses. The cost to comply with the updated codes is not a disproportionate impact on small business. The cost will vary depending on the options selected to comply with the requirements of Section R406, and will only impact those selecting to use combustion heating equipment. The options selected would depend on the design of the dwelling and any specific features necessary to achieve the desired design and function. The associated option costs are applicable to all construction under WSEC, Residential and not specific for small business or combustion equipment use.

Total measure costs by single family building prototypes:

| Option-Description | Gas Credit Value | HP Credit Value | Weighted Measure Cost | Prototypes Weight % by Floor Area | | | |
|------------------------------|------------------|-----------------|-----------------------|-----------------------------------|-----------|-----------|-----------|
| | | | | 1344 | 2200 | 2688 | 5000 |
| | | | | 15% | 72% | 11% | 2% |
| 1.1 - U-.24 Glaze | 0.5 | 0.5 | \$ 1,730 | \$ 991 | \$ 1,790 | \$ 1,987 | \$ 3,688 |
| 1.2 - U-.20 Glaze | 1 | 1 | \$ 2,537 | \$ 1,454 | \$ 2,625 | \$ 2,914 | \$ 5,409 |
| 1.3 - 5% UA reduc | 0.5 | 0.5 | \$ 1,261 | \$ 955 | \$ 1,270 | \$ 1,762 | \$ 476 |
| 1.4 - 15% UA reduc | 1 | 1 | \$ 3,263 | \$ 1,925 | \$ 3,255 | \$ 4,676 | \$ 5,802 |
| 1.5 - 22.5% UA reduc | 2 | 1.5 | \$ 4,721 | \$ 2,938 | \$ 4,850 | \$ 5,735 | \$ 7,852 |
| 1.6 - 30% UA reduc | 3 | 2.5 | \$ 11,235 | \$ 6,819 | \$ 12,095 | \$ 10,587 | \$ 16,991 |
| 2.1 - 2 ACH, HRV | 1 | 0.5 | \$ 2,264 | \$ 1,395 | \$ 2,284 | \$ 2,790 | \$ 5,190 |
| 2.2 - 1.5 ACH, HRV | 1.5 | 1 | \$ 5,411 | \$ 3,334 | \$ 5,457 | \$ 6,667 | \$ 12,402 |
| 2.3 - 0.6 ACH, HRV | 2 | 1.5 | \$ 6,988 | \$ 4,306 | \$ 7,048 | \$ 8,612 | \$ 16,019 |
| 3.1a - Furnace | 1 | 1 | \$ 252 | \$ 252 | \$ 252 | \$ 252 | \$ 252 |
| 3.2a - 9.5 HSPF HP | 0.5 | 0.5 | \$ 1,388 | \$ 1,388 | \$ 1,388 | \$ 1,388 | \$ 1,388 |
| 3.3a - GSHP | 1.5 | 1.5 | \$ 11,034 | \$ 10,900 | \$ 10,900 | \$ 10,900 | \$ 17,600 |
| 3.4 - DHP | 1.5 | 1.5 | \$ 1,530 | \$ 1,530 | \$ 1,530 | \$ 1,530 | \$ 1,530 |
| 3.5a - 11.0 HSPF HP | 1 | 1 | \$ 1,530 | \$ 1,530 | \$ 1,530 | \$ 1,530 | \$ 1,530 |
| 3.6a - DHP (15% elec) | 2 | 2 | \$ 5,901 | \$ 5,901 | \$ 5,901 | \$ 5,901 | \$ 5,901 |
| 4.1 - Deeply buried | 1 | 0.5 | \$ - | \$ - | \$ - | \$ - | \$ - |
| 4.2 - HVAC inside | 1.5 | 1 | \$ 328 | \$ 328 | \$ 328 | \$ 328 | \$ 328 |
| 5.1 - DWR | 0.5 | 0.5 | \$ 437 | \$ 437 | \$ 437 | \$ 437 | \$ 437 |
| 5.2 - 0.80 gas DHW | 0.5 | 0.5 | \$ 640 | \$ 640 | \$ 640 | \$ 640 | \$ 640 |
| 5.3 - 0.91 gas DHW, GSHP | 1 | 1 | \$ 1,009 | \$ 1,009 | \$ 1,009 | \$ 1,009 | \$ 1,009 |
| 5.4 - Tier III HPWH | 2 | 2 | \$ 955 | \$ 955 | \$ 955 | \$ 955 | \$ 955 |
| 5.5 - CO2 HPWH | 2.5 | 2.5 | \$ 3,824 | \$ 3,824 | \$ 3,824 | \$ 3,824 | \$ 3,824 |
| 6.1 - Solar pV | 1 | 1 | \$ 5,040 | \$ 5,040 | \$ 5,040 | \$ 5,040 | \$ 5,040 |
| 7.1 - ES Appl+ventless Dryer | 0.5 | 0.5 | \$ 505 | \$ 505 | \$ 505 | \$ 505 | \$ 505 |

Total measure costs for multifamily prototypes:

| Option-Description | Credit Value | Measure Cost |
|------------------------------|--------------|--------------|
| 1.1 - U-.24 Glaze | 0.5 | --- |
| 1.2 - U-.20 Glaze | 1 | \$ 887 |
| 1.3 - 5% UA reduc | --- | \$ 173 |
| 1.4 - 15% UA reduc | 1 | \$ 947 |
| 1.5 - 22.5% UA reduc | 1.5 | \$ 1,383 |
| 1.6 - 30% UA reduc | 2 | \$ 3,779 |
| 2.1 - 2 ACH, HRV | 0.5 | \$ 851 |
| 2.2 - 1.5 ACH, HRV | 1 | \$ 2,034 |
| 2.3 - 0.6 ACH, HRV | 1.5 | \$ 2,627 |
| 3.1a - Furnace | 1 | \$ 252 |
| 3.2a - 9.5 HSPF HP | --- | --- |
| 3.3a - GSHP | 1 | --- |
| 3.4 - DHP | 2 | \$ 3,060 |
| 3.5a - 11.0 HSPF HP | --- | \$ - |
| 3.6a - DHP (15% elec) | 3 | \$ 5,245 |
| 4.1 - Deeply buried | 0.5 | \$ - |
| 4.2 - HVAC inside | --- | --- |
| 5.1 - DWR | --- | \$ 505 |
| 5.2 - 0.80 gas DHW | 0.5 | --- |
| 5.3 - 0.91 gas DHW, GSHP | 1 | --- |
| 5.4 - Tier III HPWH | 2.5 | \$ 318 |
| 5.5 - CO2 HPWH | 3 | \$ 1,275 |
| 6.1 - Solar pV | 1 | \$ 5,040 |
| 7.1 - ES Appl+ventless Dryer | 1.5 | \$ 505 |

Small Businesses Involved in the Development of the Rule: The council conducted open public meetings of the energy code technical advisory group (TAG), available via zoom and telephone conference bridge, and allowed comment on every item on every agenda.

List of Industries: Below is a list of industries required to comply with the commercial energy code:

| 2017 Industry NAICS Code | NAICS Code Title | Minor Cost Estimate | 1% of Avg Annual Payroll | 0.3% of Avg Annual Gross Business Income |
|--------------------------|--|---------------------|--|---|
| 236116 | New Multifamily Housing Construction (except For-Sale Builders) | \$32,067.43 | \$17,160.94* 2020 Dataset pulled from USBLS | \$32,067.43 2020 Dataset pulled from DOR |
| 236118 | Residential Remodelers | \$1,457.74 | \$1,457.74* 2020 Dataset pulled from USBLS | \$901.20 2020 Dataset pulled from DOR |
| 238150 | Glass and Glazing Contractors | \$5,255.36 | \$9,574.95 2019 Dataset pulled from CBP | \$5,255.36 2020 Dataset pulled from DOR |
| 238160 | Roofing Contractors | \$3,589.99 | \$5,007.86 2019 Dataset pulled from CBP | \$3,589.99 2020 Dataset pulled from DOR |
| 238170 | Siding Contractors | \$1,905.61 | \$2,485.86 2019 Dataset pulled from CBP | \$1,905.61 2020 Dataset pulled from DOR |
| 238210 | Electrical Contractors and Other Wiring Installation Contractors | \$5,941.60 | \$9,599.33 2019 Dataset pulled from CBP | \$5,941.60 2020 Dataset pulled from DOR |
| 238220 | Plumbing; Heating; and Air-Conditioning Contractors | \$5,353.76 | \$11,047.00 2019 Dataset pulled from CBP | \$5,353.76 2020 Dataset pulled from DOR |
| 238290 | Other Building Equipment Contractors | \$4,335.21 | \$16,142.07 2019 Dataset pulled from CBP | \$4,335.21 2020 Dataset pulled from DOR |
| 238310 | Drywall and Insulation Contractors | \$3,725.66 | \$9,461.67 2019 Dataset pulled from CBP | \$3,725.66 2020 Dataset pulled from DOR |
| 238990 | All Other Specialty Trade Contractors | \$3,585.74 | \$3,677.28 2019 Dataset pulled from CBP | \$3,585.74 2020 Dataset pulled from DOR |
| 321911 | Wood Window and Door Manufacturing | \$45,151.12 | \$18,811.08 2020 Dataset pulled from ESD | \$45,151.12 2020 Dataset pulled from DOR |
| 332321 | Metal Window and Door Manufacturing | \$26,369.28 | \$14,505.40 2020 Dataset pulled from ESD | \$26,369.28 2020 Dataset pulled from DOR |
| 332322 | Sheet Metal Work Manufacturing | \$23,337.23 | \$23,337.23 2020 Dataset pulled from ESD | \$16,556.52 2020 Dataset pulled from DOR |
| 335129 | Other Lighting Equipment Manufacturing | \$6,281.32 | \$6,281.32 2020 Dataset pulled from ESD | \$2,494.40 2020 Dataset pulled from DOR |
| 423720 | Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers | \$24,486.53 | \$16,589.10 2020 Dataset pulled from ESD | \$24,486.53 2020 Dataset pulled from DOR |
| 541310 | Architectural Services | \$9,221.65 | \$9,221.65 2020 Dataset pulled from ESD | \$3,738.99 2020 Dataset pulled from DOR |

| 2017 Industry NAICS Code | NAICS Code Title | Minor Cost Estimate | 1% of Avg Annual Payroll | 0.3% of Avg Annual Gross Business Income |
|--------------------------|----------------------|---------------------|---|--|
| 541330 | Engineering Services | \$14,801.92 | \$14,801.92 2020 Dataset pulled from USBLS | \$7,177.43 2020 Dataset pulled from DOR |

A copy of the statement may be obtained by contacting Stoyan Bum-balov, P.O. Box 41449, Olympia, WA 98504-1449, phone 360-407-9255, email sbcc@des.wa.gov.

September 15, 2023
 Tony Doan
 Council Chair

OTS-5010.1

**Chapter 51-11R WAC
 STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE ((2018)) 2021 EDI-TION OF THE INTERNATIONAL ENERGY CONSERVATION CODE, RESIDENTIAL**

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-01-047], filed 1/3/23, 6/7/23, and 9/25/23 [12/9/19], effective 3/15/24 [7/1/20])

WAC 51-11R-10100 Section R101—Scope and general requirements.

R101.1 Title. This code shall be known as the *Washington State Energy Code-Residential*, and shall be cited as such. It is referred to herein as "this code."

The 2021 edition of the *Washington State Energy Code* is hereby adopted. The *Washington State Energy Code* adopted under chapter 51-11R WAC shall become effective in all counties and cities of this state on ((July 1, 2023)) March 15, 2024.

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. Residential *sleeping units*, Group I-1, Condition 2 assisted living facilities licensed by Washington state under chapter 388-78A WAC and Group I-1, Condition 2 residential treatment facilities licensed by Washington state under chapter 246-337 WAC shall utilize the commercial building sections of the energy code regardless of the number of stories of height above grade plane.

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 Mixed residential and commercial buildings. Where a building includes both *residential* building and *commercial* building portions, each portion shall be separately considered and meet the applicable provisions of the WSEC - Commercial or WSEC - Residential Provisions.

R101.5 Compliance. *Residential buildings* shall meet the provisions of WSEC - Residential Provisions. *Commercial buildings* shall meet the provisions of WSEC - 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-10100, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-10100, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, and chapters 19.27, 19.27A, and 34.05 RCW. WSR 17-17-160, § 51-11R-10100, filed 8/23/17, effective 10/1/17. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-10100, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-10100, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-21-081], filed 1/3/23, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11R-10400 Section R104—Fees.

R104.1 Fees. A permit shall not be issued until the fees prescribed in Section ((R107.2)) R104.2 have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

R104.2 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.

R104.3 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.

R104.4 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.

R104.5 Refunds. The *code official* is authorized to establish a refund policy.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-10400, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 20-21-081, § 51-11R-10400, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-10400, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-10400, filed 5/2/17, effective 6/2/17; WSR 16-02-127, § 51-11R-10400, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-10400, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [13-04-055], filed 1/3/23, 6/7/23, and 9/25/23 [2/1/13], effective 3/15/24 [7/1/13])

WAC 51-11R-10500 Section R105—Inspections.

R105.1 General. Construction or work for which a permit is required shall be subject to inspection by the *code official* or his or her designated agent, and such construction or work shall remain visible and able to be accessed for inspection purposes until *approved*. It shall be the duty of the permit applicant to cause the work to remain visible and able to be accessed for inspection purposes. Neither the *code official* nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material, product, system or building component required to allow inspection to validate compliance with this code.

R105.2 Required inspections. The *code official* or his or her designated agent, upon notification, shall make the inspections set forth in Sections ((R104.2.1 through R104.2.5)) R105.2.1 through R105.2.5.

R105.2.1 Footing and foundation inspection. Inspections associated with footings and foundations shall verify compliance with the code as to R-value, location, thickness, depth of burial and protection of insulation as required by the code and approved plans and specifications.

R105.2.2 Framing and rough-in inspection. Inspections at framing and rough-in shall be made before application of interior finish and shall verify compliance with the code as to types of insulation and corresponding R-values and their correct location and proper installation; fenestration properties (*U*-factor and SHGC) and proper installation; and air leakage controls as required by the code and approved plans and specifications.

R105.2.2.1 Wall insulation inspection. The *code 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.

R105.2.3 Plumbing rough-in inspection. Inspections at plumbing rough-in shall verify compliance as required by the code and approved plans and specifications as to types of insulation and corresponding R-values and protection, and required controls.

R105.2.4 Mechanical rough-in inspection. Inspections at mechanical rough-in shall verify compliance as required by the code and approved plans and specifications as to installed HVAC equipment type and size, required controls, system insulation and corresponding R-value, system air leakage control, programmable thermostats, dampers, whole-house ventilation and minimum fan efficiency.

EXCEPTION: Systems serving multiple dwelling units shall be inspected in accordance with Section C104.2.4.

R105.2.5 Final inspection. The building shall have a final inspection and not be occupied until *approved*.

R105.3 Reinspection. A building shall be reinspected when determined necessary by the *code official*.

R105.4 Approved inspection agencies. The *code official* is authorized to accept reports of third-party inspection agencies not affiliated with the building design or construction, provided such agencies are *approved* as to qualifications and reliability relevant to the building components and systems they are inspecting.

R105.5 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.

R105.6 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-10500, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-10500, filed 2/1/13, effective 7/1/13.]

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 23-02-060, 23-12-102, and 23-20-022 [16-02-127], filed 1/3/23, 6/7/23, and 9/25/23 [1/6/16], effective 3/15/24 [7/1/16])

WAC 51-11R-10800 Section R108—Referenced standards.

R108.1 Referenced codes and standards. The codes and standards referenced in this code shall be those listed in Chapter ((5)) 6, 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)) R108.1.1 and R108.1.2.

R108.1.1 Conflicts. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

R108.1.2 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.

R108.2 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.

R108.3 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-10800, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-10800, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-10800, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-01-047], filed 1/3/23, 6/7/23, and 9/25/23 [12/9/19], effective 3/15/24 [7/1/20])

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.

ACCESS (TO). That which enables a device, appliance, or equipment to be reached by *ready access* or by a means that first requires the removal or movement of a panel or similar obstruction.

ADDITION. An extension or increase in the *conditioned space* floor area, number of stories 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)~~) of chapter 51-11C WAC.)

AIR BARRIER. One or more materials joined together in a continuous manner to restrict or prevent the passage of air through the building thermal envelope and its assemblies.

ALTERATION. Any construction, retrofit or renovation to an existing structure other than repair or addition. Also, a change in a building, electrical, gas, mechanical or plumbing system that involves an extension, addition or change to the arrangement, type or purpose of the original installation.

APPROVED. Acceptable to the *code official*.

APPROVED AGENCY. An established and recognized agency that is regularly engaged in conducting tests or furnishing inspection services, or furnishing product certification, where such agency has been approved by the *code official*.

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").

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-20201, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-20201, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-20201, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-20201, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 13-04-055, filed 2/1/13, effective 7/1/13)

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 RC.

[Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-30200, filed 2/1/13, effective 7/1/13.]

AMENDATORY SECTION (Amending WSR 20-01-047, filed 12/9/19, effective 7/1/20)

WAC 51-11R-30312 Table R303.1.3(2)—Default opaque door U-factors.

TABLE R303.1.3(2)
DEFAULT OPAQUE 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 |
|---|------------------------|----------------|--------------------------------------|--------------------------------------|---|
| SWINGING DOORS (Rough opening - 38 in. x 82 in.) | | | | | |
| Slab Doors | | | | | |
| Wood slab in wood frame ^a | 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 ^a | 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 ^b | 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 R303.1.3(1) | | | | |
| Cardboard honeycomb slab with metal edge in steel frame ^b | 0.61 | | | | |
| Style and Rail Doors | | | | | |
| Sliding glass doors/French doors | Use Table R303.1.3(1) | | | | |
| Site-Assembled Style and Rail Doors | | | | | |
| 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) of chapter 51-11C WAC may also be used if applicable.

^a Thermally broken sill (add 0.03 for nonthermally broken sill).

b Nonthermally broken sill.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-30312, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27.020, and 19.27.074. WSR 14-24-123, § 51-11R-30312, filed 12/3/14, effective 1/3/15. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-30312, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40210 Section R402.1—General.

R402.1 General. The *building thermal envelope* shall meet the requirements of Sections R402.1.1 through R402.1.6.

EXCEPTION: 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 ft² (10.7 W/m²) or 1.0 watt/ft² 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.

R402.1.1 Vapor retarder. Wall assemblies in the *building thermal envelope* shall comply with the vapor retarder requirements of Section R702.7 of the *International Residential Code* or Section ~~((1405.3))~~ 1404.3 of the *International Building Code*, as applicable.

R402.1.2 Insulation and fenestration criteria. The *building thermal envelope* shall meet the requirements of Table R402.1.2 based on the climate zone specified in Chapter 3. Assemblies shall have a U-factor equal to or less than that specified in Table R402.1.2. Fenestration shall have a U-factor equal to or less than specified in Table R402.1.2.

R402.1.3 R-value alternative. Assemblies with R-value of insulation materials equal to or greater than that specified in Table R402.1.3 shall be an alternative to the U-factor in Table R402.1.2.

R402.1.4 R-value computation. *Cavity insulation* alone shall be used to determine compliance with the *cavity insulation* R-value requirement in Table R402.1.3. Where *cavity insulation* is installed in multiple layers, the R-values of the *cavity insulation* layers shall be summed to determine compliance with the *cavity insulation* R-value requirements. The manufacturer's settled R-value shall be used for blown insulation. *Continuous insulation* (ci) alone shall be used to determine compliance with the continuous insulation R-value requirements in Table R402.1.3. Where *continuous insulation* is installed in multiple layers, the R-values of the *continuous insulation* layers shall be summed to determine compliance with the *continuous insulation* R-value requirements. Computed R-values shall not include an R-value for other building materials or air films. Where insulated siding is used for the purpose of complying with the continuous insulation requirements of Table R402.1.3, the manufacturer's labeled R-value for insulated siding shall be reduced by R-0.6.

R402.1.5 Total UA alternative. If the proposed *building thermal envelope* UA is less than or equal to the target UA, the building shall be considered in compliance with Table R402.1.2. The proposed UA shall be calculated in accordance with Equation 2. The target UA shall be calculated in accordance with Equation 1. *U*-factors shall be determined as specified in Section R402.1.6. In addition to UA compliance, the maximum fenestration *U*-factors of Section R402.5 shall be met.

R402.1.6 U-factor reference and calculations. 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.

Fenestration *U*-factors shall comply with Section R303.1.3, Fenestration product rating.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40210, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40210, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-40210, filed 5/2/17, effective 6/2/17. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40210, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40210, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

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WAC 51-11R-40211 Table R402.1.2—Insulation and fenestration requirements by component.

TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a

| CLIMATE ZONE 5 AND MARINE 4 | |
|--|-------------------------------|
| Fenestration <i>U</i> -factor ^b | 0.30 |
| Skylight <i>U</i> -factor | 0.50 |
| Ceiling <i>U</i> -factor | 0.024 |
| Above-Grade Wall <i>U</i> -factor | ((0.056)) 0.045 |
| Floor <i>U</i> -factor | 0.029 |
| Slab on Grade <i>F</i> -factor | 0.54 |
| Below Grade 2' Depth | |

| CLIMATE ZONE 5 AND MARINE 4 | |
|-----------------------------|-------|
| Wall <i>U</i> -factor | 0.042 |
| Slab <i>F</i> -factor | 0.59 |
| Below Grade 3.5' Depth | |
| Wall <i>U</i> -factor | 0.040 |
| Slab <i>F</i> -factor | 0.56 |
| Below Grade 7' Depth | |
| Wall <i>U</i> -factor | 0.035 |
| Slab <i>F</i> -factor | 0.50 |

- a *U*-factors or *F*-factors shall be obtained from measurement, calculation, or an approved source or as specified in Section R402.1.5.
- b A maximum *U*-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the *International Residential Code*.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40211, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40211, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-40211, filed 5/2/17, effective 6/2/17. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40211, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.025, 19.27A.045, and 19.27.074. WSR 13-20-121, § 51-11R-40211, filed 10/1/13, effective 11/1/13. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40211, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40213 Table R402.1.3—Insulation minimum *R*-values and fenestration requirements by components.

TABLE R402.1.3
INSULATION MINIMUM *R*-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENTS^a

| Climate Zone 5 and Marine 4 | |
|---|--------------------|
| Fenestration ^{b,j} <i>U</i> -Factor | 0.30 |
| Skylight ^b <i>U</i> -Factor | 0.50 |
| Ceiling ^e <i>R</i> -Value | 60 |
| Wood Frame Wall ^{g,i} <i>R</i> -Value | 20+5 or 13+10 |
| Floor <i>R</i> -Value | 30 |
| Below-Grade Wall ^{c,h} <i>R</i> -Value | 10/15/21 int + 5TB |
| Slab ^{d,f} <i>R</i> -Value and Depth | 10, 4 ft. |

For SI: 1 foot = 304.8 mm, ci = continuous insulation, int = intermediate framing.

^a *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 A Table A101.4 of chapter 51-11C WAC shall not be less than the *R*-value specified in the table.

^b The fenestration *U*-factor column excludes skylights.

^c "10/15/21+5TB" 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+5TB" 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. "TB" means R-5 thermal break between floor slab and basement wall.

^d R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.

^e For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.

^f R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.

^g For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for *climate zone 5* of ICC 400.

^h Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

ⁱ The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example "13+10" means R-13 cavity insulation plus R-10 continuous insulation.

^j A maximum *U*-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the *International Residential Code*.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40213, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40213, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40213, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40213, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40230 Section R402.3—Fenestration.

R402.3 Fenestration. In addition to the requirements of Section R402, fenestration shall comply with Sections R402.3.1 through ((R402.3.5)) 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 m²) of glazed fenestration per dwelling unit shall be permitted to be exempt from *U*-factor and SHGC requirements in Section R402.1.2. This exemption shall not apply to the total UA alternative in Section R402.1.5.

R402.3.4 Opaque door exemption. One side-hinged opaque door assembly up to 24 square feet (2.22 m²) in area is exempted from the *U*-factor requirement in Section R402.1.2. This exemption shall not apply to the total UA alternative in Section R402.1.5.

R402.3.5 Combustion air openings. (~~In Climate Zones 3 through 8,~~)
 Where open combustion air ducts provide combustion air to open combustion, space conditioning fuel burning appliances, the appliances and combustion air openings shall be located outside of the *building thermal envelope*, or enclosed in a room isolated from inside the thermal envelope. Such rooms shall be sealed and insulated in accordance with the envelope requirements of Table R402.1.3, where the walls, floors, and ceilings shall meet the minimum of the below-grade wall R-value requirements. The door into the room shall be fully gasketed and any water lines and ducts in the room insulated in accordance with Section R403. The combustion air duct shall be insulated where it passes through conditioned space to a minimum of R-8.

EXCEPTIONS: 1. Direct vent appliances with both intake and exhaust pipes installed continuous to the outside.
 2. Fireplaces and stoves complying with Section(s) R402.3.6 of this code and Section R1006 of the *International Residential Code*.

R402.3.6 Fireplaces. New wood-burning fireplaces shall have tight-fitting flue dampers or doors, and outdoor combustion air. When using tight-fitting doors on factory-built fireplaces listed and labeled in accordance with UL 127, the doors shall be tested and listed for the fireplace. Where using tight-fitting doors on masonry fireplaces, the doors shall be listed and labeled in accordance with UL 907. Gas fireplaces shall comply with the efficiency requirements in Section R403.7.2.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40230, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40230, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40230, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40230, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40240 Section R402.4—Air leakage.

R402.4 Air leakage. The *building thermal envelope* shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through ((R402.4.5)) R402.4.4.

R402.4.1 Building thermal envelope air leakage. The *building thermal envelope* shall comply with Sections R402.4.1.1 through R402.4.1.3. 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 re-

quired 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 for air leakage. Testing shall be conducted in accordance with RESNET/ICC 380, ASTM E779 or ASTM E1827. Test pressure and leakage rate shall comply with Section R402.1.3. A written report of the test results, including verified location and time stamp of the date of the test, shall be signed by the testing agency and provided to the building owner and *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*. Once visual inspection has confirmed air sealing has been conducted in accordance with Table R402.4.1.1, operable windows and doors manufactured by *small business* are permitted to be sealed off at the frame prior to the test.

Testing of single-family dwellings and townhouses shall be conducted in accordance with RESNET/ICC 380. Test pressure and leakage rate shall comply with Section R402.1.3.1.

For Group R-2 occupancies, testing shall be conducted in accordance with ASTM E779, ASTM E1827, or ASTM E3158. Test pressure and leakage rate shall comply with Section R402.1.3.2. The individual performing the air leakage test shall be trained and certified by a certification body that is, at the time of permit application, ((and)) an ISO 17024 accredited certification body including, but not limited to, the Air Barrier Association of America.

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 or interior terminations for continuous ventilation systems and heat recovery ventilators shall be 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.

EXCEPTION: Additions less than 500 square feet of conditioned floor area.

R402.4.1.3 Leakage rate. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) shall comply with Section R402.4.1.3.1. Group R-2 multifamily buildings shall comply with Section R402.4.1.3.2.

R402.4.1.3.1 Dwelling unit leakage rate. The maximum air leakage rate for any dwelling unit under any compliance path shall not exceed 4.0 air changes per hour. Testing shall be conducted with a blower door test at a test pressure of 0.2 inches w.g. (50 Pa).

EXCEPTION: Additions tested with the existing home having a combined maximum air leakage rate of 7 air changes per hour. To qualify for this exception, the date of construction of the existing dwelling must be prior to the 2009 Washington State Energy Code.

R402.4.1.3.2 Group R-2 multifamily building leakage rate. For Group R-2 multifamily buildings, the maximum leakage rate for any *dwelling unit* shall not exceed 0.25 cfm per square foot of the *dwelling unit*

enclosure area. Testing shall be conducted with a blower door at a test pressure of 0.2 inches w.g. (50 Pa). Doors and windows of adjacent *dwelling units* (including top and bottom units) shall be open to the outside during the test.

~~(R402.4.3)~~ R402.4.2 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/m²), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m²), 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*. 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.

~~(R402.4.5)~~ R402.4.3 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.

~~(R402.4.6)~~ R402.4.4 Electrical and communication outlet boxes (air-sealed boxes). Electrical and communication outlet boxes installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. Electrical and communication outlet boxes shall be tested in accordance with NEMA OS 4, *Requirements for Air-Sealed Boxes for Electrical and Communication Applications*, and shall have an air leakage rate of not greater than 2.0 cubic feet per minute (0.944 L/s) at a pressure differential of 1.57 psf (75 Pa). Electrical and communication outlet boxes shall be marked "NEMA OS 4" or "OS 4" in accordance with NEMA OS 4. Electrical and communication outlet boxes shall be installed per the manufacturer's instructions and with any supplied components required to achieve compliance with NEMA OS 4.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40240, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 20-21-081, § 51-11R-40240, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40240, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40240, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27.020, and 19.27.074. WSR 14-24-123, § 51-11R-40240, filed 12/3/14, effective 1/3/15. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40240, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40241 Table R402.4.1.1—Air barrier and insulation installation.

**TABLE R402.4.1.1
AIR BARRIER, AIR SEALING AND INSULATION INSTALLATION^a**

| COMPONENT | AIR BARRIER CRITERIA | INSULATION CRITERIA |
|--------------------------------|---|---|
| General requirements | <p>A continuous air barrier shall be installed in the building envelope.</p> <p>Breaks or joints in the air barrier shall be sealed.</p> | <p>Air-permeable insulation shall not be used as a sealing material.</p> |
| Cavity insulation installation | | <p>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.</p> <p>Insulation that upon installation readily conforms to available space shall be installed filling the entire cavity and within the manufacturers' density recommendation.</p> |
| Ceiling/attic | <p>The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier sealed.</p> <p>Access openings, drop down stair or knee wall doors to unconditioned attic spaces shall be sealed.</p> | <p>The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.</p> <p>Batt insulation installed in attic roof assemblies may be compressed at exterior wall lines to allow for required attic ventilation.</p> |
| Walls | <p>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. Knee walls shall be sealed.</p> | <p>Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.</p> |
| Windows, skylights and doors | <p>The space between window/door jambs and framing and skylights and framing shall be sealed.</p> | |
| Rim joists | <p>Rim joists shall include an exterior air barrier^b.</p> | <p>Rim joists shall be insulated so that the insulation maintains permanent contact with the exterior rim board^b.</p> |

| COMPONENT | AIR BARRIER CRITERIA | INSULATION CRITERIA |
|---|---|---|
| | The junctions of the rim board to the sill plate and the rim board and the subfloor shall be air sealed. | |
| Floors (including above garage and cantilevered floors) | The air barrier shall be installed at any exposed edge of insulation. | Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking or floor framing cavity insulation shall be permitted to be in contact with the topside of sheathing or continuous insulation installed on the underside of floor framing and extend from the bottom to the top of all perimeter floor framing members. |
| Basement, crawl space, and slab foundations | <p>Exposed earth in unvented crawl spaces shall be covered with a Class I, black vapor retarder with overlapping joints taped.</p> <p>Penetrations through concrete foundation walls and slabs shall be air sealed.</p> <p>Class I vapor retarders shall not be used as an air barrier on below-grade <i>walls</i> and shall be installed in accordance with Section R702.7 of the <i>International Residential Code</i>.</p> | <p>Crawl space insulation, where provided instead of floor insulation, shall be installed in accordance with Section R402.2.10.</p> <p>Conditioned basement foundation wall insulation shall be installed in accordance with Section ((R402.2.8.1)) R402.2.8.</p> <p>Slab on grade floor insulation shall be installed in accordance with Section R402.2.10.</p> |
| Shafts, penetrations | <p>Duct and flue shafts to exterior or unconditioned space shall be air sealed.</p> <p>Utility penetrations of the air barrier shall be caulked, gasketed, or otherwise sealed and shall allow for expansion and contraction of materials and mechanical vibration.</p> | Insulation shall be fitted tightly around utilities passing through shafts and penetrations in the building thermal envelope to maintain required <i>R</i> -value. |
| Narrow cavities | Narrow cavities, of an inch or less, not able to be insulated, shall be air sealed. | Batts in narrow cavities shall be cut to fit and installed to the correct density without any voids or gaps or compression, or 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. | Insulated portions of the garage separation assembly shall be installed in accordance with Sections R303 and R402.2.8. |
| Recessed lighting | Recessed light fixtures installed in the building thermal envelope shall be air sealed in accordance with Section ((R402.4.5)) R402.4.3. | Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated and shall be buried or surrounded with insulation. |
| Plumbing, wiring, or other obstructions | All holes created by wiring, plumbing, or other obstructions in the air barrier assembly shall be air sealed. | 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. Insulation shall be installed to fill the available space and surround wiring, plumbing, or other obstructions, unless the required <i>R</i> -value can be met by installing insulation and air barrier systems completely to the exterior side of the obstructions. |
| Shower/tub on exterior wall | The air barrier installed at exterior walls adjacent to showers and tubs shall separate the wall from the showers and tubs. | Exterior walls adjacent to showers and tubs shall be insulated. |
| Electrical/phone box on exterior wall | The air barrier shall be installed behind electrical or communication boxes or air sealed boxes shall be installed. | |

| COMPONENT | AIR BARRIER CRITERIA | INSULATION CRITERIA |
|----------------------|--|---------------------|
| HVAC register boots | HVAC supply and return register boots shall be sealed to the subfloor, wall covering or ceiling penetrated by the boot. | |
| Concealed sprinklers | When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings. | |

IC = insulation contact.

^a In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

^b Insulation installed in unconditioned/ventilated attic spaces is not required to be enclosed within an air barrier assembly.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40241, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40241, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40241, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40241, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-01-047], filed 1/3/23, 6/7/23, and 9/25/23 [12/9/19], effective 3/15/24 [7/1/20])

WAC 51-11R-40320 Section R403.3—Ducts.

R403.3 Ducts. Ducts and air handlers shall be installed in accordance with Sections R403.3.1 through R403.3.7.

R403.3.1 Ducts located outside conditioned space. Supply and return ducts located outside *conditioned space* shall be insulated to ~~((and))~~ an R-value of not less than R-8 for ducts 3 inches (76 mm) in diameter and larger and not less than R-6 for ducts smaller than 3 inches (76 mm) in diameter. Ducts buried beneath a building shall be insulated as required per this section or have an equivalent thermal distribution efficiency. Ducts within a concrete slab or in the ground shall be insulated to R-10 with insulation designed to be used below grade. Underground ducts utilizing the *thermal distribution efficiency* method shall be listed and labeled to indicate the R-value equivalency.

R403.3.2 Ducts located in conditioned space. For ducts to be considered as being located inside a conditioned space, such ducts shall comply with the following:

1. All duct systems shall be located completely within the *continuous air barrier* and within the *building thermal envelope*.
2. All heating, cooling, and ventilation system components shall be installed inside the conditioned space including, but not limited to, forced air ducts, hydronic piping, hydronic floor heating loops, convectors and radiators. Combustion equipment shall be direct vent or sealed combustion.

3. For forced air ducts, a maximum of 10 linear feet of return ducts and 5 linear feet of supply ducts is permitted to be located outside the conditioned space, provided they are insulated to a minimum of R-8.

3.1. Metallic ducts located outside the conditioned space must have both transverse and longitudinal joints sealed with mastic.

3.2. If flex ducts are used, they cannot contain splices. Flex duct connections must be made with nylon straps and installed using a plastic strapping tensioning tool.

4. Ductwork in floor cavities located over unconditioned space shall comply with all of the following:

4.1. A *continuous air barrier* installed between unconditioned space and the duct.

4.2. Insulation installed in accordance with Section R402.2.7.

4.3. A minimum R-19 insulation installed in the cavity width separating the duct from unconditioned space.

5. Ductwork located within *exterior walls* of the *building thermal envelope* shall comply with the following:

5.1. A continuous air barrier installed between unconditioned space and the duct.

5.2. A minimum R-10 insulation installed in the cavity width separating the duct from unconditioned space.

5.3. The remainder of the cavity insulation shall be fully insulated to the drywall side.

R403.3.3 Ducts buried within ceiling insulation. Where supply and return air ducts are partially or completely buried in ceiling insulation, such ducts shall comply with all of the following:

1. The supply and return ducts shall have an insulation R-value not less than R-8.

2. At all points along each duct, the sum of the ceiling insulation R-value against and above the top of the duct, and against and below the bottom of the duct, shall be not less than R-19, excluding the R-value of the duct insulation.

EXCEPTION: Sections of the supply duct that are less than 3 feet (914 mm) from the supply outlet shall not be required to comply with these requirements.

R403.3.3.1 Effective R-value of deeply buried ducts. Where using ((~~a simulated energy performance analysis~~)) the total building performance compliance option in Section R405, sections of ducts that are: Installed in accordance with Section R403.3.3; located directly on, or within 5.5 inches (140 mm) of the ceiling; surrounded with blown-in attic insulation having an R-value of R-30 or greater and located such that the top of the duct is not less than 3.5 inches (89 mm) below the top of the insulation, shall be considered as having an effective duct insulation R-value of R-25.

R403.3.4 Sealing. 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. For ducts having a static pressure classification of less than 2 inches of water column (500 Pa), additional closure systems shall not be required for continuously welded joints and seams, and locking-type joints and seams of other than the snap-lock and button-lock types.

R403.3.4.1 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.

R403.3.5 Duct testing. Ducts shall be leak tested in accordance with WSU RS-33, using the maximum duct leakage rates specified.

EXCEPTION: A duct air leakage test shall not be required for ducts serving ventilation systems that are not integrated with the ducts serving heating or cooling systems.

A written report of the results shall be signed by the party conducting the test and provided to the *code official*.

R403.3.6 Duct leakage. The total leakage of the ducts, where measured in accordance with Section R403.3.3, shall be as follows:

1. Rough-in test: Total leakage shall be less than or equal to 4.0 cfm (113.3 L/min) per 100 square feet (9.29 m²) 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 3.0 cfm (85 L/min) per 100 square feet (9.29 m²) of conditioned floor area.

2. Postconstruction test: Leakage to outdoors shall be less than or equal to 4.0 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area or total leakage shall be less than or equal to 4.0 cfm (113.3 L/min) per 100 square feet (9.29 m²) 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.

3. Test for ducts within thermal envelope: Where all ducts and air handlers are located entirely within the *building thermal envelope*, total leakage shall be less than or equal to 8.0 cubic feet per minute (226.6 L/min) per 100 square feet (9.29 m²) of conditioned floor area. For forced air ducts, a maximum of 10 linear feet of return ducts and 5 linear feet of supply ducts may be located outside the conditioned space. All metallic ducts located outside the conditioned space must have both transverse and longitudinal joints sealed with mastic. If flex ducts are used, they cannot contain splices. Flex duct connections must be made with nylon straps and installed using a plastic strapping tensioning tool. Ducts located in crawl spaces do not qualify for this exception.

R403.3.7 Building cavities. 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40320, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40320, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-40320, filed 5/2/17, effective 6/2/17. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40320, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40320, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-01-047], filed 1/3/23, 6/7/23, and 9/25/23 [12/9/19], effective 3/15/24 [7/1/20])

WAC 51-11R-40340 Section R403.5—Service hot water systems.

R403.5 Service hot water systems. Energy conservation measures for service hot water systems shall be in accordance with this section. Service water-heating equipment shall meet the requirements of DOE 10 C.F.R. Part 430 Uniform Energy Factor or the equipment shall meet the requirements of Section C404.2.

R403.5.1 Heated water circulation and temperature maintenance systems.

Heated water circulation systems shall be in accordance with Section R403.5.1.1. Heat trace temperature maintenance systems shall be in accordance with Section R403.5.1.2. Automatic controls, temperature sensors and pumps shall be in a location with access. Manual controls shall be in a location with *ready access*.

R403.5.1.1 Circulation systems. Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe. Gravity and thermo-syphon circulation systems are prohibited. Controls automatically turn off the circulation pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.

R403.5.1.1.1 Demand recirculation water systems serving an individual dwelling unit. *Demand recirculation water systems* shall have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance, sensing the presence of a user of a fixture or sensing the flow of hot or tempered water to a fixture fitting or appliance.

R403.5.1.2 Heat trace systems. Electric heat trace systems shall comply with IEEE 515.1 or UL 515. Controls for such systems shall automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy.

R403.5.2 Water volume determination. The volume shall be the sum of the internal volumes of pipe, fittings, valves, meters, and manifolds between the nearest source of heated water and the termination of the fixture supply pipe. Water heaters, circulating water systems, and heat trace temperature maintenance systems shall be considered to be sources of heated water. The volume in the piping shall be determined from Table C404.3.1 in the Washington State Energy Code, Commercial Provisions or Table L502.7 of the *Uniform Plumbing Code*. The volume contained within fixture shutoff valves, within flexible water supply connectors to a fixture fitting and within a fixture fitting shall not be included in the water volume determination. Where heated water is supplied by a recirculating system or heat-traced piping, the volume shall include the portion of the fitting on the branch pipe that supplies water to the fixture.

R403.5.3 Hot water pipe insulation. Insulation for service hot water pipe, both within and outside the conditioned space, shall have a minimum thermal resistance (*R*-value) of R-3.

EXCEPTION: Pipe insulation is permitted to be discontinuous where it passes through studs, joists or other structural members and where the insulated pipes pass other piping, conduit or vents, provided the insulation is installed tight to each obstruction.

R403.5.4 Drain water heat recovery units. Drain water heat recovery units shall comply with CSA 55.2 or IAPMO PS 92. Drain water heat recovery units shall be in accordance with CSA 55.1 or IAPMO IGC 346-2017.

R403.5.5 Water heater installation location. Service hot water systems shall be installed within the *building thermal envelope*.

EXCEPTIONS:

1. Where the hot water system efficiency is greater than or equal to 2.0 UEF.
2. Tankless water heaters.
3. Gas heat pump water heaters intended for exterior installation.
4. Atmospheric vented gas water heaters.

R403.5.6 ((Electric)) Water heater insulation. All ((electric)) tank-type water heaters in unconditioned spaces, or on concrete floors in conditioned spaces, shall be placed on an insulated surface with a minimum thermal resistance of R-10, and a minimum compressive strength of 40 psi or engineered to support the appliance.

~~**R403.5.7 ((Heat pump water heating.** Service hot water in one- and two-family dwellings and multiple single-family dwellings (townhouses) shall be provided by a heat pump system. The heat pump water heating system shall be sized to provide 100 percent of peak hot water demand. Where the heat pump is located in unconditioned space, the heat pump water heating system shall be sized to provide 100 percent of peak hot water demand at an entering source dry bulb (or wet bulb if rated for wet bulb temperatures) air temperature of 40°F (4°C).~~

EXCEPTIONS:

1. Resistance heating elements integrated into heat pump equipment.
2. Electric water heaters with a rated water storage volume of no greater than 20 gallons.
3. Dwelling units with no more than 1,000 square feet of conditioned floor area.
4. Supplementary water heating systems in accordance with Section R403.5.7.1, provided the system capacity does not exceed the capacity of the heat pump water heating system.
5. Solar water heating systems.
6. Waste heat and energy recovery systems.
7. Heat trace freeze protection systems.
8. Snow and ice melt systems.

~~**R403.5.7.1) Supplementary heat for heat pump water heating systems.**~~

Heat pumps used for water heating and having supplementary water heating equipment shall have controls that limit supplementary water heating equipment operation to only those times when one of the following applies:

1. The heat pump water heater cannot meet hot water demand.
2. For heat pumps located in unconditioned space, the outside air temperature is below 40°F (4°C).
3. The heat pump is operating in defrost mode.
4. The vapor compression cycle malfunctions or loses power.

EXCEPTION: Heat trace temperature maintenance systems, provided the system capacity does not exceed the capacity of the heat pump water heating system.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40340, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40340, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40340, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27.020, and 19.27.074. WSR 14-24-053, § 51-11R-40340, filed 11/25/14, effective 5/1/15. Statutory Authority: RCW 19.27A.025, 19.27A.045, and 19.27.074. WSR 13-20-121, § 51-11R-40340, filed 10/1/13, effective 11/1/13. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters

19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40340, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION [NEW SECTION] (Amending WSR 23-02-060, 23-12-102, and 23-20-022, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24)

**WAC 51-11R-40392 ((Section R403.13 Heat pump space heating.))
Reserved.**

~~((R403.13 Heat pump space heating. Space heating shall be provided by a heat pump system.~~

EXCEPTIONS:

1. Detached one- and two-family dwellings and multiple single family dwellings (townhouses up to three stories in height above grade having an installed HVAC heating capacity no greater than 1.5 watts of electric resistance heating per square foot of *dwelling unit conditioned floor area*, or up to 500 watts, whichever is greater.
2. Group R-2 *dwelling or sleeping units* having an installed HVAC heating capacity no greater than 750 watts in Climate Zone 4, and 1,000 watts in Climate Zone 5, in any separate habitable room with exterior fenestration are permitted to be heated using electric resistance appliances. For buildings in location with exterior design conditions below 4°F (-15.6°C), an additional 250 watts above that allowed for Climate Zone 5 is permitted.
 - 2.1. A room within a dwelling or sleeping unit that has two primary walls facing different cardinal directions, each with exterior fenestration, is permitted to have an installed HVAC heating capacity no greater than 1,000 watts in Climate Zone 4, and 1,300 watts in Climate Zone 5. Bay windows and other minor offsets are not considered primary walls. For buildings in location with exterior design conditions below 4°F (-15.6°C), an additional 250 watts above that allowed for Climate Zone 5 is permitted.
3. Resistance heating elements integrated into heat pump equipment.
4. Solar thermal systems.
5. Waste heat, radiant heat exchanger, and energy recovery systems.
6. Supplementary heat in accordance with Section R403.1.2.
7. Where there is no electric utility service available at the building site.
8. Heating systems that rely primarily on biomass are allowed in Climate Zone 5.)

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40392, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24.]

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WAC 51-11R-40520 Section R405.2—Performance based compliance.

R405.2 Performance based compliance. Compliance based on total building performance requires that a proposed design meet all of the following:

1. The requirements of the sections indicated within Table R405.2 ~~((1))~~.
2. For structures less than 1,500 square feet of conditioned floor area, the annual ~~((carbon emissions))~~ site energy consumption shall be less than or equal to 64 percent of the annual ~~((carbon emissions))~~ site energy consumption of the *standard reference design*.
3. For structures 1,500 to 5,000 square feet of conditioned floor area, the annual ~~((carbon emissions))~~ site energy consumption shall be no more than 47 percent of the *standard reference design*.
4. For structures over 5,000 square feet of conditioned floor area, the annual ~~((carbon emissions))~~ site energy consumption shall be no more than 41 percent of the *standard reference design*.

5. For structures serving Group R-2 occupancies, the annual ~~((carbon emissions))~~ site energy consumption shall be less than or equal to 61 percent of the annual site energy consumption of the *standard reference design*. See Section R401.1 and *residential building* in Section R202 for Group R-2 scope.

~~((Carbon emissions for both the standard reference design and the proposed design shall be calculated using Table R405.2(2).))~~ Energy use derived from simulation analysis shall be expressed in ~~((pounds of carbon))~~ Btu per square foot of conditioned floor area per year.

**TABLE R405.2 ~~((1))~~
MANDATORY COMPLIANCE MEASURES FOR TOTAL BUILDING PERFORMANCE**

| Section ^a | Title | Comments |
|-------------------------------|---|----------------------------------|
| General | | |
| R401.3 | Certificate | |
| Envelope | | |
| R402.1.1 | Vapor retarder | |
| R402.2.3 | Eave baffle | |
| R402.2.4.1 | Access hatches and doors | |
| ((R402.2.10.1 ‡ | Crawlspace wall insulation installations)) | |
| R402.4 | Air leakage | |
| R402.5 | Maximum fenestration <i>U</i> -factor | |
| Systems | | |
| R403.1 | Controls | |
| R403.3 | Ducts | Except for R403.3.2 and R403.3.3 |
| R403.4 | Mechanical system piping insulation | |
| R403.5.1 | Heated water circulation and temperature maintenance system | |
| R403.5.3 | Drain water heat recovery units | |
| ((R403.5.7 | Heat pump water heating)) | |
| R403.6 | Mechanical ventilation | |
| R403.7 | Equipment sizing and efficiency rating | |
| R403.8 | Systems serving multiple dwelling units | |
| R403.9 | Snow melt system controls | |
| R403.10 | Energy consumption of pools and spas | |
| R403.11 | Portable spas | |
| R403.12 | Residential pools and permanent residential spas | |

| Section ^a | Title | Comments |
|--------------------------------------|----------------------------|----------|
| ((R403.13 | Heat pump space heating)) | |
| Electrical Power and Lighting | | |
| R404.1 | Lighting equipment | |
| R404.2 | Interior lighting controls | |

^a Reference to a code section includes all the relative subsections except as indicated in the table.

~~((TABLE R405.2(2)~~

~~CARBON EMISSIONS FACTORS~~

| Type | CO ₂ e (lb/unit) | Unit |
|--------------------------|-----------------------------|--------|
| Electricity | 0.44 | kWh |
| Natural gas | 11.7 | Therm |
| Oil | 19.2 | Gallon |
| Propane | 10.5 | Gallon |
| Other ^a | 195.00 | mmBtu |
| On-site renewable energy | 0.00 | |

^a District energy systems may use alternative emission factors supported by calculations *approved by the code official.*)

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40520, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 22-10-094, § 51-11R-40520, filed 5/3/22, effective 6/3/22. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40520, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40520, filed 2/1/13, effective 7/1/13.]

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AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-21-081], filed 1/3/23, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/20])

WAC 51-11R-40530 Section R405.3—Documentation.

R405.3 Documentation. Documentation of the software used for the performance design and the parameters for the building shall be in accordance with Sections R405.3.1 through ((R405.3.3)) R405.3.2.2.

R405.3.1 Compliance software tools. Documentation verifying that the methods and accuracy of the compliance software tools conform to the provisions of this section shall be provided to the *code official*.

R405.3.2 Compliance report. Compliance software tools shall generate a report that documents that the *proposed design* complies with Section R405.2.

A compliance report on the *proposed design* shall be submitted with the application for the building permit. Upon completion of the

building, a confirmed compliance report based upon the confirmed condition of the building shall be submitted to the *code official* before a certificate of occupancy is issued.

Compliance reports shall include information in accordance with Sections R405.3.2.1 and R405.3.2.2.

R405.3.2.1 Compliance report for permit application. A compliance report submitted with the application for building permit shall include all of the following:

1. Building street address, or other building site identification.
2. The name, organization, and contact information of the individual performing the analysis and generating the compliance report.
3. The name and version of the compliance software tool.
4. Documentation of all inputs entered into the software used to produce the results for the reference design and/or the rated home.
5. A certificate indicating that the *proposed design* complied with Section R405.2. The certificate shall document the building components' energy specifications that are included in the calculation including: Component-level insulation *R*-values or *U*-factors; duct system and building envelope air leakage testing assumptions; and the type and rated efficiencies of proposed heating, cooling, mechanical ventilation, and service water-heating equipment to be installed. If on-site renewable energy systems will be installed, the certificate shall report the type and production size of the proposed system. Additional documentation reporting estimated annual energy production shall be provided.
6. When a site-specific report is not generated, the *proposed design* shall be based on the worst-case orientation and configuration of the rated home.

R405.3.2.2 Compliance report for certificate of occupancy. A compliance report submitted for obtaining the certificate of occupancy shall include all of the following:

1. Building street address, or other building site identification.
2. Declaration of the total building performance path on the title page of the energy report and the title page of the building plans.
3. A statement bearing the name of the individual performing the analysis and generating the report, along with their organization and contact information, indicating that the as-built building complies with Section R405.2.
4. The name and version of the compliance software tool.
5. A site-specific energy analysis report that is in compliance with Section R405.2.
6. A final confirmed certificate indicating compliance based on inspection, and a statement indicating that the confirmed rated design of the built home complies with Section R405.2. The certificate shall report the energy features that were confirmed to be in the home, including component level insulation *R*-values or *U*-factors; results from any required duct system and building envelope air leakage testing; and the type and rated efficiencies of the heating, cooling, mechanical ventilation, and service water-heating equipment installed.
7. Where on-site renewable energy systems have been installed, the certificate shall report the type and production size of the installed system. Additional documentation reporting estimated annual energy production shall be provided.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40530, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 20-21-081, § 51-11R-40530, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40530, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40530, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40530, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-21-081], filed 1/3/23, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11R-40551 Table R405.4.2(1)—Specifications for the standard reference and proposed designs.

TABLE ((R402-4.2(1))) R405.4.2(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 R402.1.2 Solar absorptance = 0.75 Emittance = 0.90 | As proposed As proposed As proposed As proposed As proposed |
| Below-grade walls | Type: Same as proposed Gross area: Same as proposed U-factor: From Table R402.1.2, 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 R402.1.2 | As proposed As proposed As proposed |
| Ceilings | Type: Wood frame Gross area: Same as proposed U-factor: From Table R402.1.2 | 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 ² per 300 ft ² ceiling area | As proposed |
| Foundations | Type: Same as proposed foundation wall area above and below-grade Soil characteristics: Same as proposed. | As proposed As proposed |
| Opaque doors | Area: 40 ft ² Orientation: North U-factor: Same as fenestration from Table R402.1.2. | As proposed As proposed As proposed |

| BUILDING COMPONENT | STANDARD REFERENCE DESIGN | PROPOSED DESIGN |
|--|--|---|
| Vertical fenestration other than opaque doors ^a | Total area ^h = (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. | As proposed |
| | Orientation: Equally distributed to four cardinal compass orientations (N, E, S & W). | As proposed |
| | <i>U</i> -factor: From Table R402.1.2 | As proposed |
| | SHGC: From Table R402.1.1 except that for climates with no requirement (NR) SHGC = 0.40 shall be used. | As proposed |
| | Interior shade fraction: 0.92 - (0.21 × SHGC for the standard reference design) External shading: None | 0.92 - (0.21 × SHGC as proposed) As proposed |
| Skylights | None | As proposed |
| Air exchange rate | Air leakage rate of 4 air changes per hour 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: <i>CFA</i> = conditioned floor area <i>N_{br}</i> = number of bedrooms - The mechanical ventilation system type shall be the same as in the proposed design. Energy recovery shall not be assumed for mechanical ventilation. | As proposed ^a . The mechanical ventilation rate ^b 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: $kWh/yr = (1e_f) \times (0.0876 \times CFA + 65.7 \times (N_{br} + 1))$ where: <i>e_f</i> = the minimum fan efficacy from Table R403.6.1 corresponding to the system type at a flow rate of $0.01 \times CFA + 7.5 \times (N_{br} + 1)$ <i>CFA</i> = conditioned floor area <i>N_{br}</i> = number of bedrooms | As proposed |
| 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 ^c 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 R402.1.2 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 ^{d, e} | The standard reference design shall be an air source heat pump meeting the requirements of Section C403 of the WSEC—Commercial Provisions. Capacity: Sized in accordance with Section ((R403.6)) R403.7 | As proposed |

| BUILDING COMPONENT | STANDARD REFERENCE DESIGN | PROPOSED DESIGN | | | | | | | | | | | | | | | | | |
|---|---|---|---------------------------------------|--|------|---------|-------------------|------|------|---|--------------|--------------|------|--------------|---------------|------|------|-------|------|
| Cooling systems ^{d, f} | Same system type as proposed. Same system efficiency as required by prevailing minimum federal standard. Capacity: Sized in accordance with Section ((R403.6-)) R403.7 | As proposed | | | | | | | | | | | | | | | | | |
| Service water heating ^{d, e, f, g} | The standard reference design shall be a heat pump water ((heating)) heater meeting the standards for Tier 1 of NEEA's Advanced Water Heating Specifications. Use, in units of gal/day = 25.5 + (8.5 x N _{br}) Where N _{br} = number of bedrooms | As proposed Use, in units of gal/day = 25.5 + (8.5 x N _{br}) x (1 - HWDS) Where: N _{br} = number of bedrooms HWDS = factor for the compactness of the hot water distribution system <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Compactness ratio¹ factor</th> <th rowspan="2">HWDS</th> </tr> <tr> <th>1 story</th> <th>2 or more stories</th> </tr> </thead> <tbody> <tr> <td>>60%</td> <td>>30%</td> <td>0</td> </tr> <tr> <td>>30% to ≤60%</td> <td>>15% to ≤30%</td> <td>0.05</td> </tr> <tr> <td>>15% to ≤30%</td> <td>>7.5% to ≤15%</td> <td>0.10</td> </tr> <tr> <td>≤15%</td> <td>≤7.5%</td> <td>0.15</td> </tr> </tbody> </table> | Compactness ratio ¹ factor | | HWDS | 1 story | 2 or more stories | >60% | >30% | 0 | >30% to ≤60% | >15% to ≤30% | 0.05 | >15% to ≤30% | >7.5% to ≤15% | 0.10 | ≤15% | ≤7.5% | 0.15 |
| Compactness ratio ¹ factor | | HWDS | | | | | | | | | | | | | | | | | |
| 1 story | 2 or more stories | | | | | | | | | | | | | | | | | | |
| >60% | >30% | 0 | | | | | | | | | | | | | | | | | |
| >30% to ≤60% | >15% to ≤30% | 0.05 | | | | | | | | | | | | | | | | | |
| >15% to ≤30% | >7.5% to ≤15% | 0.10 | | | | | | | | | | | | | | | | | |
| ≤15% | ≤7.5% | 0.15 | | | | | | | | | | | | | | | | | |
| Thermal distribution systems | Duct insulation: From Section R403.3.3. Duct location: Same as proposed design. A thermal distribution system efficiency (DSE) of 0.93 shall be applied to both the heating and cooling system efficiencies for all systems. Exception: For nonducted heating and cooling systems that do not have a fan, the standard reference design distribution system efficiency (DSE) shall be 1. | Duct insulation: As proposed. Duct location: As proposed. As specified in Table R405.5.2(2). | | | | | | | | | | | | | | | | | |
| Thermostat | Type: Manual, cooling temperature setpoint = 75°F; Heating temperature setpoint = 72°F | Same as standard reference | | | | | | | | | | | | | | | | | |

For SI: 1 square foot = 0.93 m², 1 British thermal unit = 1055 J, 1 pound per square foot = 4.88 kg/m², 1 gallon (U.S.) = 3.785 L, °C = (°F-3)/1.8, 1 degree = 0.79 rad

- a 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.
- b 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.
- c 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.
- d 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.
- e 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.
- f 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.
- g 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.
- h For residences with conditioned basements, R-2 and R-4 residences and townhouses, the following formula shall be used to determine fenestration area:

$$AF = A_s \times FA \times F$$

Where:

- AF = Total fenestration area.
- A_s = Standard reference design total fenestration area.
- FA = (Above-grade thermal boundary gross wall area)/(above-grade boundary wall area + 0.5 x below-grade boundary wall area).

$F = \frac{\text{(Above-grade thermal boundary wall area)}}{\text{(above-grade thermal boundary wall area + common wall area)}}$ 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.

- i The factor for the compactness of the hot water distribution system is the ratio of the area of the rectangle that bounds the source of hot water and the fixtures that it serves (the "hot water rectangle") divided by the floor area of the dwelling.
 1. Sources of hot water include water heaters, or in multifamily buildings with central water heating systems, circulation loops, or electric heat traced pipes.
 2. The hot water rectangle shall include the source of hot water and the points of termination of all hot water fixture supply piping.
 3. The hot water rectangle shall be shown on the floor plans and the area shall be computed to the nearest square foot.
 4. Where there is more than one water heater and each water heater serves different plumbing fixtures and appliances, it is permissible to establish a separate hot water rectangle for each hot water distribution system and add the area of these rectangles together to determine the compactness ratio.
 5. The basement or attic shall be counted as a story when it contains the water heater.
 6. Compliance shall be demonstrated by providing a drawing on the plans that shows the hot water distribution system rectangle(s), comparing the area of the rectangle(s) to the area of the dwelling and identifying the appropriate compactness ratio and HWDS factor.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40551, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 20-21-081, § 51-11R-40551, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40551, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40551, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40551, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40552 Table R405.4.2(2)—Default distribution system efficiencies for proposed designs.

**TABLE ((R402.4.2(2))) R405.4.2(2)
DEFAULT DISTRIBUTION SYSTEM EFFICIENCIES FOR PROPOSED
DESIGNS^a**

| DISTRIBUTION SYSTEM CONFIGURATION AND CONDITION | DISTRIBUTION SYSTEM EFFICIENCY |
|---|--------------------------------|
| Distribution system components located in unconditioned space | 0.88 |
| Distribution systems entirely located in conditioned space ^b | 0.93 |
| Zonal systems ^c | 1.00 |

For SI: 1 cubic foot per minute = 0.47 L/s, 1 square foot = 0.093m², 1 pound per square inch = 6895 Pa, 1 inch water gauge = 1250 Pa.
^a Values given by this table are for distribution systems, which must still meet all prescriptive requirements for duct and pipe system insulation and leakage.

^b 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. All components must be located on the interior side of the thermal envelope (inside the insulation) and also inside of the air barrier. Refrigerant compressors and piping are allowed to be located outside.

^c Zonal systems are systems where the heat source is located within each room. 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. Hydronic systems do not qualify.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40552, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40552, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40552, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40560 Section R405.5—Calculation software tools.

R405.5 Calculation software tools. Calculation software, where used, shall be in accordance with Sections R405.5.1 through R405.5.3.

R405.5.1 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)) R405.4.2(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.).

R405.5.2 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.

R405.5.3 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40560, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40560, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40610 Section R406.1—Scope.

R406.1 Scope. This section establishes additional energy efficiency requirements for all new construction covered by this code, including additions subject to Section R502 and change of occupancy or use subject to Section R505 unless specifically exempted in Section R406. Credits from both Sections R406.2 and R406.3 are required.

R406.2 Carbon emission equalization. This section establishes a base equalization between fuels used to define the equivalent carbon emissions of the options specified. The permit shall define the base fuel selection to be used and the points specified in Table R406.2 shall be used to modify the requirements in Section R406.3.

TABLE R406.2
(~~FUEL NORMALIZATION~~) ENERGY EQUALIZATION CREDITS

| System Type | Description of Heating Sources | Credits | |
|----------------|--|-------------------------|------------------------|
| | | All Other | Group R-2 ^a |
| 1 | For combustion heating system using equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6) | ((-3.0)) 0 | 0 |
| 2 | For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5) ^b | ((0)) 1.5 | 0 |
| 3 | For heating system based on electric resistance only (either forced air or zonal) | ((-1.0)) 0.5 | -0.5 |
| 4 ^c | For a heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590 | ((+5)) 3.0 | 2.0 |
| 5 | For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling or 2. With 2 kW or less total installed heating capacity per dwelling | ((0.5)) 2.0 | 0 |

^a See Section R401.1 and *residential building* in Section R202 for Group R-2 scope.

^b The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that "changeover" temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).

^c Additional points for this HVAC system are included in Table R406.3.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40610, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40610, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-40610, filed 5/2/17, effective 6/2/17. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40610, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40620 Section R406.3—Additional energy efficiency requirements.

R406.3 Additional energy efficiency requirements. Each *dwelling unit* in a *residential building* shall comply with sufficient options from Table R406.2 and R406.3 so as to achieve the following minimum number of credits:

- | | |
|--|-------------------------------|
| 1. Small <i>Dwelling Unit</i> : | ((2.5)) <u>5.0</u> credits |
| <i>Dwelling units</i> less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. <i>Additions</i> to existing building that are greater than 500 square feet of heated floor area but less than 1500 square feet. | |
| 2. Medium <i>Dwelling Unit</i> : | ((5.0)) <u>8.0</u> credits |
| All <i>dwelling units</i> that are not included in #1, #3, or #4. | |
| 3. Large <i>Dwelling Unit</i> : | ((6.0)) <u>9.0</u> credits |
| <i>Dwelling units</i> exceeding 5000 square feet of conditioned floor area. | |
| 4. <i>Dwelling units</i> serving Group R-2 occupancies. See Section R401.1 and <i>residential building</i> in Section R202 for Group R-2 scope. | ((4.5)) <u>6.5</u> credits |
| 5. <i>Additions</i> 150 square feet to 500 square feet: | 2.0 credits |

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.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40620, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40620, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40620, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40620, filed 2/1/13, effective 7/1/13.]

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WAC 51-11R-40621 Table R406.3—Energy credits.

**TABLE 406.3
ENERGY CREDITS**

| OPTION | DESCRIPTION | CREDIT(S) | |
|---|---|------------------------|------------------------|
| | | All Other | Group R-2 ^b |
| 1. EFFICIENT BUILDING ENVELOPE OPTIONS | | | |
| Only one option from Items 1.1 through 1.4 may be selected in this category. Compliance with the conductive UA targets is demonstrated using Section R402.1.5, Total UA alternative, where [1-(Proposed UA/Target UA)] >; the required %UA reduction | | | |
| 1.1 | Prescriptive compliance is based on Table R402.1.3 with the following modifications: Vertical fenestration U = 0.22. | 0.5 | 0.5 |
| 1.2 | Prescriptive compliance is based on Table R402.1.3 with the following modifications: Vertical fenestration U = 0.25 Floor R-38 Basement wall R-21 int plus R-5 ci Ceiling and single-rafter or joist-vaulted R-60 advanced Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab or Compliance based on Section R402.1.5: Reduce the Total conductive UA by 15%. | ((0.5)) 1.0 | 1.0 |
| 1.3 | Prescriptive compliance is based on Table R402.1.3 with the following modifications: Vertical fenestration U = 0.18 Ceiling and single-rafter or joist-vaulted R-60 advanced 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 or Compliance based on Section R402.1.5: Reduce the Total conductive UA by 22.5%. | ((1.0)) 1.5 | 1.5 |

| OPTION | DESCRIPTION | CREDIT(S) | |
|--|---|------------------------------|------------------------|
| | | All Other | Group R-2 ^b |
| 1.4 | <p>Prescriptive compliance is based on Table R402.1.3 with the following modifications:</p> <ul style="list-style-type: none"> Vertical fenestration U = 0.18 Ceiling and single-rafter or joist-vaulted R-60 advanced Wood frame wall R-21 int plus R-16 ci Floor R-48 Basement wall R-21 int plus R-16 ci Slab on grade R-20 perimeter and under entire slab Below grade slab R-20 perimeter and under entire slab <p>or</p> <p>Compliance based on Section R402.1.5: Reduce the Total conductive UA by 30%.</p> | ((+5)) <u>2.5</u> | 2.0 |
| <p>2. AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION OPTIONS Only one option from Items 2.1 through 2.3 may be selected in this category.</p> | | | |
| 2.1 | <p>Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 2.0 air changes per hour maximum at 50 Pascals</p> <p>or</p> <p>For R-2 Occupancies, optional compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.25 cfm/ft² maximum at 50 Pascals</p> <p>and</p> <p>All whole house ventilation requirements as determined by Section M1505.3 of the <i>International Residential Code</i> or Section 403.8 of the <i>International Mechanical Code</i> shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.65.</p> <p>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> | ((+5)) <u>1.0</u> | 1.0 |
| 2.2 | <p>Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 1.5 air changes per hour maximum at 50 Pascals</p> <p>or</p> <p>For R-2 Occupancies, optional compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.20 cfm/ft² maximum at 50 Pascals</p> <p>and</p> <p>All whole house ventilation requirements as determined by Section M1505.3 of the <i>International Residential Code</i> or Section 403.8 of the <i>International Mechanical Code</i> shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.75.</p> <p>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> | ((+0)) <u>1.5</u> | 1.5 |

| OPTION | DESCRIPTION | CREDIT(S) | |
|--|---|------------|------------------------|
| | | All Other | Group R-2 ^b |
| 2.3 | <p>Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.6 air changes per hour maximum at 50 Pascals</p> <p>or</p> <p>For R-2 Occupancies, optional compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.15 cfm/ft² maximum at 50 Pascals</p> <p>and</p> <p>All whole house ventilation requirements as determined by Section M1505.3 of the <i>International Residential Code</i> or Section 403.8 of the <i>International Mechanical Code</i> shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.80. Duct installation shall comply with Section ((R403.3.7)) R403.3.2.</p> <p>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> | ((+5)) 2.0 | 2.0 |
| <p>3. HIGH EFFICIENCY HVAC EQUIPMENT OPTIONS Only one option from Items 3.1 through 3.8 may be selected in this category. Item 3.9 may be taken with Items 3.1 or 3.3^c only.</p> | | | |
| 3.1 ^a | <p>For a System Type 1 in Table R406.2: Energy Star rated (U.S. North) gas or propane furnace with minimum AFUE of 95%.</p> <p>or</p> <p>Energy Star rated (U.S. North) gas or propane boiler with minimum AFUE of 90%</p> <p>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 | 1.0 |
| 3.2 ^a | <p>For secondary heating system serving System Type 2 in Table R406.2: Energy Star rated (U.S. North) Gas or propane furnace with minimum AFUE of 95%</p> <p>or</p> <p>Energy Star rated (U.S. North) Gas or propane boiler with minimum AFUE of 90%.</p> <p>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 | 0.5 |
| 3.3 ^{a,c,d} | <p>Air-source centrally ducted heat pump with minimum HSPF of 9.5.</p> <p>In areas where the winter design temperature as specified in Appendix RC is 23°F or below, a cold climate heat pump found on the NEEP cc ASHP qualified product list shall be used.</p> <p>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 | N/A |
| 3.4 ^{a,d} | <p>Closed-loop ground source heat pump; with a minimum COP of 3.3</p> <p>or</p> <p>Open loop water source heat pump with a maximum pumping hydraulic head of 150 feet and minimum COP of 3.6.</p> <p>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> | 1.5 | 1.0 |

| OPTION | DESCRIPTION | CREDIT(S) | |
|----------------------|---|------------|------------------------|
| | | All Other | Group R-2 ^b |
| 3.5 ^d | <p>Ductless mini-split heat pump system, zonal control: In homes where the primary space heating system is zonal electric heating, a ductless mini-split heat pump system with a minimum HSPF of 10.0 shall be installed and provide heating to the largest zone of the housing unit.</p> <p>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> | 1.5 | 2.0 |
| 3.6 ^{a,d} | <p>Air-source, centrally ducted heat pump with minimum HSPF of 11.0.</p> <p>A centrally ducted air source cold climate variable capacity heat pump (cc VHP) found on the NEEP cc VCHP qualified product list with a minimum of 10 HSPF may be used to satisfy this requirement.</p> <p>In areas where the winter design temperature as specified in Appendix RC is 23°F or below, an air source centrally ducted heat pump shall be a cold climate variable capacity heat pump as listed on the NEEP qualified product list.</p> <p>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 | N/A |
| 3.7 ^{a,d,e} | <p>Ductless split system heat pumps with no electric resistance heating in the primary living areas. A ductless heat pump system with a minimum HSPF of 10 shall be sized and installed to provide heat to entire dwelling unit at the design outdoor air temperature.</p> <p>Exception: In homes with total heating loads of 24,000 or less using multi-zone mini-split systems with nominal ratings of 24,000 or less, the minimum HSPF to claim this credit shall be 9 HSPF.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected, the heated floor area calculation, the heating equipment type(s), the minimum equipment efficiency, and total installed heat capacity (by equipment type).</p> | 2.0 | 3.0 |
| 3.8 ^{a,d} | <p>Air-to-water heat pump with minimum COP of 3.2 at 47°F, rated in accordance with AHRI 550/590 by an accredited or certified testing lab.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected, the heated floor area calculation, the heating equipment type(s), the minimum equipment efficiency, and total installed heat capacity (by equipment type).</p> | 1.0 | N/A |
| 3.9 ^c | <p>Connected thermostat meeting ENERGY STAR Certified Smart Thermostats/EPA ENERGY STAR specifications.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the thermostat model.</p> | 0.5 | 0.5 |
| 3.10 | <p><u>Gas-fired heat pump(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15.</u></p> <p><u>For R-2 Occupancy, gas-fired heat pump(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15, shall serve all units.</u></p> | <u>1.5</u> | <u>1.5</u> |

| OPTION | DESCRIPTION | CREDIT(S) | |
|---|---|-----------|------------------------|
| | | All Other | Group R-2 ^b |
| 3.11 ^f | <p><u>Combination water heating and space heating system shall include one of the following:</u> <u>Gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0.</u></p> <p>or</p> <p><u>For R-2 Occupancy, gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0., shall serve all units.</u></p> <p>or</p> <p><u>For R-2 Occupancy, gas-fired heat pump(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15, shall serve all units.</u></p> <p><u>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.</u></p> | 2.5 | 2.5 |
| 4. HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM OPTIONS | | | |
| 4.1 | <p>HVAC equipment and associated duct system(s) installation shall comply with the requirements of Section R403.3.2.</p> <p>Electric resistance heat, hydronic heating and ductless heat pumps are not permitted under this option.</p> <p>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> | 0.5 | N/A |
| 5. EFFICIENT WATER HEATING OPTIONS | | | |
| Only one option from Items 5.3 through ((5-5)) 5.8 may be selected in this category. Items 5.1 and 5.2 may be combined with any option. | | | |
| 5.1 | <p>A drain water heat recovery unit(s) shall be installed, which captures wastewater heat from at least two showers, including tub/shower combinations. It is acceptable, but not required, for sink water to be connected. Unit shall have a minimum efficiency of 40% if installed for equal flow or a minimum efficiency of 54% if installed for unequal flow. Such units shall be rated in accordance with CSA B55.1 or IAPMO IGC 346-2017 and be so labeled.</p> <p>To qualify to claim this credit, the building permit drawings shall include a plumbing diagram that specifies the drain water heat recovery units and the plumbing layout needed to install it. Labels or other documentation shall be provided that demonstrates that the unit complies with the standard.</p> | 0.5 | 0.5 |
| 5.2 | <p>For Compact Hot Water Distribution system credit, the volume shall store not more than 16 ounces of water between the nearest source of heated water and the termination of the fixture supply pipe where calculated using Section R403.5.2. <i>Construction documents</i> shall indicate the ounces of water in piping between the hot water source and the termination of the fixture supply. When the hot water source is the nearest primed plumbing loop or trunk, this must be primed with an On Demand recirculation pump and must run a dedicated ambient return line from the furthest fixture or end of loop to the water heater.</p> <p>To qualify for this credit, the dwelling must have a minimum of 1.5 bathrooms.</p> | 0.5 | 0.5 |
| 5.3 | <p><u>Water heating system shall include the following:</u> <u>Energy Star rated gas or propane water heater with a minimum UEF of 0.80.</u></p> <p><u>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.</u></p> | 0.5 | 0.5 |

| OPTION | DESCRIPTION | CREDIT(S) | |
|--------------------|---|------------|------------------------|
| | | All Other | Group R-2 ^b |
| <u>5.4</u> | <p><u>Water heating system shall include one of the following:</u> <u>Energy Star rated gas or propane water heater with a minimum UEF of 0.91.</u></p> <p>or</p> <p>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</p> <p>or</p> <p>Water heater heated by ground source heat pump meeting the requirements of Option ((3-3)) 3.4.</p> <p>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> | 1.0 | 1.0 |
| ((5.4)) <u>5.5</u> | <p><u>Water heating system shall include one of the following:</u> <u>Gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0.</u></p> <p>or</p> <p><u>For R-2 Occupancy, gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0. shall supply domestic hot water to all units.</u></p> <p>or</p> <p><u>For R-2 Occupancy, gas-fired heat pump water heater(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15, shall supply domestic hot water to all units.</u></p> <p><u>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.</u></p> | <u>1.5</u> | <u>1.5</u> |
| <u>5.6</u> | <p>Water heating system shall include one of the following: Electric heat pump water heater meeting the standards for Tier III of NEEA's advanced water heating specification.</p> <p>or</p> <p>For R-2 Occupancy, electric heat pump water heater(s), meeting the standards for Tier III of NEEA's advanced water heating specification, shall supply domestic hot water to all units. If one water heater is serving more than one dwelling unit, all hot water supply and recirculation piping shall be insulated with R-8 minimum pipe insulation.</p> <p>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.</p> | 2.0 | 2.5 |

| OPTION | DESCRIPTION | CREDIT(S) | |
|--|--|-----------|------------------------|
| | | All Other | Group R-2 ^b |
| (5-5) 5.7 | <p>Water heating system shall include one of the following: Electric heat pump water heater with a minimum UEF of 2.9 and utilizing a split system configuration with the air-to-refrigerant heat exchanger located outdoors. Equipment shall meet Section 4, requirements for all units, of the NEEA standard <i>Advanced Water Heating Specification</i> with the UEF noted above.</p> <p>or</p> <p>For R-2 Occupancy, electric heat pump water heater(s), meeting the standards for Tier III of NEEA's advanced water heating specification and utilizing a split system configuration with the air-to-refrigerant heat exchanger located outdoors, shall supply domestic hot water to all units. If one water heater is serving more than one dwelling unit, all hot water supply and recirculation piping shall be insulated with R-8 minimum pipe insulation.</p> <p>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.</p> | 2.5 | 3.0 |
| 5.8 | <p><u>Combination water heating and space heating system shall include one of the following:</u> <u>Gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0.</u></p> <p>or</p> <p><u>For R-2 Occupancy, gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0., shall supply all units.</u></p> <p>or</p> <p><u>For R-2 Occupancy, gas-fired heat pump(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15, shall supply all units.</u></p> <p><u>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.</u></p> | TBD | TBD |
| 6. RENEWABLE ELECTRIC ENERGY OPTION | | | |
| 6.1 | <p>For each 600 kWh of electrical generation per housing unit provided annually by on-site wind or solar equipment a 0.5 credit shall be allowed, up to 4.5 credits. Generation shall be calculated as follows: For solar electric systems, the design shall be demonstrated to meet this requirement using the National Renewable Energy Laboratory calculator PVWATTs or approved (alternate) <u>alternative</u> by the code official.</p> <p>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: 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 – 4.5 | 0.5 – 4.5 |
| 7. APPLIANCE PACKAGE OPTION | | | |

| OPTION | DESCRIPTION | CREDIT(S) | |
|--------|--|-----------|------------------------|
| | | All Other | Group R-2 ^b |
| 7.1 | <p>All of the following appliances shall be new and installed in the dwelling unit and shall meet the following standards:</p> <ol style="list-style-type: none"> 1. Dishwasher, standard - Energy Star rated, Most Efficient 2021 or Dishwasher, compact – Energy Star rated (Version 6.0) 2. Refrigerator (if provided) - Energy Star rated (Version 5.1) 3. Washing machine (Residential) - Energy Star rated (Version 8.1) 4. Dryer - Energy Star rated, Most Efficient 2022 <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall show the appliance type and provide documentation of Energy Star compliance. At the time of inspection, all appliances shall be installed and connected to utilities. Dryer ducts and exterior dryer vent caps are not permitted to be installed in the <i>dwelling unit</i>.</p> | 0.5 | 1.5 |

^a An alternative heating source sized at a maximum of 0.5 Watts/ft² (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.
^b See Section R401.1 and *residential building* in Section R202 for Group R-2 scope.
^c Option 3.9 can only be taken with Options 3.1 and 3.3. To qualify to claim option 3.8 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.
^d This option may only be claimed if serving System Type 4 or 5 from Table R406.2.
^e Primary living areas include living, dining, kitchen, family rooms, and similar areas.
^f Option 3.11 may only be taken with Efficient Water Heating Options 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance. Supplementary heat for water heating system shall be in accordance with Section R403.5.7.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-40621, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 22-10-094, § 51-11R-40621, filed 5/3/22, effective 6/3/22. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-40621, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-40621, filed 5/2/17, effective 6/2/17. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40621, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27.020, and 19.27.074. WSR 14-24-123, § 51-11R-40621, filed 12/3/14, effective 1/3/15. Statutory Authority: RCW 19.27A.025, 19.27A.045, and 19.27.074. WSR 13-20-121, § 51-11R-40621, filed 10/1/13, effective 11/1/13. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40621, filed 2/1/13, effective 7/1/13.]

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.
Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-21-081], filed 1/3/23, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11R-50100 Section R501—General.

R501.1 Scope. The provisions of this chapter shall control the alteration, repair, addition and change of occupancy of existing buildings and structures.

R501.1.1 General. 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. Unaltered portions of the existing building or building supply system shall not be required to comply with this code.

R501.1.2 Thermostats for accessory dwelling units. Where a separate *dwelling unit*, that provides independent facilities for living, sleeping, cooking, bathing and sanitation, is established within or attached to an existing *dwelling unit*, the heating and cooling for the newly-created *dwelling unit* shall be controllable with a separate programmable thermostat in accordance with Section R403.1.1.

R501.2 Compliance. *Additions, alterations, repairs* or changes of occupancy to, or relocation of, an existing building, building system or portion thereof shall comply with Sections R502, R503, R504 or R505, respectively, in this code. Changes where unconditioned space is changed to *conditioned space* shall comply with Section R502.

R501.3 Maintenance. Buildings and structures, and parts thereof, shall be maintained in a safe and sanitary condition. Devices and systems that are required by this code shall be maintained in conformance with the code edition under which installed. The owner or the owner's authorized agent shall be responsible for the maintenance of buildings and structures. The requirements of this chapter shall not provide the basis for removal or abrogation of energy conservation, fire protection and safety systems and devices in existing structures.

R501.4 Compliance. *Alterations, repairs, additions* and changes of occupancy to, or relocation of, existing buildings and structures shall comply with the provisions for *alterations, repairs, additions* and changes of occupancy or relocation, respectively, in this code and the *International Residential Code, International Building Code, International Existing Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, Uniform Plumbing Code, International Property Maintenance Code*, and NFPA 70.

R501.5 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for *repairs*, provided hazards to life, health or property are not created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

R501.6 Historic buildings. The *code official* may modify the specific requirements of this code for *historic buildings* and require (~~alternate~~) alternative provisions 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 register 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*.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-50100, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 20-21-081, § 51-11R-50100, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-50100, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-50100, filed 1/6/16, effective 7/1/16.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-01-047], filed 1/3/23, 6/7/23, and 9/25/23 [12/9/19], effective 3/15/24 [7/1/20])

WAC 51-11R-50200 Section R502—Additions.

R502.1 General. *Additions* to an existing building, building system or portion thereof shall conform to the provisions of this code as those provisions relate to new construction without requiring the unaltered portion of the existing building or building system to comply with this code, except as specified in this chapter. *Additions* shall not create an unsafe or hazardous condition or overload existing building systems. An *addition* shall be deemed to comply with this code where the *addition* alone complies, where the existing building and *addition* comply with this code as a single building, or where the building with the *addition* uses no more energy than the existing building. *Additions* shall be in accordance with Section (~~(R502.1.1 or R502.1.2)~~) R502.3 or R502.4.

R502.1.1 Small additions. *Additions* not greater than 150 square feet (13.9 m²) shall not be required to comply with Section R406.

R502.2 Change in space conditioning. Any nonconditioned or low-energy space that is altered to become *conditioned space* shall be required to be brought into full compliance with this code.

EXCEPTION: Where the total building performance option in Section R405 is used to comply with this section, the annual energy use of the *proposed design* is permitted to be 110 percent of the annual energy use otherwise allowed by Section R405.3.

R502.3 Prescriptive compliance. Additions shall comply with Sections R502.3.1 through R502.3.4.

R502.3.1 Building envelope. New building envelope assemblies that are part of the *addition* shall comply with Sections R402.1, R402.2, R402.3.1 through R402.3.5, and R402.4.

EXCEPTION: Where nonconditioned space is changed to *conditioned space*, the building envelope of the *addition* shall comply where the UA, as determined in Section R402.1.5, of the existing building and the *addition*, and any *alterations* that are part of the project, is less than or equal to UA generated for the existing building.

R502.3.1.1 Existing ceilings with attic spaces. Where an *addition* greater than 150 square feet (~~((9-2))~~ 13.9 m²) adjoins existing ceilings with attic spaces, the existing attic spaces shall comply with Section R402.

R502.3.2 Heating and cooling systems. HVAC ducts newly installed as part of an *addition* shall comply with Section R403.

EXCEPTION: The following need not comply with the testing requirements of Section R403.3.3:

1. *Additions* of less than 150 square feet.
2. Duct systems that are documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in WSU RS-33.
3. Existing duct systems constructed, insulated or sealed with asbestos.

R502.3.3 Service hot water systems. New service hot water systems that are part of the *addition* shall comply with Section R403.5.

R502.3.4 Lighting. New lighting systems that are part of the *addition* shall comply with Section 404.1.

R502.4 Existing plus addition compliance (Total Building Performance). Where nonconditioned space is changed to *conditioned space* the *addition* shall comply where the annual energy use of the *addition* and the existing building, and any *alterations* that are part of the project, is less than or equal to the annual energy use of the existing building when modeled in accordance with Section R405. The *addition* and any *alterations* that are part of the project shall comply with Section R405 in its entirety.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-50200, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-50200, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-50200, filed 5/2/17, effective 6/2/17. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-50200, filed 1/6/16, effective 7/1/16.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-21-081], filed 1/3/23, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11R-50300 Section R503—Alterations.

R503.1 General. *Alterations* to any building or structure shall comply with the requirements of the code for new construction, without requiring the unaltered portions of the existing building or building system to comply with this code. *Alterations* shall be such that the existing building or structure is no less conforming to the provisions of this code than the existing building or structure was prior to the *alteration*.

Alterations shall not create an unsafe or hazardous condition or overload existing building systems.

Alterations shall be such that the existing building or structure uses no more energy than the existing building or structure prior to the *alteration*. *Alterations* to existing buildings shall comply with Sections R503.1.1 through R503.2.

The *code official* may approve designs of *alterations* which do not fully conform to all of the requirements of this code where in the

opinion of the *code official* full compliance is physically impossible and/or economically impractical and:

The *alteration* improves the energy efficiency of the building; or

The *alteration* is energy efficient and is necessary for the health, safety, and welfare of the general public.

R503.1.1 Building envelope. Building envelope assemblies that are part of the *alteration* shall comply with Section R402.1.3 or R402.1.5, Sections R402.2.1 through R402.2.11, R402.3.1, R402.3.2, (~~R402.4.3, and R402.4.4~~) R402.3.5, and R402.4.2.

EXCEPTION: The following *alterations* need not comply with the requirements for new construction provided the energy use of the building is not increased:

1. Storm windows installed over existing *fenestration*.
2. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation. 2 x 4 framed walls shall be insulated to a minimum of R-15 and 2 x 6 framed walls shall be insulated to a minimum of R-21.
3. Construction where the existing roof, wall or floor cavity is not exposed.
4. *Roof recover*.
5. 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. Surface-applied window film installed on existing single pane *fenestration* assemblies to reduce solar heat gain provided the code does not require the glazing *fenestration* to be replaced.

R503.1.1.1 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 R402.1.3. Where more than one replacement *fenestration* unit is being installed, an area-weighted average of the *U*-factor and SHGC of all replacement *fenestration* shall be permitted to be used to demonstrate compliance.

R503.1.2 Heating and cooling systems. New heating, cooling and duct systems that are part of the *alteration* shall comply with Section R403.

EXCEPTIONS:

1. Where ducts from an existing heating and cooling system are extended, duct systems with less than 40 linear feet in unconditioned spaces shall not be required to be tested in accordance with Section R403.2.2.
2. Existing duct systems constructed, insulated or sealed with asbestos.
- ~~(3- Replacements of space heating equipment shall not be required to comply with Section R403.13 where the rated capacity of the new equipment does not exceed the rated capacity of the existing equipment.)~~

R503.1.3 Service hot water systems. New service hot water systems that are part of the *alteration* shall comply with Section R403.5.

EXCEPTION(S): ~~((1-))~~ Replacement of water heating equipment shall not be required to comply with Section R403.5.5. ~~((2- Replacement of water heating equipment shall not be required to comply with Section R403.5.7 where the rated capacity of the new equipment does not exceed the rated capacity of the existing equipment.))~~

R503.1.4 Lighting. New lighting systems that are part of the *alteration* shall comply with Section R404.1.

EXCEPTION: Alterations that replace less than 10 percent of the luminaires in a space, provided that such alterations do not increase the installed interior lighting power.

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-50300, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 20-21-081, § 51-11R-50300, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-50300, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-50300, filed 5/2/17, effective 6/2/17. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-50300, filed 1/6/16, effective 7/1/16.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 23-02-060, 23-12-102, and 23-20-022 [20-01-047], filed 1/3/23, 6/7/23, and 9/25/23 [12/9/19], effective 3/15/24 [7/1/20])

WAC 51-11R-51000 Chapter 6—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.

| | | |
|--------------------------------------|---|--------------------------------------|
| AAMA | 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 C440-17 | North American Fenestration Standard/Specifications for Windows, Doors and Unit Skylights | ((R402.4.3)) R402.4.2 |
| ACCA | Air Conditioning Contractors of America 2800 Shirlington Road, Suite 300 Arlington, VA 22206 | |
| Standard reference number | Title | Referenced in code section number |
| Manual J-16 | Residential Load Calculation Eighth Edition | R403.7 |
| Manual S-14 | Residential Equipment | R403.7 |
| ANSI | American National Standards Institute 25 West 43rd Street, 4th Floor New York, NY 10036 | |
| Standard reference number | Title | Referenced in code section number |
| Z21.50-2016/CSA 2.22-2016 | Vented Decorative Gas Appliances | ((R402.4.2.1, R403.1.3)) R403.7.1 |
| Z21.88-2017/CSA 2.33-2017 | Vented Gas Fireplace Heaters | ((R402.4.2.1)) R403.7.1 |
| Z21.40.2-1996 | <u>Gas-fired, Work Activated Air-Conditioning and Heat Pump Appliances (Internal Combustion)</u> | Table R406.3 |
| Z21.40.4-1996 | <u>Performance Testing and Rating of Gas-Fired, Air-Conditioning and Heat Pump Appliances</u> | Table R406.3 |
| APSP | The Association of Pool and Spa Professionals 2111 Eisenhower Avenue, Suite 500 Alexandria, VA 22206 | |
| Standard reference number | Title | Referenced in code section number |
| ANSI/APSP/ICC 14-2019 | American National Standard for Portable Electric Spa Energy Efficiency | R403.11 |
| ANSI/APSP/ICC 15a-2011 | American National Standard for Residential Swimming Pool and Spa Energy Efficiency— Includes Addenda A approved January 9, 2013 | R403.12 |
| ASHRAE | 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-2021 | ASHRAE Handbook of Fundamentals | R402.1.5, Table R405.5.2(1) |
| ASHRAE 193-2010 (RA 2014) | Method of Test for Determining the Airtightness of HVAC Equipment | ((R403.3.2.1)) R403.3.4.1 |
| ASTM | ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2859 | |
| Standard reference number | Title | Referenced in code section number |

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|---------------------------------|--|-----------------------------------|
| C1363-11 | Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus | R303.1.4.1 |
| E283-2004 (2012) | Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen | ((R402.4.5)) R402.4.3 |
| E779-2010 (2018) | Standard Test Method for Determining Air Leakage Rate by Fan Pressurization | R402.4.1.2 |
| E1554/E1554M-E2013 | Standard Test Method for Determining Air Leakage of Air Distribution Systems by Fan Pressurization | R403.3.5 |
| E1827-2011 (2017) | Standard Test Methods for Determining Airtightness of Building Using an Orifice Blower Door | R402.4.1.2 |
| E2178-2013 | Standard Test Method for Air Permeance of Building Materials | R303.1.5 |
| E3158-2018 | Standard Test Method for Measuring the Air Leakage Rate of a Large or Multizone Building | R402.4.1.2 |
| CSA | 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/A440-17 | North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights | ((R402.4.3)) R402.4.2 |
| CSA 55.1-2015 | Test Method for Measuring Efficiency and Pressure Loss of Drain Water Heat Recovery Systems | R403.5.4, Table R406.2 |
| CSA 55.2-2015 | Drain Water Heat Recovery Units | R403.5.4 |
| CSA P.4.1-15 | Testing Method for Measuring Annual Fireplace Efficiency | ((R402.4.2.1)) R403.7.1 |
| DASMA | Door and Access Systems Manufacturers Association 1300 Sumner Avenue Cleveland, OH 44115-2851 | |
| 105-2017 | Test Method for Thermal Transmittance and Air Infiltration of Garage Doors and Rolling Doors | R303.1.3 |
| HVI | Home Ventilating Institute 1000 North Rand Road, Suite 214 Wauconda, IL 60084 | |
| 916-18 | Airflow Test Procedure | R303.1.3 |
| ICC | International Code Council, Inc. 500 New Jersey Avenue, N.W. 6th Floor Washington, DC 20001 | |
| Standard reference number | Title | Referenced in code section number |
| ANSI/APSP/ICC 14-2019 | American National Standard for Portable Electric Spa Energy Efficiency | R403.11 |
| ANSI/APSP/ICC 15a-2011 | American National Standard for Residential Swimming Pool and Spa Energy Efficiency—Includes Addenda A approved January 9, 2013 | R403.12 |
| ANSI/RESNET/ICC 380-2019 | Standard for Testing Airtightness of building, Dwelling Unit and Sleeping Unit Enclosures; Airtightness of Heating and Cooling Air Distribution Systems, and Airflow of Mechanical Ventilation Systems | R402.4.1.2 |
| IBC-21 | International Building Code | R201.3, R303.2, R402.11, R4501.4 |
| ICC 400-17 | Standard on the Design and Construction of Log Structures | Table R402.1.1 |
| ICC 500-2020 | ICC/NSSA Standard for the Design and Construction of Storm Shelters | R402.5 |
| IFC-21 | International Fire Code | R201.3, R501.4 |
| IFGC-21 | International Fuel Gas Code | R201.3, R501.4 |
| IFGC-21 | International Mechanical Code | R201.3, R403.3.2, R403.6, R501.4 |

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| IPMC-21 | International Property Maintenance Code | R501.4 |
| IRC-21 | International Residential Code | R104.2.1, R201.3, R303.2, R401.2, R403.2.2, R403.5, R406.1, R406.2, Table R406.2 |
| IEEE | The Institute of Electrical and Electronic Engineers, Inc. 3 Park Avenue New York, NY 10016-5997 | |
| Standard reference number | Title | Referenced in code section number |
| 515.1-2012 | IEEE Standard for the Testing, Design, Installation and Maintenance of Electrical Resistance Trace Heating for Commercial Applications | R403.5.1.2 |
| ISO | 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/IEC ((17024-212)) <u>17024-2012</u> | Conformity Assessment: General requirements for bodies operating certification of persons | R402.4.1.2 |
| NEEA | 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)) <u>R406.3</u> |
| <u>NEEA-2019</u> | <u>Advanced Water Heating Specifications for Gas-Fueled Residential Storage Water Heaters, Version 1.0.</u> | <u>Table R406.3</u> |
| NEEP | Northeast Energy Efficiency Partnership, Inc. 24 School Street, 2nd Floor Boston, MA 02108-4314 | |
| Standard reference number | Title | Referenced in code section number |
| ccASHP Version 3.1 | Cold Climate Air Source Heat Pump (ccASHP) Product List and Specifications: https:// neep.org/heating-electrification/ccashp- specification-product-list | Table R406.3 |
| NEMA | National Electrical Manufacturers Association 1300 17th Street N No. 900 Arlington, VA 22209 | |
| Standard reference number | Title | Referenced in code section number |
| OS4-2016 | Requirements for Air-Sealed Boxes for Electrical and Communications Applications | ((R402.4.6)) <u>R402.4.4</u> |
| NFPA | National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7417 | |
| Standard reference number | Title | Referenced in code section number |
| 70-20 | National Electrical Code | R501.4 |
| NFRC | National Fenestration Rating Council, Inc. 6305 Ivy Lane, Suite 140 Greenbelt, MD 20770 | |
| Standard reference number | Title | Referenced in code section number |
| 100-2020 | Procedure for Determining Fenestration Products <i>U</i> -factors | R303.1.3 |
| 200-2020 | Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence | R303.1.3 |
| 400-2020 | Procedure for Determining Fenestration Product Air Leakage | ((R402.4.3)) <u>R402.4.2</u> |
| UL | Underwriters Laboratory 333 Pfingsten Road Northbrook, IL 60062 | |
| Standard reference number | Title | Referenced in code section number |

| | | |
|---------------------------------|--|-----------------------------------|
| UL 127-11 | Factory Built Fireplace | ((R402.4.2)) <u>R402.3.6</u> |
| UL 515-11 | Electric Resistance Heat Tracing for Commercial and Industrial Applications | R403.5.1.2 |
| UL 907-94 | Fireplace Accessories (with revisions through April 2010) | ((R402.4.2)) <u>R402.3.6</u> |
| US-FTC | 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 (2015) | R-value Rule | Rule R303.1.4 |
| WDMA | 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/A440-17 | North American Fenestration Standard/Specification for Windows, Doors and Unit Skylights | ((R402.4.3)) <u>R402.4.2</u> |
| WSU | 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. WSUEEP15-016 | R403.3.3 |

[Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and chapter 19.27A RCW. WSR 23-02-060, 23-12-102, and 23-20-022, § 51-11R-51000, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160 and chapter 19.27 RCW. WSR 20-01-047, § 51-11R-51000, filed 12/9/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-51000, filed 1/6/16, effective 7/1/16.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

WSR 23-21-106

PROPOSED RULES

BUILDING CODE COUNCIL

[Filed October 18, 2023, 10:35 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-12-041.

Title of Rule and Other Identifying Information: Chapter 51-11C WAC, amendment of the 2021 Washington State Energy Code (WSEC), Commercial.

Hearing Location(s): On November 21, 2023, at 10 a.m. - 2 p.m., at Yakima City Council Chambers, 129 North 2nd Street, Yakima, WA 98901; and on November 22, 2023, at 10 a.m. - 2 p.m., at DES Presentation Room (1213), 1500 Jefferson Street S.E., Olympia, WA 98504. The meetings may be accessed in person or via Zoom or conference call. The Zoom link and phone are provided in the agenda link at sbcc.wa.gov, as are the instructions and guidelines for providing testimony.

Date of Intended Adoption: November 28, 2023.

Submit Written Comments to: Washington State Building Code Council, P.O. Box 41449, Olympia, WA 98504-1449, email sbcc@des.wa.gov, by November 22, 2023.

Assistance for Persons with Disabilities: Contact Annette Harworth, phone 360-407-9255, email sbcc@des.wa.gov, by November 16, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The building code council (council) is entering rule making to modify sections in the commercial and residential energy codes to address legal uncertainty stemming from the decision in *California Restaurant Association (CRA) v. City of Berkeley* recently issued by the ninth circuit court of appeals. While the requirements in the 2021 WSEC are not exactly analogous to the Berkeley prohibition on gas infrastructure, the council moved forward to address the ruling expanding the scope of the Energy Policy and Conservation Act of 1975 (EPCA) preemption provisions. The council sought public input on areas where the code may be impacted by a preemption issue and developed a proposed rule addressing those areas while retaining the efficiency gains made towards the goal of RCW 19.27A.160.

There are two different options in this proposed rule. Both options achieve the same effect, but reach them by different methods. They also have many identical provisions. Only one option will be selected as a permanent rule. Option 1 (shown with the footer "OTS-5008.3") establishes a fossil fuel compliance path in Section C401.3, noting where changes must be made in other sections of the code. Option 2 (shown with the footer "OTS 5009.3") makes changes throughout the code to establish requirements for fossil fuel appliances. Proposals marked with an asterisk are in both options. When testifying, please state which option you are speaking to or which option you prefer.

Proposed Changes to the 2021 WSEC, Commercial Provisions: Proposals marked with an asterisk are in both Option 1 and Option 2.

OPTION 1:

1. ***C101.1 Title.** The effective date is changed to March 15, 2024.

2. ***C108.1 Referenced codes and standards.** Corrects the chapter number for the referenced standards.

3. ***District Energy Efficiency Factor.** A new definition is added for district energy use to support the changes from a carbon emissions comparison standard to a site energy use standard.

4. **C401.2 Application.** A pointer is provided to indicate the new fossil fuel compliance path proposed in Option 1.

5. **C401.2.2 Application to process equipment.** A reference is inserted to capture the new fossil fuel compliance path as it impacts the other cited sections. Section C404.2 is removed as the new language is no longer applicable to process equipment as it is now within the reference to C401.3 item 2.

6. **C401.3 Fossil Fuel Compliance Path** (C401.3 through C401.3.6). A new section is added outlining all the modifications required by the code when a combustion appliance is used for space or water heating, along with the additional amount of efficiency credits that will need to be attained. Sections C401.3.3.1 and C401.3.3.2 contain equations to decrease the number of credits needed based on the percentage of installed combustion appliances and any applicable exceptions to the various heat pump requirements. The limit for renewable energy credits is increased in response to the increase in required efficiency credits. Section C401.3.3.5 provides a method of area weighting credits in a multi-occupancy building. Section C401.3.6 requires the placement of an electrical infrastructure for ease of later conversion to electric heat pump appliances. Note that the electric readiness provisions are not a part of Option 2.

7. **C403.1.4 Use of electric resistance and fossil fuel-fired HVAC heating equipment.** References to specific supplemental heat types is replaced with a generic reference to supplemental heat. New exceptions are added to Exception 5.2 for controls in some air to air heat pump types.

8. ***C403.4.1.1 Heat pump supplemental heat control.** This section was rewritten, in conjunction with Exception 5.2 of Section C403.1.4, to avoid any EPCA conflict with PTHP units that are not required to test down to 17°F.

9. **C406.1, C406.1.1, C406.1.1.1, C406.1.1.2.** Minor editorial corrections to reference the correct table since a new table C403.2(2) was added in Option 1.

10. **C406.1.2 Discrete area-weighted project compliance.** This section was revised to correlate with and differentiate from the area-weighting requirements in Section C401.3.3.5.

11. **C406.2 Additional energy efficiency credit measures. Table C406.2** was renamed as C406.2(1) as a new **Table C406.2(2)** was added for the fossil fuel compliance path in Section C401.3. The credits in the new table were adjusted based on the relative efficiency gain for fuel-fired appliances

12. **C406.2.2.1 Improved HVAC TSPR** (also **C406.2.2.2.2, C406.2.2.3.2**). Minor editorial corrections to reference the correct table since a new table C403.2(2) was added in Option 1.

13. **C406.2.4.2 Enhanced digital lighting controls.** Minor editorial corrections to reference the correct table since a new table C403.2(2) was added in Option 1.

14. **C406.2.5 On-site and off-site renewable energy.** Minor editorial corrections to reference the correct table since a new table C403.2(2) was added in Option 1.

15. **C406.2.7.1 Self-regulated heat trace system** (also **C406.2.7.2**). Minor editorial corrections to reference the correct table since a new table C403.2(2) was added in Option 1.

16. **C406.2.14 Enhanced commercial kitchen equipment.** Minor editorial corrections to reference the correct table since a new table C403.2(2) was added in Option 1.

17. ***Table C407.2 Mandatory Compliance Measures for Total Building Performance Method.** Section C403.1.4 for heat pump space heating was removed from the mandatory measures table, as was Section C404.2.1. Section C403.3.6 was also removed since it is mostly redundant of Section C403.7.6.1. The comment section under C403.7 was corrected to specify the exemption of Section C403.7.6.2.

18. ***C407.3 Performance-based compliance.** This section was revised to change it from a carbon emissions baseline to a site energy use baseline. Energy use from district energy systems is regulated through the coefficient of performance (COP) ratio for the district energy sources.

19. ***C407.3.3.1 Utilization of low-carbon district heating and cooling or heating only systems (also C407.3.3.2).** This section is modified to strike the requirements of Appendix G Section G3.1.1.3.3 of ASHRAE 90.1 and deleting the reference to the carbon emissions factors, replacing it with energy use.

20. ***Table C407.3(1):** The carbon emissions factors table is removed from the code as the comparison metric is changed to energy use rather than emissions.

21. ***Table C407.3(2), Building Performance Factors.** The building performance factors were adjusted to align with building site energy use rather than carbon emissions.

22. **C411.1.1 Additional efficiency credits.** Minor editorial corrections to reference the correct table since a new table C403.2(2) was added in Option 1.

23. ***C501.1.1 Existing buildings.** This section was amended in response to the passage of ESHB 1042 in the 2023 state legislature. A sentence from the residential provisions of the International Energy Conservation Code (IECC) was added to explicitly exempt unchanged portions of existing buildings from complying with the current code.

24. ***C503.4 Building mechanical systems.** A reference to Section C407 was added to allow total building performance as a compliance method.

25. **C503.4.6 Addition or replacement of heating appliances.** Adds a reference to the new fossil fuel path in C401.3. Exception 7 was reworded for clarity.

26. ***Table C503.4.6, Compliance options for mechanical heating equipment alterations.** The efficiency improvements for equipment types 3 and 4 were changed to a five percent improvement to align with EPCA exemption to the preemption rule under 42 U.S.C. § 6297 (f)(3) item E.

27. **C503.5 Service water heating equipment.** A reference to Section C407 was added to allow total building performance as a compliance method. A reference is also added to the fossil fuel path under Section C401.3, and type-specific language on service water heating is removed.

28. ***Appendix D:** Section D201 and Table D201 are amended to correct the table name, since the originally referenced table no longer exists.

OPTION 2

1. ***C101.1 Title.** The effective date is changed to March 15, 2024.

2. ***C108.1 Referenced codes and standards.** Corrects the chapter number for the referenced standards.

3. ***District Energy Efficiency Factor.** A new definition is added for district energy use to support the changes from a carbon emissions comparison standard to a site energy use standard.

4. **C403.1.4 Use of electric resistance and fossil fuel-fired HVAC heating equipment.** This section is separated into two parts: One for fossil fuel appliances and one for heat pumps. References to specific supplemental heat types is replaced with a generic reference to supplemental heat. New exceptions are added to Exception 5.2 for controls in some air to air heat pump types.

5. ***C403.4.1.1 Heat pump supplemental heat control.** This section was rewritten, in conjunction with Exception 5.2 of Section C403.1.4, to avoid any EPCA conflict with packaged terminal heat pump units that are not required to test down to 17°F.

6. **C404.2 Service water heating equipment performance efficiency.** This section is separated into two parts: One for fossil fuel appliance and one for heat pumps.

7. **C406.1 Additional energy efficiency and load management measures credit requirements.** The exceptions are amended to cite the existing credit table or the new fossil fuel credit table added in Option 2.

8. **C406.1.1 Tenant spaces.** The section was amended to refer to both the existing credit table and the new fossil fuel credit table.

9. **C406.1.1.1 Applicable envelope, renewable and elevator energy credits.** The section was amended to refer to both the existing credit table and the new fossil fuel credit table.

10. **C406.1.1.2 Applicable HVAC and service water heating credits.** The section was amended to refer to both the existing credit table and the new fossil fuel credit table.

11. **C406.1.2 Discrete area-weighted project compliance.** This section was revised for clarity and to better correlate with and differentiate from other area-weighting requirements within the code.

12. **C406.1.3 Fossil fuel pathways.** This section was added to specify how buildings using the new fossil fuel pathway in Section C403.1.4 shall comply with the additional efficiency credit requirements in Section C406 and provides a method for calculating the necessary credits.

13. **C406.2 Additional energy efficiency credit measures.** This section continues laying out the compliance path for buildings using the fossil fuel pathway or when using a mixed fuel heating system [to] comply with Section C406.

14. **Table C406.2(1), Efficiency measure credits for heat pump pathways.** Table C406.2 was revised to be specific for buildings using the heat pump pathway. The credits are different between this table and Table C406.2(2) so that measures that have a greater efficiency with a specific appliance type will have more credits in that pathway.

15. **Table C406.2(2), Efficiency measure credits for fossil fuel pathways.** This new table was added with specific measure credits for the fossil fuel pathway.

16. **C406.2.2.1/C406.2.2.2.2/C406.2.2.3.3/C406.2.4.2.** These sections were amended to refer to both the existing credit table and the new fossil fuel credit table.

17. **C406.2.5 On-site and off-site renewable energy.** An exception was added to the equation to allow up to 80 percent of the necessary credits to come from renewable energy. Additionally, a minor editorial change was made to refer to the two credit tables.

18. **C406.2.6 Reduced energy use in service water heating.** A reference was added to the new Section C406.2.6.4.

19. **C406.2.6.3 Heat pump service water heating (option 1).** A second heat pump water heating option is added, so this existing section

is identified as option 1. The modeling for the credit value is still ongoing.

20. **C406.2.6.4 Heat pump service water heating (option 2)**. Language from the 2018 code is brought back as a credit option for what is no longer considered the baseline water heating standard.

21. **C406.2.6.5 High efficiency service water heating, gas-fired**. A credit option is added for a high efficiency gas water heater.

22. **C406.2.6.6 High efficiency service water heating, gas heat pump**. A credit option is added for a gas heat pump water heater. The modeling for the credit value is still ongoing.

23. **C406.2.7.1/C406.2.14**. These sections were amended to refer to both the existing credit table and the new fossil fuel credit table.

24. ***Table C407.2, Mandatory Compliance Measures for Total Building Performance Method**. Section C403.1.4 for heat pump space heating was removed from the mandatory measures table, as was Section C404.2.1. Section C403.3.6 was also removed since it is mostly redundant of Section C403.7.6.1. The comment section under C403.7 was corrected to specify the exemption of Section C403.7.6.2.

25. ***C407.3 Performance-based compliance**. This section was revised to change it from a carbon emissions baseline to a site energy use baseline. Energy use from district energy systems is regulated through the COP ratio for the district energy sources.

26. ***C407.3.3.1 Utilization of low-carbon district heating and cooling or heating only systems (also C407.3.3.2)**. This section is modified to strike the requirements of Appendix G Section G3.1.1.3.3 of ASHRAE 90.1 and deleting the reference to the carbon emissions factors, replacing it with energy use.

27. ***Table C407.3(1)**: The carbon emissions factors table is removed from the code as the comparison metric is changed to energy use rather than emissions.

28. ***Table C407.3(2), Building Performance Factors**. The building performance factors were adjusted to align with building site energy use rather than carbon emissions.

29. **C411.1.1 Additional efficiency credits**. The section was amended to refer to both the existing credit table and the new fossil fuel credit table.

30. ***C501.1.1 Existing buildings**. This section was amended in response to the passage of ESHB 1042 in the 2023 state legislature. A sentence from the residential provisions of the IECC was added to explicitly exempt unchanged portions of existing buildings from complying with the current code.

31. ***C503.4 Building mechanical systems**. A reference to Section C407 was added to allow total building performance as a compliance method.

32. **C503.4.6 Addition or replacement of heating appliances**. Exception 7 was reworded for clarity.

33. ***Table C503.4.6, Compliance options for mechanical heating equipment alterations**. The efficiency improvements for equipment types 3 and 4 were changed to a five percent improvement to align with EPCA exemption to the preemption rule under 42 U.S.C. § 6297 (f)(3) item E.

34. **C503.5 Service water heating equipment**. A reference to Section C407 was added to allow total building performance as a compliance method. Type-specific language on service water heating is removed.

35. **Appendix D**: Section D201 and Table D201 are amended to correct the table name, since the originally referenced table no longer exists.

Reasons Supporting Proposal: The proposal addresses EPCA of 1975 preemption issues (42 U.S.C. § 6201 et seq.) as interpreted in the recent United States court of appeals for the ninth circuit ruling in *CRA vs. City of Berkeley* and corrects editorial errors within the rule while retaining energy efficiency gains towards the goals in RCW 19.27A.020, 19.27A.160, and Executive Order 16-07.

Statutory Authority for Adoption: RCW 19.27A.020, 19.27A.025, 19.27A.160.

Statute Being Implemented: Chapters 19.27A, 19.27 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 rule shows two options. The intent is that the council will be moving one of these options forward as the permanent rule and is seeking public comment on the preferable method for the changes to the code. Both options achieve the same effect, but reach them by different methods. They also have many identical provisions. Option 1 (shown with the footer "OTS-5008.3") establishes a fossil fuel compliance path in Section C401.3, noting where changes must be made in other sections of the code. Option 2 (shown with the footer "OTS-5009.3") makes changes throughout the code to establish requirements for fossil fuel appliances. When testifying, please state which option you are speaking to or which option you prefer.

The council is still awaiting the modeling to be completed to establish the credit values for some of the options (17 in (1) and 20 in (2)) in Tables C406.2 (1) and (2). The results of the modeling will be submitted as part of the public testimony on this proposed rule.

Name of Proponent: Washington state building code council and various stakeholders, governmental.

Name of Agency Personnel Responsible for Drafting and Implementation: Krista Braaksma, 1500 Jefferson [Street] S.E., P.O. Box 41449, Olympia, WA, 360-407-9278; and Enforcement: Local jurisdictions.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Stoyan Bumbalov, 1500 Jefferson [Street] S.E., PO Box 41449, Olympia, WA 98504-1449, phone 360-407-9277, email Stoyan.bumbalov@des.wa.gov.

Scope of exemption for rule proposal from Regulatory Fairness Act requirements:

Is not exempt.

The proposed rule does impose more-than-minor costs on businesses.

Small Business Economic Impact Statement

There are costs imposed by the proposed rules but the costs do not fall disproportionately on small businesses. These rules will not affect the distribution of impacted work, whether by small businesses or not, doing the work. The rules do not impact employment, reporting, or recordkeeping.

Description: The council is filing a proposed rule to amend the 2021 edition WSEC: Chapter 51-11C WAC. The proposal addresses EPCA of 1975 preemption issues (42 U.S.C. § 6201 et seq.) as interpreted in the recent United States court of appeals for the ninth circuit ruling in *CRA vs. City of Berkeley*.

The administrative compliance requirements are under the authority of the local government. RCW 19.27.050. Enforcement activities including permit issuance, plan review and approval, and inspections occur at the local level. Requirements for construction document submittal and other reporting requirements are determined by the local jurisdiction and are consistent with previously established policies. The proposed amendments to chapter 51-11C WAC include specific technical requirements for building construction consistent with national standards.

Professional Services: Washington has had a statewide building code in effect since 1974. The local enforcement authority having jurisdiction administers the codes through the building and/or fire departments. Administrative procedures for state building code compliance are established and will not be changed by the adoption of the update to the current building codes. Small businesses will employ the same types of professional services for the design and construction of buildings and systems to comply with the state building code.

The proposed rule updates the state building code and does not require additional equipment, supplies, labor or other services. Services needed to comply with the building code are existing within the construction industry as required by the local authority having jurisdiction.

Costs of Compliance for Businesses: The council accepted proposals to amend WSEC to address any possible issues of preemption of a federal law, without affecting the current energy efficiency of the code. Each proponent must identify where a proposed amendment has an economic impact and must quantify costs. The council developed a specific set of forms for WSEC, so proponents could identify where a proposed amendment was editorial, technical, or a policy change.

The council received 19 proposals addressing the issue. These proposals mostly addressed how to address the use of fuel-fired appliances for space and water heating. The energy code technical advisory group (TAG) recommended approval of five amendments as submitted or as modified. Two of these proposed amendments were identified by TAG as having a cost. Those costs are associated with the requirement for buildings using fuel fired appliances for space or water heating to achieve more additional efficiency credits than are required for heat pump appliances.

The use of fossil fuel appliances would require between seven and 236 additional credits, depending on the type of building and equipment used. The cost will vary depending on the options selected to comply with the requirements of Section C406, and will only impact those selecting to use combustion heating equipment. The options selected would depend on the design of the building and any specific features necessary to achieve the desired design and function. The associated option costs are applicable to all construction under WSEC. The cost impact to small businesses would be the same as the impact on larger businesses.

Loss of Sales or Revenue: The proposed rules make the state code for building construction consistent with national standards. Businesses with new products or updated test or design standards are recognized in the updated building code. For these businesses, there will be a gain in sales and revenue.

The results of reduced energy use in buildings include avoiding the need for new power generation, reducing environmental impact, and providing local employment. The legislative findings state that energy

efficiency is the cheapest, quickest, and cleanest way to meet rising energy needs, confront climate change, and boost our economy.

Cost of Compliance for Small Businesses: The majority of businesses affected by the updates to the building codes are small businesses; over 95 percent of those listed in the construction and related industries have under 50 employees. The costs per employee are comparable between the largest businesses and the majority of small businesses. The cost to comply with the updated codes is not a disproportionate impact on small business. Where the council found the cost of compliance for small businesses to be disproportionate, the proposed rule mitigates the cost. The proposed rules include a definition of small business and provide exceptions for compliance with the updated rule.

Small Businesses Involved in the Development of the Rule: The council conducted open public meetings of the energy code TAG, available via Zoom and telephone conference bridge, and allowed comment on every item on every agenda.

List of Industries: Below is a list of industries required to comply with the commercial energy code and includes the minor cost threshold as reported by the office for regulatory innovation and assistance:

| 2017 Industry NAICS Code | NAICS Code Title | Minor Cost Estimate | 1% of Avg Annual Payroll | 0.3% of Avg Annual Gross Business Income |
|--------------------------|--|---------------------|---|---|
| 236116 | New Multifamily Housing Construction (except For-Sale Builders) | \$32,067.43 | \$17,160.94 2020 Dataset pulled from USBLS | \$32,067.43 2020 Dataset pulled from DOR |
| 236118 | Residential Remodelers | \$1,457.74 | \$1,457.74 2020 Dataset pulled from USBLS | \$901.20 2020 Dataset pulled from DOR |
| 236210 | Industrial Building Construction | \$59,169.45 | \$59,169.45 2020 Dataset pulled from ESD | \$53,925.71 2020 Dataset pulled from DOR |
| 236220 | Commercial and Institutional Building Construction | \$41,552.81 | \$18,126.81 2020 Dataset pulled from ESD | \$41,552.81 2020 Dataset pulled from DOR |
| 238150 | Glass and Glazing Contractors | \$5,255.36 | \$9,574.95 2019 Dataset pulled from CBP | \$5,255.36 2020 Dataset pulled from DOR |
| 238160 | Roofing Contractors | \$3,589.99 | \$5,007.86 2019 Dataset pulled from CBP | \$3,589.99 2020 Dataset pulled from DOR |
| 238170 | Siding Contractors | \$1,905.61 | \$2,485.86 2019 Dataset pulled from CBP | \$1,905.61 2020 Dataset pulled from DOR |
| 238210 | Electrical Contractors and Other Wiring Installation Contractors | \$5,941.60 | \$9,599.33 2019 Dataset pulled from CBP | \$5,941.60 2020 Dataset pulled from DOR |
| 238220 | Plumbing; Heating; and Air-Conditioning Contractors | \$5,353.76 | \$11,047.00 2019 Dataset pulled from CBP | \$5,353.76 2020 Dataset pulled from DOR |
| 238310 | Drywall and Insulation Contractors | \$3,725.66 | \$9,461.67 2019 Dataset pulled from CBP | \$3,725.66 2020 Dataset pulled from DOR |
| 321911 | Wood Window and Door Manufacturing | \$45,151.12 | \$18,811.08 2020 Dataset pulled from ESD | \$45,151.12 2020 Dataset pulled from DOR |

| 2017 Industry NAICS Code | NAICS Code Title | Minor Cost Estimate | 1% of Avg Annual Payroll | 0.3% of Avg Annual Gross Business Income |
|--------------------------|--|---------------------|---|---|
| 321992 | Prefabricated Wood Building Manufacturing | \$5,391.09 | \$5,391.09 2020 Dataset pulled from ESD | \$4,888.53 2020 Dataset pulled from DOR |
| 332311 | Prefabricated Metal Building and Component Manufacturing | \$21,638.20 | \$10,043.73 2020 Dataset pulled from USBLS | \$21,638.20 2020 Dataset pulled from DOR |
| 332321 | Metal Window and Door Manufacturing | \$26,369.28 | \$14,505.40 2020 Dataset pulled from ESD | \$26,369.28 2020 Dataset pulled from DOR |
| 332322 | Sheet Metal Work Manufacturing | \$23,337.23 | \$23,337.23 2020 Dataset pulled from ESD | \$16,556.52 2020 Dataset pulled from DOR |
| 423720 | Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers | \$24,486.53 | \$16,589.10 2020 Dataset pulled from ESD | \$24,486.53 2020 Dataset pulled from DOR |
| 541310 | Architectural Services | \$9,221.65 | \$9,221.65 2020 Dataset pulled from ESD | \$3,738.99 2020 Dataset pulled from DOR |
| 541330 | Engineering Services | \$14,801.92 | \$14,801.92 2020 Dataset pulled from USBLS | \$7,177.43 2020 Dataset pulled from DOR |

A copy of the statement may be obtained by contacting Stoyan Bumbalov, P.O. Box 41449, Olympia, WA 98504-1449, phone 360-407-9277, email Stoyan.bumbalov@des.wa.gov.

September 15, 2023
Tony Doan
Council Chair

OTS-5008.3

OPTION 1

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23 [11/26/19], and 9/25/23, effective 3/15/24 [7/1/13])

WAC 51-11C-10100 Section C101—Scope and general requirements.

C101.1 Title. This code shall be known as the *Washington State Energy Code*, and shall be cited as such. It is referred to herein as "this code."

The 2021 edition of the Washington State Energy Code is hereby adopted. The Washington State Energy Code adopted under chapter 51-11C WAC shall become effective in all counties and cities of this state on (~~July 1, 2023~~) March 15, 2023.

C101.2 Scope. This code applies to *commercial buildings* and the buildings sites and associated systems and equipment. References in this code to Group R shall include Group I-1, Condition 2 assisted living facilities licensed by Washington state under chapter 388-78A WAC and Group I-1, Condition 2 residential treatment facilities licensed by Washington state under chapter 246-337 WAC. Building areas that contain Group R sleeping units, regardless of the number of stories in height, are required to comply with the commercial sections of the energy code.

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. A temporary growing structure is not considered a building for the purposes of this code. However, the installation of other than listed, portable mechanical equipment or listed, portable lighting fixtures is not allowed.

C101.3 Intent. This code shall regulate the design and construction of buildings for the use and conservation of energy over the 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-10100, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-10100, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, and chapters 19.27, 19.27A, and 34.05 RCW. WSR 17-17-162, § 51-11C-10100, filed 8/23/17, effective 10/1/17. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-10100, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-10100, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [16-03-072], filed 7/1/22, 6/7/23, and 9/25/23 [1/19/16], effective 3/15/24 [7/1/16])

WAC 51-11C-10800 Section C108—Referenced standards.

C108.1 Referenced codes and standards. The codes and standards referenced in this code shall be those listed in Chapter ((5)) 6, 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 C108.1.1 and C108.1.2.

C108.1.1 Conflicts. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

C108.1.2 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.

C108.2 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.

C108.3 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-10800, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-10800, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-10800, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23, and 9/25/23 [11/26/19], effective 3/15/24 [7/1/20])

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.

DATA CENTER. A room or series of rooms that share *data center systems* whose primary function is to house equipment for the processing and storage of electronic data, which has a design total *information technology equipment (ITE)* power density exceeding 20 watts per square foot (215 watts per m²) of conditioned area and a total design *ITE* equipment load greater than 10 kW.

DATA CENTER SYSTEMS. HVAC systems, electrical systems, equipment, or portions thereof used to condition *ITE* or electrical systems in a *data center*.

DAYLIGHT RESPONSIVE CONTROL. A device or system that provides automatic control of electric light levels based on the amount of daylight in a space.

DAYLIGHT ZONE. The portion of the building interior floor area that is illuminated by natural daylight through sidelit and toplit fenestration.

DECORATIVE APPLIANCE, VENTED. A vented appliance wherein the primary function lies in the aesthetic effect of the flames.

DEDICATED OUTDOOR AIR SYSTEM (DOAS). A ventilation system that supplies 100 percent outdoor air primarily for the purpose of ventilation without requiring operation of a space-conditioning system fan for outdoor air delivery.

DEMAND CONTROL KITCHEN VENTILATION (DCKV). A system that provides automatic, continuous control over exhaust hood, where required, and make-up air fan speed in response to one or more sensors that monitor cooking activity or through direct communication with cooking appliances.

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 having one or more recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe.

DEMAND RESPONSE SIGNAL. A signal that indicates a price or a request to modify electricity consumption for a limited time period.

DEMAND RESPONSIVE CONTROL. A control capable of receiving and automatically responding to a *demand response signal*.

DESICCANT DEHUMIDIFICATION SYSTEM. A mechanical dehumidification technology that uses a solid or liquid material to remove moisture from the air.

DIRECT DIGITAL CONTROL (DDC). A type of control where controlled and monitored analog or binary data such as temperature and contact closures are converted to digital format for manipulation and calculations by a digital computer or microprocessor, then converted back to analog or binary form to control physical devices.

DIRECTLY OWNED OFF-SITE RENEWABLE ENERGY SYSTEM. An off-site renewable energy system owned by the building project owner.

DISTRICT ENERGY EFFICIENCY FACTOR. Ratio of site energy input at the district plant required to produce a unit of heating or cooling at the project site on an annual basis, supported by calculations approved by the code official.

DOOR, GARAGE. Nonswinging doors rated by DASMA 105 with a single panel or horizontally hinged sectional panels.

DOOR, NONSWINGING. Roll-up, tilt-up, metal coiling and sliding doors, access hatches, and all other doors that are not swinging doors or garage doors with less than or equal to 14 percent glazing.

DOOR, SWINGING. Doors that are hinged on one side and revolving doors.

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.

DX-DEDICATED OUTDOOR AIR SYSTEM UNITS (DX-DOAS UNITS). A type of air-cooled, water-cooled or water source factory assembled product that dehumidifies 100 percent outdoor air to a low dew point and includes reheat that is capable of controlling the supply dry-bulb temperature of the dehumidified air to the designated supply air temperature. This conditioned outdoor air is then delivered directly or indirectly to the conditioned spaces. It may precondition outdoor air by containing an enthalpy wheel, sensible wheel, desiccant wheel, plate heat exchanger, heat pipes, or other heat or mass transfer apparatus.

DYNAMIC GLAZING. Any fenestration product that has the fully reversible ability to change its performance properties, including *U*-factor, SHGC, or VT.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-20204, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-20204, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-24-070, § 51-11C-20204, filed 12/6/16, effective 5/1/17. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-20204, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-20204, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23, and 9/25/23 [11/26/19], effective 3/15/24 [7/1/20])

WAC 51-11C-40100 Section C401—General.

C401.1 Scope. The provisions in this chapter are applicable to commercial buildings and their building sites.

C401.2 Application. Commercial buildings shall comply with the fossil fuel compliance path according to Section C401.3, or with one of the following:

1. Prescriptive compliance. The prescriptive compliance option requires compliance with Sections C402 through C406, and Sections C408, C409, C410, C411, and C412.
2. Total building performance. The total building performance option requires compliance with Section C407.
3. When adopted by the local jurisdiction, the requirements of Appendix F, Outcome-Based Energy Budget, Sections C408, C409, C410, C411, C412 and any specific sections in Table C407.2 as determined by the local jurisdiction. The Proposed Total UA of the proposed building shall be no more than 20 percent higher than the Allowed Total UA as defined in Section C402.1.5.

C401.2.1 Application to existing buildings. Additions, alterations, repairs, and changes of space conditioning, occupancy, or use to existing buildings shall comply with Chapter 5.

C401.2.2 Application to process equipment. Energy using equipment used by a manufacturing, industrial, or commercial process other than for conditioning spaces or maintaining comfort and amenities for the occupants shall comply with Section C401.3 Item 2, C403.3.2, Tables C403.3.2(1) through (16) inclusive, Sections C403.3.4.1 through C403.3.4.3, C403.7.7, C403.9.2.1, C403.10.3, C403.11.2, C403.11.3, (~~C404.2~~) Table C404.2, and Sections C405.8, C410, and C412.

C401.3 Fossil fuel compliance path. Buildings complying with the fossil fuel compliance path shall comply with the prescriptive compliance

path of this code as defined in Item 1 of Section C401.2, and as modified by this Section C401.3.

C401.3.1 Modification of code requirements. For use of this compliance path only, the following changes shall be made to this code:

1. Section C403.1.4 - Space heating. Strike the phrase "...or fossil fuel combustion..." from the first sentence of Section C403.1.4.

2. Section C404.2.1 - Service water heating. Revise the first sentence of Section C404.2.1 to read: "Service hot water shall be provided by fossil fuel water heating equipment, electric air-source heat pump water heating equipment, electric resistance water heating equipment, or a combination of these equipment types meeting the requirements of this section or any combination of the two."

3. Section C406.2.5 - Renewable energy. When determining renewable energy credits in Equation 4-17 of Section C406.2.5, strike the phrase "...limited to 50 percent of the required credits in Section C406.1" in the definition of the factor AEC_{RRA} .

4. Table C406.2 - Efficiency measure credits. Use Table C406.2(2) credit values in place of Table C406.2(1) credit values.

C401.3.2 Fossil fuel equipment. Fossil fuel combustion appliances are permitted for HVAC heating, and shall comply with the applicable efficiency standards referenced in Section C403.3.3.2. Fossil fuel combustion appliances are permitted for service water heating, and shall comply with applicable efficiency standards referenced in Table C404.2.

C401.3.3 Additional efficiency credits. The number of additional efficiency credits required by Table C406.1 shall be increased by the number required in Table C401.3.3, modified as permitted in this section, and is in addition to the energy efficiency credits and load management credits required by Section C406.

EXCEPTION:

The required number of space heating additional efficiency credits are permitted to be reduced in the following instances:

1. Low energy spaces in accordance with Section C402.1.1.1 and equipment buildings in accordance with Section C402.1.2 that are served by space heating systems shall comply with sufficient measures from Table C406.2(1) or Table C406.2(2) to achieve a minimum of 50 percent of the efficiency credits required for new construction by Table C401.3.3, modified as permitted in this section.
2. Building additions that have less than 1,000 square feet of conditioned floor area and that comply with sufficient measures from Table C406.2(1) or Table C406.2(2) to achieve a minimum of 50 percent of the additional efficiency credits required for additions by Table C401.3.3, modified as permitted in this section.
3. Semi-heated spaces in accordance with Section C402.1.1.2 that comply with sufficient measures from Table C406.2(1) or Table C406.2(2) to achieve a minimum of 50 percent of the space heating additional efficiency credits required by Table C401.3.3, modified as permitted in this section.
4. Unconditioned spaces, open parking garages and unheated enclosed parking garages are not required to achieve the additional efficiency credits for space heating required by Table C401.3.3.

**TABLE C401.3.3
ADDITIONAL CREDITS REQUIRED**

| Measure Title | Applicable Section | Occupancy Group | | | | | |
|--|--------------------|-----------------|------------|------------|-----------|------------|------------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| <u>New building - Additional efficiency credits required for space heating systems using the fossil fuel pathway</u> | <u>C401.3.3.1</u> | <u>7</u> | <u>24</u> | <u>101</u> | <u>38</u> | <u>111</u> | <u>56</u> |
| <u>New building - Additional efficiency credits required for service water heating systems using the fossil fuel pathway</u> | <u>C401.3.3.2</u> | <u>198</u> | <u>212</u> | <u>27</u> | <u>17</u> | <u>79</u> | <u>107</u> |
| <u>Building additions - Additional efficiency credits required for space heating systems using the fossil fuel pathway</u> | <u>C401.3.3.1</u> | <u>4</u> | <u>12</u> | <u>51</u> | <u>19</u> | <u>56</u> | <u>28</u> |

| Measure Title | Applicable Section | Occupancy Group | | | | | |
|---|--------------------|-----------------|-----------|---------|---------|---------|-----------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| Building additions - Additional efficiency credits required for service water heating systems using the fossil fuel pathway | C402.3.3.2 | 99 | 106 | 14 | 9 | 40 | 54 |

C401.3.3.1 HVAC credit modification. The number of HVAC heating energy efficiency credits required by Table C401.3.3 is permitted to be decreased according to the following equation:

$$CR = A - (A \times B/C)$$

Where:

- CR = Additional credits required, rounded to the nearest whole number.
- A = Baseline HVAC heating credits from Table C401.3.3.
- B = Installed HVAC heating capacity in kBTU/h of HVAC heating appliances that comply with any of the exceptions to Section C403.1.4.
- C = Total installed heating capacity in kBTU/h of all HVAC heating appliances.

C401.3.3.2 Service water heating credit modification. The number of service water heating energy efficiency credits required by Table C401.3.3 is permitted to be decreased according to the following equation:

$$CR = A - (A \times B/C)$$

Where:

- CR = Additional credits required, rounded to the nearest whole number.
- A = Baseline credits from Table C401.3.3.
- B = Installed service water heating capacity in kBTU/h of service water heating appliances that comply with any of the exceptions to Section C404.2.1.
- C = Total installed service water heating capacity in kBTU/h of all service water heating appliances.

C401.3.4 Renewable energy credit limit. No more than 80 percent of the efficiency credits required by Sections C401.3.2.1 and C401.3.3.1 are permitted to be renewable energy credits defined in Section C406.2.5.

C401.3.5 Discrete area-weighting of additional required credits. In addition to the area-weighted credit requirements in Section C406.1.2, where a building includes multiple occupancies, the additional required credits per Table C401.3.3 shall be determined separately for each occupancy group. Additional required credits shall be prorated on an area-weighted basis for each occupancy group in the same manner as required project credits per Section C406.1.

1. Where a single space heating or service water heating system serves multiple occupancies, the number of additional required credits shall be prorated on an area-weighted basis for each occupancy served.

2. Additional required credits for envelope systems shall be prorated on an area-weighted basis for all occupancies.

3. Occupancies are permitted to be subdivided into discrete areas, with required and achieved credits for each area prorated on an area-weighted basis as required for the occupancy group.

C401.3.6 Electrification readiness. Additionally, the following provisions shall be required for new construction:

1. Provide a spare electrical branch circuit conduit to that appliance sized to support an equivalent heat pump appliance.

2. Provide spare electrical service entrance conduits for the purpose of upgrading the main electrical service to support all heat pump appliances throughout the building.

3. The main electrical room has sufficient space to accommodate increasing the main electrical service's size to support all heat pump appliances throughout the building.

4. Additional accommodations for the utility equipment comprised of transformer(s) and other equipment necessary to support an electrical service upgrade. These accommodations shall include adequate space on the site. If the utility equipment is located in a transformer vault, that vault must include not only the space but the additional cooling for larger transformer(s).

C401.4 Thermal envelope certificate. A permanent thermal envelope certificate shall be completed by an *approved* party. Such certificate shall be posted on a wall in the space where the space conditioning equipment is located, a utility room or other *approved* location. If located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label, or other required labels. A copy of the certificate shall also be included in the construction files for the project. The certificate shall include:

1. R-values of insulation installed in or on ceilings, roofs, walls, foundations and slabs, crawlspace walls and floors, and ducts outside conditioned spaces.

2. U-factors and solar heat gain coefficients (SHGC) of fenestration.

3. Results from any building envelope air leakage testing performed on the building.

Where there is more than one value for any component of the building envelope, the certificate shall indicate the area-weighted average value where available. If the area-weighted average is not available, the certificate shall list each value that applies to 10 percent or more of the total component area.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40100, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40100, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-24-070, § 51-11C-40100, filed 12/6/16, effective 5/1/17; WSR 16-13-089, § 51-11C-40100, filed 6/15/16, effective 7/16/16. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40100, filed

1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40100, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [22-14-091 and 23-12-101], filed 7/1/22, 6/7/23, and 9/25/23 [7/1/22 and 6/7/23], effective 3/15/24 [10/29/23])

WAC 51-11C-40314 Section C403.1.4—HVAC heating equipment.

C403.1.4 Use of electric resistance and fossil fuel-fired HVAC heating equipment. HVAC heating energy shall not be provided by electric resistance or fossil fuel combustion appliances. For the purposes of this section, electric resistance HVAC heating appliances include, but are not limited to, electric baseboard, electric resistance fan coil and VAV electric resistance terminal reheat units and electric resistance boilers. For the purposes of this section, fossil fuel combustion HVAC heating appliances include, but are not limited to, appliances burning natural gas, heating oil, propane, or other fossil fuels.

- EXCEPTIONS:
1. **Low heating capacity.** Buildings or areas of buildings, other than *dwelling units* or sleeping units, that meet the interior temperature requirements of Chapter 12 of the *International Building Code* with a total installed HVAC heating capacity no greater than 8.5 Btu/h (2.5 watts) per square foot of *conditioned space* are permitted to be heated using electric resistance appliances.
 2. **Dwelling and sleeping units.** Dwelling or sleeping units are permitted to be heated using electric resistance appliances as long as the installed HVAC heating capacity in any separate space is not greater than:
 - 2.1. Seven hundred fifty (750) watts in Climate Zone 4, and 1000 watts in Climate Zone 5 in each habitable space with fenestration.
 - 2.2. One thousand (1,000) watts in Climate Zone 4, and 1300 watts in Climate Zone 5 for each habitable space that has two primary walls facing different cardinal directions, each with exterior fenestration. Bay windows and other minor offsets are not considered primary walls.
 - 2.3. Two hundred fifty (250) watts in spaces adjoining the *building thermal envelope* but without fenestration.
 For the purposes of this section, habitable space is as defined in the *International Building Code*. For buildings in locations with exterior design conditions below 4°F (-16°C), an additional 250 watts above that allowed for Climate Zone 5 is permitted in each space with fenestration.
 3. **Small buildings.** Buildings with less than 2,500 square feet (232 m²) of *conditioned floor area* are permitted to be heated using electric resistance appliances.
 4. **Defrost.** Heat pumps are permitted to utilize electric resistance heating when a heat pump defrost cycle is required and is in operation.
 5. **Air-to-air heat pumps.** Buildings are permitted to utilize (~~internal electric resistance heaters to supplement heat pump~~) supplemental heating sources for air-to-air heat pumps that meet all of the following conditions:
 - 5.1. Internal electric resistance heaters have controls that prevent supplemental heater operation when the heating load can be met by the heat pump alone during both steady-state operation and setback recovery.
 - 5.2. The heat pump controls are configured to use the compressor as the first stage of heating down to an outdoor air temperature of 17°F (-8°C) or lower except when in defrost.

EXCEPTIONS TO 5.2:

1. Packaged terminal heat pumps (PTHPs) that comply with the minimum heating efficiency requirements in Table C403.3.2(4) are exempt from heating pump controls capable of operating the compressor as the first stage of heating down to an outdoor air temperature of 17°F (-8°C) or lower.
2. Heat pumps whose minimum efficiency is regulated by NAECA and whose ratings meet the requirements shown in Table C403.3.2(2) and include all usage of internal electric resistance heating are exempt from heat pump controls capable of operating the compressor as the first stage of heating down to an outdoor air temperature of 17°F (-8°C) or lower.
- 5.3. The heat pump complies with one of the following:
 - 5.3.1. Controlled by a digital or electronic thermostat designed for heat pump use that energizes the supplemental heat only when the heat pump has insufficient capacity to maintain set point or to warm up the space at a sufficient rate.
 - 5.3.2. Controlled by a multistage space thermostat and an outdoor air thermostat wired to energize supplemental heat only on the last stage of the space thermostat and when outdoor air temperature is less than 32°F (0°C) except when in defrost.
 - 5.3.3. The minimum efficiency of the heat pump is regulated by NAECA, its rating meets the requirements shown in Table C403.3.2(2), and its rating includes all usage of internal electric resistance heating.
- 5.4. The heat pump rated heating capacity is sized to meet the heating load at an outdoor air temperature of 32°F (0°C) or lower and has a rated heating capacity at 47°F (8°C) no less than 2 times greater than supplemental (~~internal electric resistance~~) heating capacity in Climate Zone 4 and no less than the supplemental (~~internal electric resistance~~) heating capacity in Climate Zone 5, or utilizes the smallest available factory-available internal electric resistance heater.
6. **Air-to-water heat pumps.** Buildings are permitted to utilize electric resistance (for Climate Zone 4 or 5) or fossil fuel-fired (for Climate Zone 5) auxiliary heating to supplement heat pump heating for hydronic heating systems that meet all of the following conditions:
 - 6.1. Controls for the auxiliary (~~electric resistance or fossil fuel-fired~~) heating sources are configured to lock out the supplemental heat when the outside air temperature is above 36°F (2°C), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes.
 - 6.2. The heat pump controls are configured to use the compressor as the first stage of heating down to the lowest exterior design temperature for which the equipment is rated except during startup or defrost operation.
 - 6.3. The heat pump rated heating capacity at 47°F (8°C) is no less than 75 percent of the design heating load at 29°F (-2°C).
7. **Ground source heat pumps.** Buildings are permitted to utilize (~~electric resistance auxiliary heating to supplement~~) supplemental heating sources for heat pump heating for hydronic heating systems with ground source heat pump equipment that meets all of the following conditions:

- 7.1. Controls for the auxiliary ((resistance)) heating sources are configured to lock out the supplemental heat when the equipment source-side entering water temperature is above 42°F (6°C), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes.
- 7.2. The heat pump controls are configured to use the compressor as the first stage of heating.
- 7.3. The ground source heat exchanger shall be sized so that the heat pump annual heating output is no less than 70 percent of the total annual heating output in the final year of a 30-year simulation using IGSHPA listed simulation software.
8. **Small systems.** Buildings in which electric resistance or fossil fuel appliances, including decorative appliances, either provide less than 5 percent of the total building HVAC system heating capacity or serve less than 5 percent of the *conditioned floor area*.
9. **Specific conditions.** Portions of buildings that require fossil fuel or electric resistance space heating for specific conditions *approved* by the *code official* for research, health care, process or other specific needs that cannot practicably be served by heat pump or other space heating systems. This does not constitute a blanket exception for any occupancy type.
10. **Kitchen make-up air.** Make-up air for commercial kitchen exhaust systems required to be tempered by Section 508.1.1 of the *International Mechanical Code* is permitted to be heated by using fossil fuel in Climate Zone 5 or electric resistance in Climate Zone 4 or 5.
11. **District energy.** Steam or hot water district energy systems that utilize fossil fuels as their primary source of heat energy, that serve multiple buildings, and that were already in existence prior to the effective date of this code, including more energy-efficient upgrades to such existing systems, are permitted to serve as the primary heating energy source.
12. **Heat tape.** Heat tape is permitted where it protects water-filled equipment and piping located outside of the *building thermal envelope*, provided that it is configured and controlled to be automatically turned off when the outside air temperature is above 40°F (4°C).
13. **Temporary systems.** Temporary electric resistance heating systems are permitted where serving future tenant spaces that are unfinished and unoccupied, provided that the heating equipment is sized and controlled to achieve interior space temperatures no higher than 40°F (4°C).
14. **Pasteurization.** Electric resistance heat controls are permitted to reset the supply water temperature of hydronic heating systems that serve service water heating heat exchangers during pasteurization cycles of the service hot water storage volume. The hydronic heating system supply water temperature shall be configured to be 145°F (63°C) or lower during the pasteurization cycle.
15. **Freeze protection.** Heating systems sized for spaces with indoor design conditions of 45°F (7°C) and intended for freeze protection are permitted to use electric resistance. The building envelope of any such space shall be insulated in compliance with Section C402.1.
16. **DOAS ERV auxiliary heat.** Dedicated outdoor air systems with energy recovery ventilation are permitted to utilize fossil fuel for Climate Zone 5 or electric resistance in Climate Zone 4 or 5 for auxiliary heating to preheat outdoor air for defrost or as auxiliary supplemental heat to temper supply air to 55°F (13°C) or lower for buildings or portions of buildings that do not have hydronic heating systems.
17. **Low-carbon district energy systems.** Low-carbon district energy systems that meet the definitions of *low-carbon district energy exchange system* or *low-carbon district heating and cooling or heating only systems*.
18. **Essential facilities.** Groups I-2 and I-3 occupancies that by regulation are required to have in place redundant emergency backup systems.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40314, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23, and 9/25/23 [11/26/19], effective 3/15/24 [7/1/20])

WAC 51-11C-40341 Section C403.4.1—Thermostatic controls.

C403.4.1 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. Controls in the same zone or in neighboring zones connected by openings larger than 10 percent of the floor area of either zone shall not allow for simultaneous heating and cooling. 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 activate the economizer when appropriate as the first stage of cooling. See Section C403.5 for further economizer requirements. Where humidification or dehumidification or both is provided, at least one humidity control device shall be provided for each humidity control system.

EXCEPTIONS:

1. 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:
 - 1.1. 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);
 - 1.2. The perimeter system heating and cooling supply is controlled by a thermostat located within the zones served by the system; and
 - 1.3. Controls are configured to prevent the perimeter system from operating in a different heating or cooling mode from the other equipment within the zones or from neighboring zones connected by openings larger than 10 percent of the floor area of either zone.

2. Where an interior zone and a perimeter zone are open to each other with permanent openings larger than 10 percent of the floor area of either zone, cooling in the interior zone is permitted to operate at times when the perimeter zone is in heating and the interior zone temperature is at least 5°F (2.8°C) higher than the perimeter zone temperature. For the purposes of this exception, a permanent opening is an opening without doors or other operable closures.

3. Dedicated outdoor air units that provide ventilation air, make-up air or replacement air for exhaust systems are permitted to be controlled based on supply air temperature. The supply air temperature shall be controlled to a maximum of 65°F (18.3°C) in heating and a minimum of 72°F (22°C) in cooling unless the supply air temperature is being reset based on the status of cooling or heating in the zones served or it being reset based on outdoor air temperature.

C403.4.1.1 Heat pump supplementary heat control. (~~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 (4.4°C).~~) Heat pumps equipped with internal electric resistance heaters shall have controls that prevent supplemental heater operation when the heating load can be met by the heat pump alone during both steady-state operation and setback recovery. Supplemental heater operation is permitted during outdoor coil defrost cycles. Heat pumps equipped with supplemental heaters shall comply with all conditions of Section C403.1.4.

EXCEPTIONS:
 1. Packaged terminal heat pumps (PTHPs) of less than 2 tons (24,000 Btu/hr) cooling capacity and whose ratings meet the requirements shown in Table C403.3.2(4) that have reverse-cycle demand defrost and are configured to operate in heat pump mode whenever the outdoor air temperatures are above 25°F (-3.9°C) and the unit is not in defrost.
 2. Heat pumps whose minimum efficiency is regulated by NAECA and whose ratings meet the requirements shown in Table C403.3.2(2) and include all usage of internal electric resistance heating.

C403.4.1.2 Deadband. Where used to control both heating and cooling, zone thermostatic controls shall be configured to 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 shut off or reduced to a minimum.

EXCEPTIONS:
 1. Thermostats requiring manual changeover between heating and cooling modes.
 2. Occupancies or applications requiring precision in indoor temperature control as approved by the code official.

C403.4.1.3 Setpoint overlap restriction. Where a zone has a separate heating and a separate cooling thermostatic control located within the zone, a limit switch, mechanical stop or direct digital control system with software programming shall be configured to prevent the heating setpoint from exceeding the cooling setpoint and to maintain a deadband in accordance with Section C403.4.1.2.

C403.4.1.4 Heated or cooled vestibules and air curtains. The heating system for heated vestibules and air curtains with integral heating shall be provided with controls configured to shut off the source of heating when the outdoor air temperature is greater than 45°F (7°C). Vestibule heating and cooling systems shall be controlled by a thermostat located in the vestibule configured to limit heating to a temperature not greater than 60°F (16°C) and cooling to a temperature not less than 85°F (29°C).

EXCEPTIONS:
 1. Control of heating or cooling provided by transfer air that would otherwise be exhausted.
 2. Vestibule heating only systems are permitted to be controlled without an outdoor air temperature lockout when controlled by a thermostat located in the vestibule configured to limit heating to a temperature not greater than 45°F (7°C) where required for freeze protection of piping and sprinkler heads located in the vestibule.

C403.4.1.5 Hot water boiler outdoor temperature setback control. Hot water boilers that supply heat to the building through one- or two-pipe heating systems shall have an outdoor setback control that lowers the boiler water temperature based on the outdoor temperature.

C403.4.1.6 Operable opening switches for HVAC system thermostatic control. Operable openings meeting the minimum size criteria of Section

C402.5.11 and that open to the outdoors from a conditioned space must have controls configured to do the following once doors have been open for 5 minutes:

1. Disable the mechanical heating to the zone or reset the space heating temperature setpoint to 55°F or less within 5 minutes of the door open enable signal.

2. Disable the mechanical cooling to the zone or reset the space cooling temperature setpoint to 85°F or more within 5 minutes of the door open enable signal.

EXCEPTION: Hydronic radiant heating and cooling systems.

C403.4.1.7 Demand responsive controls. Thermostatic controls for heating or cooling systems shall be provided with *demand responsive controls* capable of increasing the cooling setpoint and decreasing the heating setpoint by no less than 4°F (2.2°C). The thermostatic controls shall be capable of performing all other functions provided by the control when the *demand responsive controls* are not available. Systems with *direct digital control* of individual zones report to a central control panel shall be capable of remotely increasing the cooling setpoint and decreasing the heating setpoint for each zone by no less than 4°F (2.2°C).

EXCEPTION: Health care and assisted living facilities.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40341, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40341, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40341, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27.020, and 19.27.074. WSR 14-24-122, § 51-11C-40341, filed 12/3/14, effective 1/3/15. Statutory Authority: RCW 19.27A.025, 19.27A.045, and 19.27.074. WSR 13-20-120, § 51-11C-40341, filed 10/1/13, effective 11/1/13. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40341, filed 2/1/13, effective 7/1/13.]

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WAC 51-11C-40600 Section C406—Efficiency and load management measures.

C406.1 Additional energy efficiency and load management measures credit requirements. The project as defined in the building permit shall meet the following requirements as applicable:

1. New buildings, changes in *space conditioning category*, change of occupancy group, and building additions in accordance with Chapter 5 shall comply with sufficient measures from Section C406.2 so as to achieve the minimum number of required efficiency credits shown in Table C406.1.

2. New buildings greater than 5000 gross square feet of floor area shall comply with sufficient measures from Section C406.3 so as to achieve the minimum number of required load management credits shown in Table C406.1.

3. Tenant spaces shall comply in accordance with Section C406.1.1.

4. Projects using discrete area credit weighting shall comply in accordance with Section C406.1.2.

- EXCEPTIONS:
1. Low energy spaces in accordance with Section C402.1.1.1, equipment buildings in accordance with Section C402.1.2, unconditioned spaces, open parking garages, and enclosed parking garages that comply with sufficient measures from Table C406.2(1) to achieve a minimum of 50 percent of the efficiency credits required for new construction. Such projects shall be exempt from the load management requirements in Table C406.1.
 2. Building additions that have less than 1,000 square feet of *conditioned floor area* that comply with sufficient measures from Table C406.2(1) to achieve a minimum of 50 percent of the efficiency credits required for additions.
 3. Warehouses are exempt from the load management credit requirements in Table C406.1.

**Table C406.1
Energy Measure Credit Requirements**

| Required Credits for Projects | Section | Occupancy Group | | | | | |
|--|---------|-----------------|-----------|---------|---------|---------|-----------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| New building energy efficiency credit requirement | C406.2 | 54 | 41 | 42 | 48 | 74 | 49 |
| Building additions energy efficiency credit requirement | C406.2 | 27 | 20 | 21 | 23 | 36 | 21 |
| <i>If proposal 21-GP-136 is not included in the final adoption, then replace the two rows above with the following two rows:</i> | | | | | | | |
| New building energy efficiency credit requirement | C406.2 | 68 | 80 | 48 | 55 | 84 | 49 |
| Building additions energy efficiency credit requirement | C406.2 | 33 | 40 | 24 | 27 | 41 | 24 |
| New building load management credit requirement | C406.3 | 12 | 15 | 27 | 15 | 13 | 26 |

C406.1.1 Tenant spaces. An initial tenant improvement shall comply with sufficient measures from Table C406.2(1) to achieve a minimum of efficiency credits required in Table C406.1 and are not required to achieve any load management credits. In projects with multiple tenant spaces, each tenant space is permitted to apply for different measures provided the weighted average of all areas in the project comply with the overall efficiency credit requirement in Table C406.1. Whole building or addition energy credits shall be allocated to tenant spaces in accordance with Sections C406.1.1.1 and C406.1.1.2.

- EXCEPTIONS:
1. An initial tenant improvement where the core and shell building complied via Section C407 in 2018 or later edition of the Washington State Energy Code.
 2. Previously occupied tenant spaces in existing buildings that comply with this code in accordance with Section C501.

C406.1.1.1 Applicable envelope, renewable and elevator energy credits. Where an entire building or building addition complies with Section C406.2.4, C406.2.9, C406.2.10, or C406.2.14, under an initial tenant improvement permit, tenant spaces within the building qualify for the number of credits assigned to the occupancy group of the tenant space in accordance with Table C406.2(1). Where prior energy credits were achieved under the 2018 Washington State Energy Code, they shall be multiplied by 6 for applicability to this code.

C406.1.1.2 Applicable HVAC and service water heating credits. Where HVAC and service water heating systems and services are installed and comply with Section C406.2.4, C406.2.9, C406.2.10, or C406.2.14 under an initial tenant improvement permit, those systems and services shall

be considered a part of the tenant space. Tenant spaces qualify for the credits assigned to the occupancy group of the tenant space in accordance with Table C406.2(1) if the tenant space includes the distribution system and equipment that the central HVAC systems or service water heating systems were designed to support.

C406.1.2 Discrete area-weighted project compliance. Discrete building areas (~~(shall be)~~) are permitted to select different packages of measures provided that the whole project complies with both the energy and load management credit requirements. Compliance shall be determined as follows:

1. (~~(Project credit requirement shall be the individual occupancy group requirements from Table C406.1 for each discrete area weighted by discrete area conditioned floor area.)~~) Required project credits shall be prorated on an area-weighted basis for each occupancy group by multiplying the occupancy group floor area by the number of credits required, and then dividing this value by the total area of all the occupancy groups combined. Where one occupancy group is less than 10 percent of the floor area of the project, use the primary occupancy group for all credits.

2. (~~(Determine the energy and load management credits achieved for each discrete area based on its occupancy group.)~~) Occupancies are permitted to be subdivided into discrete areas, with required and achieved credits for each area prorated on an area-weighted basis as required for the occupancy group.

3. Where envelope or lighting power credits in Section C406.2.3.1, C406.2.3.2, or C406.2.3.12 are (~~used~~) applied, the lighting power or envelope UA percentage reduction shall be calculated for the project as a whole to determine achieved credits.

(~~3.~~) 4. Determine total project credits achieved by area-weighting ((individual discrete area credits by discrete area conditioned floor area)) the achieved credits by occupancy group in the same manner as for required project credits.

(~~4.~~) 5. A project complies when ((both)) the achieved number of area-weighted energy and load management credits are equal to or greater than the required area-weighted ((project requirement)) number of credits.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40600, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-40600, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40600, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40600, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40600, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40620 Section C406.2—Additional energy efficiency credit measures.

C406.2 Additional energy efficiency credit measures. Each energy efficiency credit measure used to meet credit requirements for the project shall include efficiency that is greater than the energy efficiency required for the building type and configuration requirements in Sections C402 through C405. Measures installed in the project that meet the requirements in Sections C406.2.1 through C406.2.14 shall achieve the credits listed for the measure and occupancy group in Table C406.2(1) or where calculations required by Sections C406.2.1 through C406.2.14 create or modify the table credits, the credits achieved shall be based upon the section calculations.

**Table C406.2(1)
Efficiency Measure Credits**

| Measure Title | Applicable Section | Occupancy Group | | | | | |
|---|--------------------|-----------------|-----------|---------|---------|------------------------------|----------------------------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| 1. Dwelling unit HVAC control | C406.2.1 | NA | 7 | NA | NA | NA | NA |
| 2. Improved HVAC TSPR ^a | C406.2.2.1 | NA | 8 | 11 | 17 | 22 | NA |
| 3. Improve cooling and fan efficiency | C406.2.2.2 | 2 | 2 | 3 | 4 | 3 | 2 |
| 4. Improve heating efficiency | C406.2.2.3 | 2 | 3 | 3 | 10 | 16 | 7 |
| 5. Improved low-carbon district energy system (10% better) | C406.2.2.4 | 3 | 3 | 4 | 11 | 17 | 8 |
| 6. Improved low-carbon district energy system (20% better) ^b | C406.2.2.5 | 9 | 10 | 12 | 33 | 52 | 24 |
| 7. High performance DOAS | C406.2.2.6 | 31 | 31 | 21 | 39 | 40 | 21/ (A) 40 ^c |
| 8. Fault detection & diagnostics (FDD) | C406.2.2.7 | 2 | 2 | 2 | 6 | 9 | 4 |
| 9. 10% reduced lighting power | C406.2.3.1 | 7 | 4 | 18 | 16 | 20 | 15 |
| 10. 20% reduced lighting power ^d | C406.2.3.2 | 13 | 8 | 36 | 32 | 40 | 29 |
| 11. Lamp efficacy improvement | C406.2.3.3 | 5 | 6 | NA | NA | NA | NA |
| 12. Residential lighting control | C406.2.4.1 | NA | 8 | NA | NA | NA | NA |
| 13. Enhanced lighting control | C406.2.4.2 | 1 | 1 | 6 | 6 | 11 | 6 |
| 14. Renewable energy | C406.2.5 | 7 | 12 | 13 | 13 | 10 | 11 |
| 15. Shower drain heat recovery | C406.2.6.1 | 9 | 30 | NA | 3 | NA | NA |
| 16. Service water heat recovery | C406.2.6.2 | 35 | 111 | 13 | 14 | (Grocery) 41 ^e | NA |
| 17. Heat pump water heating | C406.2.6.3 | 81 | 261 | 17 | 33 | (Grocery) 95 ^e | (A-2) 95 ^f |
| 18. Heat trace system | C406.2.7.1 | 6 | 13 | 4 | 1 | NA | 6 |
| 19. Point of use water heater | C406.2.7.2 | NA | NA | 19 | 5 | NA | NA |
| 20. Service hot water distribution right sizing | C406.2.8 | 13 | 42 | NA | NA | NA | NA |
| 21. High performance service hot water temperature maintenance system | C406.2.9 | 6 | 13 | 4 | 1 | NA | 6 |
| 22. High efficiency service hot water circulation system | C406.2.10 | 3 | 6 | 2 | 1 | NA | 4 |

| Measure Title | Applicable Section | Occupancy Group | | | | | |
|--|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| 23. Low flow residential showerheads | C406.2.11 | 3 | 3 | NA | NA | NA | NA |
| 24. Enhanced envelope performance ^g | C406.2.12 | 24 | 20 | 13 | 5 | 19 | 14 |
| 25. Base reduced air leakage ^g | C406.2.13.2 | 29 | 24 | 6 | 3 | 9 | 11 |
| 26. Enhanced reduced air leakage ^g | C406.2.13.3 | 53 | 44 | 11 | 5 | 16 | 20 |
| 27. Enhanced commercial kitchen equipment | C406.2.14 | 30 ^h | 18 ^h | 18 ^h | 30 ^h | 30 ^h | 31 ^h |
| 28. Enhanced residential kitchen equipment | C406.2.15 | 12 | 19 | NA | NA | NA | NA |
| 29. Enhanced residential laundry equipment | C406.2.16 | NA | 6 | NA | NA | NA | NA |
| 30. Heat pump clothes dryers | C406.2.17 | 6 | 6 | NA | NA | NA | NA |
| 31. Efficient elevator equipment | C406.2.18 | 3 | 5 | 5 | 5 | 4 | 4 |

- a Projects using Item 2 shall not use Items 3 through 5.
- b Projects using C406.2.2.5 shall not use C406.2.2.4.
- c For C406.2.2.6, occupancy Group A achieves 40 credits while other occupancy groups within the "all other" category achieve 21 credits.
- d Projects using C406.2.3.2 shall not use C406.2.3.1.
- e Service water heat recovery and heat pump water heating are available in Group M only for grocery stores larger than 10,000 ft². Large mixed retail with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of Section C403.9.2.3.
- f Heat pump water heating efficiency credits are available in the "all other" category only for Group A-2.
- g Buildings or building areas that are exempt from the thermal envelope requirements in accordance with Sections C402.1.1 and C402.1.2, do not qualify for this package.
- h Additional energy efficiency credits, up to the maximum shown in Table C406.2(1), shall be calculated according to Section C406.2.11.

Table C406.2(2)
Efficiency Measure Credits for use with
Fossil Fuel Compliance Path

| Measure Title | Applicable Section | Occupancy Group | | | | | |
|---|--------------------|-----------------|------------|-----------|-----------|---------------------------------|-------------------------------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| <u>1. Dwelling unit HVAC control</u> | <u>C406.2.1</u> | <u>NA</u> | <u>8</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>2. Improved HVAC TSPR^a</u> | <u>C406.2.2.1</u> | <u>NA</u> | <u>9</u> | <u>12</u> | <u>19</u> | <u>24</u> | <u>NA</u> |
| <u>3. Improve cooling and fan efficiency</u> | <u>C406.2.2.2</u> | <u>12</u> | <u>8</u> | <u>14</u> | <u>8</u> | <u>10</u> | <u>10</u> |
| <u>4. Improve heating efficiency</u> | <u>C406.2.2.3</u> | <u>2</u> | <u>3</u> | <u>3</u> | <u>11</u> | <u>18</u> | <u>8</u> |
| <u>5. Improved low-carbon district energy system (10% better)</u> | <u>C406.2.2.4</u> | <u>3</u> | <u>3</u> | <u>4</u> | <u>12</u> | <u>19</u> | <u>9</u> |
| <u>6. Improved low-carbon district energy system (20% better)^b</u> | <u>C406.2.2.5</u> | <u>10</u> | <u>11</u> | <u>13</u> | <u>36</u> | <u>57</u> | <u>26</u> |
| <u>7. High performance DOAS</u> | <u>C406.2.2.6</u> | <u>34</u> | <u>34</u> | <u>23</u> | <u>43</u> | <u>44</u> | <u>23/ (A) 40^c</u> |
| <u>8. Fault detection & diagnostics (FDD)</u> | <u>C406.2.2.7</u> | <u>2</u> | <u>2</u> | <u>2</u> | <u>6</u> | <u>9</u> | <u>4</u> |
| <u>9. 10% reduced lighting power</u> | <u>C406.2.3.1</u> | <u>7</u> | <u>4</u> | <u>18</u> | <u>16</u> | <u>20</u> | <u>15</u> |
| <u>10. 20% reduced lighting power^d</u> | <u>C406.2.3.2</u> | <u>13</u> | <u>8</u> | <u>36</u> | <u>32</u> | <u>40</u> | <u>29</u> |
| <u>11. Lamp efficacy improvement</u> | <u>C406.2.3.3</u> | <u>5</u> | <u>6</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>12. Residential lighting control</u> | <u>C406.2.4.1</u> | <u>NA</u> | <u>8</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>13. Enhanced lighting control</u> | <u>C406.2.4.2</u> | <u>1</u> | <u>1</u> | <u>6</u> | <u>6</u> | <u>11</u> | <u>6</u> |
| <u>14. Renewable energy</u> | <u>C406.2.5</u> | <u>7</u> | <u>12</u> | <u>13</u> | <u>13</u> | <u>10</u> | <u>11</u> |
| <u>15. Shower drain heat recovery</u> | <u>C406.2.6.1</u> | <u>10</u> | <u>33</u> | <u>NA</u> | <u>3</u> | <u>NA</u> | <u>NA</u> |
| <u>16. Service water heat recovery</u> | <u>C406.2.6.2</u> | <u>35</u> | <u>111</u> | <u>13</u> | <u>14</u> | <u>(Grocery) 41^e</u> | <u>NA</u> |

| Measure Title | Applicable Section | Occupancy Group | | | | | |
|---|--------------------|-----------------|-----------------|-----------------|-----------------|---------------------------|-----------------------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| 17. Heat pump water heating | C406.2.6.3 | 135 | 163 | 17 | 33 | (Grocery) 95 ^e | (A-2) 95 ^f |
| 18. Heat trace system | C406.2.7.1 | 6 | 13 | 4 | 1 | NA | 6 |
| 19. Point of use water heater | C406.2.7.2 | NA | NA | 19 | 5 | NA | NA |
| 20. Service hot water distribution right sizing | C406.2.8 | 13 | 42 | NA | NA | NA | NA |
| 21. High performance service hot water temperature maintenance system | C406.2.9 | 6 | 13 | 4 | 1 | NA | 6 |
| 22. High efficiency service hot water circulation system | C406.2.10 | 3 | 6 | 2 | 1 | NA | 4 |
| 23. Low flow residential showerheads | C406.2.11 | 3 | 3 | NA | NA | NA | NA |
| 24. Enhanced envelope performance ^g | C406.2.12 | 24 | 20 | 13 | 5 | 19 | 14 |
| 25. Base reduced air leakage ^g | C406.2.13.2 | 29 | 24 | 6 | 3 | 9 | 11 |
| 26. Enhanced reduced air leakage ^g | C406.2.13.3 | 53 | 44 | 11 | 5 | 16 | 20 |
| 27. Enhanced commercial kitchen equipment | C406.2.14 | 30 ^h | 18 ^h | 18 ^h | 30 ^h | 30 ^h | 31 ^h |
| 28. Enhanced residential kitchen equipment | C406.2.15 | 12 | 19 | NA | NA | NA | NA |
| 29. Enhanced residential laundry equipment | C406.2.16 | NA | 6 | NA | NA | NA | NA |
| 30. Heat pump clothes dryers | C406.2.17 | 6 | 6 | NA | NA | NA | NA |
| 31. Efficient elevator equipment | C406.2.18 | 3 | 5 | 5 | 5 | 4 | 4 |

^a Projects using Item 2 shall not use Items 3 through 5.

^b Projects using C406.2.2.5 shall not use C406.2.2.4.

^c For C406.2.2.6, occupancy Group A achieves 40 credits while other occupancy groups within the "all other" category achieve 21 credits.

^d Projects using C406.2.3.2 shall not use C406.2.3.1.

^e Service water heat recovery and heat pump water heating are available in Group M only for grocery stores larger than 10,000 ft². Large mixed retail with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of Section C403.9.2.3.

^f Heat pump water heating efficiency credits are available in the "all other" category only for Group A-2.

^g Buildings or building areas that are exempt from the thermal envelope requirements in accordance with Sections C402.1.1 and C402.1.2, do not qualify for this package.

^h Additional energy efficiency credits, up to the maximum shown in Table C406.2(2), shall be calculated according to Section C406.2.14.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40620, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40622 Section C406.2.2—HVAC measures.

C406.2.2 More efficient HVAC system performance. All heating and cooling systems shall meet the minimum requirements of Section C403 and efficiency improvements shall be referenced to the minimum efficiency requirements listed in the tables in Section C403.3.2. Where multiple efficiency requirements are listed, equipment shall meet the seasonal efficiencies including SEER, EER/IEER, IPLV or AFUE. Equipment that is larger than the maximum capacity range indicated in the tables in Sec-

tion C403.3.2 shall utilize the values listed for the largest capacity equipment for the associated equipment type shown in the table. Where multiple individual heating or cooling systems serve the project, the improvement shall be the weighted average improvement based on individual system capacity.

For occupancies and systems required to comply with Section C403.1.1, credits are permitted to be achieved by meeting the requirements of Section C406.2.2.1. Other systems are permitted to achieve credits by meeting the requirements of either:

1. Section C406.2.2.2, More efficient HVAC equipment cooling and fan performance.
2. Section C406.2.2.3, More efficient HVAC equipment heating performance.
3. Section C406.2.2.4, High performance dedicated outdoor air system (DOAS).
4. Any combination of Sections C406.2.2.2, C406.2.2.3, and C406.2.2.4.

In addition, energy credits are permitted to be achieved for Section C406.2.2.7, Fault detection and diagnostics, where not otherwise required by Section C403.2.3 or C403.6.10(15).

C406.2.2.1 Improved HVAC TSPR. For systems required to comply with Section C403.1.1, the *HVAC TSPR* shall exceed the minimum requirement by five percent. If improvement is greater, the credits in Table C406.2(1) are permitted to be prorated up to a 20 percent improvement.

C406.2.2.2 More efficient HVAC equipment cooling and fan performance. No less than 90 percent of the total HVAC capacity serving the total *conditioned floor area* of the entire building, building addition or tenant space in accordance with Section C406.1.1 shall comply with Sections C406.2.2.2.1 through C406.2.2.2.3. Where individual equipment efficiencies vary, weigh them based on capacity.

C406.2.2.2.1 HVAC system selection. Equipment installed shall be types that are listed in the tables in Section C403.3.2.

C406.2.2.2.2 Cooling equipment efficiency. Equipment shall exceed the minimum cooling efficiency requirements listed in the tables in Section C403.3.2 by at least 5 percent. Where equipment exceeds the minimum annual cooling efficiency and heat rejection efficiency requirements by more than 5 percent, energy efficiency credits for cooling shall be determined using Equation 4-15, rounded to the nearest whole number.

(Equation 4-15)

$$EEC_{HEC} = EEC_5 \times \left[1 + \frac{CEI - 0.05}{0.05} \right]$$

Where:

- EEC_{HEC} = Energy efficiency credits for cooling efficiency improvement.
- EEC₅ = Section C406.2.2.2 credits from Table C406.2(1).

CEI = The lesser of the improvement above minimum cooling efficiency requirements, minimum heat rejection efficiency requirements, or 20 percent (0.20). Where cooling efficiency varies by system, use the capacity weighted average efficiency improvement for all cooling equipment combined. The CEI expressed as a fraction shall be determined one of the following ways:

For metrics that increase as efficiency increases, CEI shall be calculated as follows:

$$CEI = \frac{CM_{DES}}{CM_{MIN}} - 1$$

For metrics that decrease as efficiency increases, CEI shall be calculated as follows:

$$CEI = \frac{CM_{MIN}}{CM_{DES}} - 1$$

Where:

CM_{DES} = Design cooling efficiency metric, part-load or annualized where available.

CM_{MIN} = Minimum required cooling efficiency metric, part-load or annualized where available from Section C403.3.2.

For data centers using ASHRAE 90.4, CEI shall be calculated as follows:

$$CEI = \frac{AMLC_{MAX}}{AMLC_{DES}} - 1$$

Where:

AMLC_{DES} = As-designed annualized mechanical load component calculated in accordance with ASHRAE 90.4 Section 6.5.

AMLC_{MAX} = Maximum annualized mechanical load component from ASHRAE 90.4 Table 6.5.

C406.2.2.2.3 Minimum fan efficiency. Where fan energy is not included in packaged equipment rating or it is and the fan size has been increased from the as-rated equipment condition, fan power or horsepower shall be less than 95 percent of the allowed fan power in Section C403.8.1.

C406.2.2.3 More efficient HVAC equipment heating performance. No less than 90 percent of the total HVAC capacity serving the total conditioned floor area of the entire building, building addition or tenant space in accordance with Section C406.1.1 shall comply with Sections C406.2.2.3.1 through C406.2.2.3.2.

C406.2.2.3.1 HVAC system selection. Equipment installed shall be types that are listed in the tables in Section C403.3.2. Electric resistance heating shall be limited to 20 percent of system capacity, with the exception of heat pump supplemental heating.

C406.2.2.3.2 Heating equipment efficiency. Equipment shall exceed the minimum heating efficiency requirements of the tables in Section C403.3.2 by at least 5 percent. Where equipment exceeds the minimum annual heating efficiency requirements by more than 5 percent, energy efficiency credits for heating shall be determined using Equation 4-16, rounded to the nearest whole number.

(Equation 4-16)

$$EEC_{HEH} = EEC_5 \times \left[1 + \frac{HEI - 0.05}{0.05} \right]$$

Where:

- EEC_{HEH} = Energy efficiency credits for heating efficiency improvement.
- EEC_5 = Section C406.2.2.2 credits from Table C406.2(1).
- HEI = The lesser of the improvement above minimum heating efficiency requirements or 20 percent (0.20). Where heating efficiency varies by system, use the capacity weighted average percentage for all heating equipment combined. For metrics that increase as efficiency increases, HEI shall be calculated as follows:

$$HEI = \frac{HM_{DES}}{HM_{MIN}} - 1$$

Where:

- HM_{DES} = Design heating efficiency metric, part-load or annualized where available.
- HM_{MIN} = Minimum required heating efficiency metric, part-load or annualized where available from Section C403.3.2.

EXCEPTION: In low energy spaces complying with Section C402.1.1 and *semi-heated spaces* complying with Section C402.1.1.2, no less than 90 percent of the installed heating capacity is provided by electric infrared or gas-fired radiant heating equipment for localized heating applications. Such spaces shall achieve credits for EEC_5 .

C406.2.2.4 Improved low-carbon district energy systems (10 percent better). Not less than 90 percent of the annual service hot water and space heating load, or not less than 90 percent of the annual service hot water, space heating, and space cooling load shall meet the criteria of Section C406.2.2.4.1 or C406.2.2.4.2.

Documentation for the low-carbon district system that is operational prior to the final inspection shall be provided to demonstrate that the definition as modified in Section C406.2.2.4.1 or C406.2.2.4.2 of *low-carbon district energy exchange system* is satisfied.

C406.2.2.4.1 Improved low-carbon district energy exchange systems (10 percent better). Low-carbon district energy exchange systems must demonstrate the following:

1. Forty-five percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat, or renewable energy resources; and
2. No more than 25 percent of the annual heat input to the system comes from fossil fuel or electric-resistance sources.

C406.2.2.4.2 Improved low-carbon district energy heating and cooling or heating only systems (10 percent better). Distribution losses must be accounted for and may not exceed 5 percent of the annual load delivered to buildings served by the system. *Low-carbon district energy heating and cooling or heating only systems* must demonstrate the following:

1. Forty-five percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat, or renewable energy resources and no more than 25 percent of the annual heat input to the system comes from fossil fuel or electric-resistance sources; or
2. No more than 10 percent of the system annual heat input to the system comes from fossil fuels or electric-resistance sources. The remaining annual heat input must be provided using heat pump technology with a minimum annual operating COP of 3.0.

C406.2.2.5 Improved low-carbon district energy systems (20 percent better). Not less than 90 percent of the annual service hot water and space heating load, or not less than 90 percent of the annual service hot water, space heating, and space cooling load shall meet the criteria of Section C406.2.2.5.1 or C406.2.2.5.2.

Documentation for the low-carbon district system that is operational prior to the final inspection shall be provided to demonstrate that the definition as modified in Section C406.2.2.4.1 or C406.2.2.4.2 of *low-carbon district energy exchange system* is satisfied.

C406.2.2.5.1 Improved low-carbon district energy exchange systems (20 percent better). Low-carbon district energy exchange systems must demonstrate the following:

1. Fifty percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat, or renewable energy resources; and
2. No more than 10 percent of the annual heat input to the system comes from fossil fuel or electric-resistance sources.

C406.2.2.5.2 Improved low-carbon district energy heating and cooling or heating only systems (20 percent better). Distribution losses must be accounted for and may not exceed 5 percent of the annual load delivered to buildings served by the system. *Low-carbon district energy heating and cooling or heating only systems* must demonstrate the following:

1. Fifty percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat, or renewable energy resources and no more than 10 percent of the annual heat

input to the system comes from fossil fuel or electric-resistance sources; or

2. No more than 10 percent of the system annual heat input to the system comes from fossil fuels or electric-resistance sources. The remaining annual heat input must be provided using heat pump technology with a minimum annual operating COP of 4.0.

C406.2.2.6 High performance dedicated outdoor air system (DOAS). No less than 90 percent of the total conditioned floor area of the whole project, excluding floor area of unoccupied spaces that do not require ventilation as specified by the *International Mechanical Code*, shall be served by DOAS installed in accordance with Section C403.3.5 with the following adjustments:

1. Minimum heat recovery sensible effectiveness of 80 percent, calculated in accordance with Section C403.3.5.1.

2. Where design outdoor airflow is greater than 500 cfm (250 L/s), the DOAS shall be equipped with an economizer bypass, damper control, or wheel speed control that is active between 55°F (13°C) and 75°F (24°C) outdoor air temperature and minimizes energy recovery or maintains an appropriate DOAS leaving air temperature when the building is generally in cooling, based either on outdoor air temperature or a DDC zone-based cooling system reset.

3. DOAS total combined fan power shall be less than either:

3.1. 0.769 W/cfm (1.55 W/L/s) when calculated in accordance with Section C403.3.5.2.

3.2. Eighty percent of fan power allowance for a constant volume system when calculated in accordance with Section C406.8.1.

This option is not available to areas served by systems utilizing Section C403.2.2.1 exception 5.

C406.2.2.7 Fault detection and diagnostics system. A project not required to comply with Section C403.2.3 or C403.6.10(16) shall achieve energy credits for installing a fault detection and diagnostics system to monitor the HVAC system's performance and automatically identify faults. The installed system shall comply with items 1 through 6 in Section C403.2.3.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40622, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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.

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40623 Section C406.2.3—Lighting measures.

C406.2.3 Reduced lighting power. Interior lighting within the whole project shall achieve credits by complying with Section C406.2.3.1 or C406.2.3.2. In Group R-1 and Group R-2 occupancies, dwelling and sleeping units shall comply with Section C406.2.3.3 and all other areas shall comply with section C406.2.3.1 or C406.2.3.2. Credits apply to the whole Group R-1 or Group R-2 area.

C406.2.3.1 Reduced lighting power option 1. The total connected interior lighting power calculated in accordance with Section C405.4.1 shall be 90 percent or less of the lighting power values specified in Table C405.4.2(1) times the floor area for the building types, or 90 percent or less of the total interior lighting power allowance calculated in accordance with Section C405.4.2.

C406.2.3.2 Reduced lighting power option 2. The total connected interior lighting power calculated in accordance with Section C405.4.1 shall be 80 percent or less of the lighting power values specified in Table C405.4.2(1) times the floor area of the building types, or 80 percent or less of the total interior lighting power allowance calculated in accordance with Section C405.4.2.

C406.2.3.3 Lamp efficacy. No less than 95 percent of the permanently installed light fixtures in dwelling units and sleeping units shall be provided by lamps with a minimum efficacy of 90 lumens per watt.

C406.2.4 Lighting controls. For buildings with nontransient *dwelling units* and *sleeping units*, energy credits shall be achieved by installation of systems that comply with the requirements of Section C406.2.4.1. All other buildings shall achieve energy credits by complying with Section C406.2.4.2. For buildings with mixed occupancies, credits shall be prorated based on floor area.

C406.2.4.1 Residential building lighting control. In buildings with nontransient dwelling units and sleeping units, lighting controls shall be configured to meet the following:

1. Each *dwelling unit* or *sleeping unit* shall have a main control by the main entrance that turns off all the lights and switched receptacles in the unit. The main control shall be permitted to have two controls, one for permanently wired lighting and one for switched receptacles. The main controls shall be clearly identified as "lights master off" and "switched outlets master off."

2. Switched receptacles shall be clearly identified and all switched receptacles shall be located within 12 inches of an unswitched receptacle. Each room shall have a minimum of two switched receptacles except bathrooms, kitchens, and closets.

C406.2.4.2 Enhanced digital lighting controls. Measure credits shall be achieved where no less than 50 percent of the gross floor area within the project has luminaires and lighting controls that include high end trim in compliance with Section C405.2.8.3 and either *luminaire-level lighting controls* in compliance with Section C405.2.8.1 or networked lighting controls in accordance with Section C405.2.8.2. Where *general lighting* in more than 50 percent of the gross floor area complies, the base credits from Table C406.2(1) shall be prorated as follows:

$$[\text{Floor area with high end trim, \%}] \times [\text{Base energy credits for C406.2.4.2}] / 50\%$$

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40623, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40624 Section C406.2.5—Renewable energy measures.

C406.2.5 On-site and off-site renewable energy. Projects installing on-site or off-site renewable energy systems with a capacity of at least 0.1 watts per gross square foot (1.08 W/m²) of building area in addition to the renewable energy capacity required elsewhere in this code shall achieve energy credits for this measure. Renewable energy systems achieving energy credits shall not be used to satisfy other requirements of this code. Off-site renewable energy systems shall comply with Sections C411.2.2 and C411.2.3. Credits shall be prorated from the table value in accordance with Equation 4-17.

(Equation 4-17)

$$AEC_{RRa} = AEC_b \times \frac{\sum(REF \times RR_t) - RR_r}{RR_b \times PGFA}$$

Where:

- AEC_{RRa} = Section C406.2.5 achieved energy credits for this project as calculated in accordance with Equation 4-17, limited to 50 percent of the required credits in Section C406.1.
- RR_t = Actual total rating of on-site and off-site renewable energy systems (W) for each type of renewable energy source in Table C411.2.1.
- RR_r = Rating of renewable energy systems required by Section C411.1, other sections in this code, or used to qualify for exceptions in this code (W).
- RR_b = 0.1 W/square foot (1.08 W/m²)
- PGFA = Project gross floor area, square feet (m²).
- AEC_{0.1} = Section C406.2.5 base credits from Table C406.2(1).
- REF = Renewable Energy Factor from Table C411.2.1.

Informative Note: On-site renewable energy may include thermal service water heating or pool water heating, in which case ratings in Btu/h can be converted to W where W = Btu/h / 3.413.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40624, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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WAC 51-11C-40625 Section C406.2.6—Service water measures.

C406.2.6 Reduced energy use in service water heating. Buildings with service hot water heating equipment that serves the whole building, building addition or tenant space shall achieve credits through compliance with:

1. Section C406.2.6.1, C406.2.6.2, or C406.2.6.3.
2. Sections C406.2.6.1 and C406.2.6.2.
3. Sections C406.2.6.1 and C406.2.6.3.

C406.2.6.1 Shower drain heat recovery. Shower drain heat recovery units shall comply with Section C404.10 and preheat cold water supply to the showers. Potable waterside pressure loss shall be less than 10 psi (69 kPa) at maximum design flow. The efficiency of drain water heat recovery units shall be 54 percent in accordance with CSA B55.1. Full credits are applicable to the following building use types: Multi-family, hotel, motel, dormitory, and schools with locker room showers. Where not all showers in the project have drain heat recovery, the credit is adjusted based on the following:

$$[\text{Section C406.2.6.1 table credits}] \times [\text{Showers with drain recovery}] / [\text{Total number of showers}]$$

C406.2.6.2 Service water heating energy recovery. Not less than 30 percent of the annual service hot water heating energy use, or not less than 70 percent of the annual service hot water heating energy use in buildings with condenser water systems subject to the requirements of Section C403.9.2.1 or qualifying for one of its exceptions, shall be provided by one or more of the following:

1. Waste heat recovery from service hot water, heat recovery chillers, building equipment, process equipment, or other approved system. Qualifying heat recovery must be above and beyond heat recovery required by other sections of this code.
2. On-site renewable energy water-heating systems where not used to meet other requirements or to obtain other energy credits.

C406.2.6.3 Heat pump service water heating. Projects shall achieve credits through compliance with Section C406.2.6.3.1.

C406.2.6.3.1 Heat pump water heater. Credit shall be achieved where service hot water system capacity is 82,000 Btu/h (24kW) or less and is served using heat pump technology with no more than 4.5 kW of resistance supplemental heating and meets one of the following:

1. The COP rating shall be a minimum COP of 3.0 reported at the design leaving heat pump water temperature with an entering air temperature of 60°F (16°C) or lower. For water-source equipment, the COP rating will be reported at the design leaving load water temperature with an entering load water temperature of 74°F (23°C) or lower.
2. The uniform energy factor (UEF) shall be a minimum of 3.40 rated based on U.S. Department of Energy requirements.

C406.2.7 Improved service hot water temperature maintenance. For buildings with gross floor area greater than 10,000 square feet, credit shall be achieved when hot water temperature maintenance is installed in accordance with Section C406.2.7.1 or C406.2.7.2.

C406.2.7.1 Self-regulated heat trace system. The credit achieved shall be from Table C406.2(1). This system shall include self-regulating electric heat cables, connection kits and electronic controls. The cable shall be installed directly on the hot water supply pipes underneath the insulation to replace standby losses.

C406.2.7.2. Point of use water heater. The credit achieved shall be from Table C406.2(1) where any fixtures requiring hot water shall be supplied from a localized electric source of hot water with no recirculation or heat trace and limited to 2 kW and 6 gallons of storage. The supply pipe length from the point of use water heater to the termination of the fixture supply pipe shall be no more than 20 feet.

C406.2.8 Service hot water distribution right sizing. To achieve this credit, where Group R-1 and R-2 occupancies are served by a central service hot water system, the distribution system serving *dwelling units, sleeping units* and guestrooms shall be sized using Appendix M of the *Uniform Plumbing Code*.

C406.2.9 High performance service hot water temperature maintenance system. Systems with multiple riser service hot water circulation systems shall use only heat pump technology for temperature maintenance. The heat pump technology shall have a minimum COP of 3.0 or UEF of 3.4. For air-source equipment, the COP rating will be reported at the design leaving heat pump water temperature with an entering dry bulb air temperature of 60°F (16°C) or lower and a relative humidity of 50 percent or lower. For water-source equipment, the COP rating will be reported at the design leaving load side water temperature with an entering source side water temperature of 74°F (23°C) or lower. The system shall comply with the requirements of Section C404.7.1.

C406.2.10 High efficiency service hot water circulation system. Multiple riser service hot water circulation systems shall use a variable volume circulation pump controlled to vary the pump speed based on system demand and shall include self-actuated thermostatic balancing valves to control the system flow at each riser.

C406.2.11 Low flow showerheads for Group R-1 and R-2 occupancies. All showerheads installed in Group R-1 and R-2 *dwelling units* or *sleeping units* shall have a maximum listed flowrate of 1.25 gallons per minute or less at 80 psi operating pressure for fixed showerheads and a maximum listed flowrate of 1.50 gallons per minute or less at 80 psi operating pressure for handheld showerheads. When a shower is served by more than one showerhead, including handheld showerheads, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.25 gallons per minute or less for fixed or 1.5 gallons per minute or less for handheld, or the shower shall be designed to allow only one shower outlet to be in operation at a time.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40625, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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WAC 51-11C-40627 Section C406.2—Other measures.

C406.2.14 Enhanced commercial kitchen equipment. For buildings or areas designated as Group A-2, or facilities whose primary business type involves the use of a commercial kitchen with at least one gas or electric fryer, all fryers, dishwashers, steam cookers and ovens shall comply with all of the following:

1. Achieve the ENERGY STAR label in accordance with the specifications current as of January 1, 2022.
2. Be installed prior to the issuance of the certificate of occupancy.
3. Have the ENERGY STAR qualified model number listed on the construction documents submitted for permitting.

Energy efficiency credits for efficient commercial kitchen equipment shall be determined based on Equation 4-19, rounded to the nearest whole number.

(Equation 4-19)

$$AEEC_K = 20 \times \frac{Area_K}{Area_B}$$

Where:

- $AEEC_K$ = Section C406.2.14 table credits, to a maximum of those allowed in Table C406.2(1) for this option.
- $Area_K$ = Floor area of full-service kitchen (ft² or m²).
- $Area_B$ = Gross floor area of building (ft² or m²).

C406.2.15 Residential kitchen equipment. For projects with Group R-1 and R-2 occupancies, energy credits shall be achieved where not less than 90 percent of dishwashers, refrigerators, and freezers comply with all of the following:

1. Achieve the ENERGY STAR Most Efficient label in accordance with the 2021 specifications.
2. Be installed prior to the issuance of the certificate of occupancy.

For Group R-1 where only some guestrooms are equipped with both refrigerators and dishwashers, the table credits shall be prorated as follows:

$$[\text{Section C406.2.15 table credits}] \times [\text{Floor area of guestrooms with kitchens}] / [\text{Total guestroom floor area}]$$

C406.2.16 Residential laundry appliances. For projects with Group R-2 occupancies, energy credits shall be achieved where not less than 90 percent of clothes washers and dryers in the project meet the following requirements:

1. Each dwelling unit contains in-unit washing washer and dryer equipment that meets the following requirements:
 - 1.1. Achieve the ENERGY STAR Most Efficient label in accordance with the 2021 specifications.
 - 1.2. Be installed prior to the issuance of the certificate of occupancy.
2. Where only some dwelling units are equipped with both washers and dryers, the table credits shall be prorated as follows:

[Section C406.2.16 table credits] x [Floor area of dwelling units with laundry] / [Total dwelling unit floor area]

C406.2.17 Heat pump clothes dryers. Not less than 90 percent of domestic clothes dryers located in Group R-1 and R-2 of the whole project are ENERGY STAR rated heat pump dryers. Credit applies only to buildings where laundry facilities are provided either within each residential dwelling or sleeping units or grouped together in central multi-family use laundry rooms, or a mix of the two.

To claim this credit, the building permit drawings shall specify the appliance type and provide documentation of ENERGY STAR compliance. At the time of inspection, all appliances shall be installed and connected to utilities.

C406.2.18 Efficient elevator equipment. Qualifying elevators in the building shall be Energy Efficient Class A in accordance with ISO 25745-2, Table 7. Only buildings three or more floors above grade shall be permitted to use this credit. Credits shall be prorated based on Equation 4-18, rounded to the nearest whole credit. Projects with a compliance ratio (CR_e in Equation 4-18) below 0.5 do not qualify for this credit.

(Equation 4-18)

$$EC_e = EC_t \times CR_e$$

Where:

- EC_e = Elevator energy credit achieved for building.
- EC_t = Section C406.2.18 table energy credit.
- $CR_e = \frac{F_A}{F_B}$
- F_A = Sum of floors served by Class A elevators.
- F_B = Sum of floors served by all building elevators and escalators.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40627, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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WAC 51-11C-40702 Section C407.2—Mandatory requirements.

C407.2 Mandatory requirements. Compliance with Section C407 also requires compliance with those sections shown in Table C407.2.

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 in the baseline in accordance with ANSI/ASHRAE/IESNA 90.1 Appendix G and in the proposed model in accordance with the requirements of the Washington State Energy Code.

Table C407.2
Mandatory Compliance Measures for
Total Building Performance Method

| Section ^a | Title | Comments |
|-----------------------|--|----------------------|
| Envelope | | |
| C401 | Thermal envelope certificate | |
| C402.2.7 | Airspaces | |
| C402.5 | Air leakage | |
| Mechanical | | |
| C403.1.2 | Calculation of heating and cooling loads | |
| C403.1.3 | Data centers | |
| ((C403.1.4 | Use of electric resistance and fossil fuel-fired HVAC heating equipment)) | |
| C403.2 | System design | |
| C403.3.1 | Equipment and system sizing | |
| C403.3.2 | HVAC equipment performance requirements | |
| C403.3.3 | Hot gas bypass limitation | |
| C403.3.4.4 | Boiler turndown | |
| ((C403.3.6 | Ventilation for Group R-occupancy)) | |
| C403.4.1 | Thermostatic controls | |
| C403.4.2 | Off-hour controls | |
| C403.4.7 | Combustion heating equipment controls | |
| C403.4.8 | Group R-1 hotel/motel guestrooms | See Section C403.7.4 |
| C403.4.9 | Group R-2 and R-3 dwelling units | |
| C403.4.10 | Group R-2 sleeping units | |
| C403.4.11 | Direct digital control systems | |

| Section ^a | Title | Comments |
|--------------------------------|---|--------------------------------------|
| C403.5.5 | Economizer fault detection and diagnostics (FDD) | |
| C403.7 | Ventilation and exhaust systems | Except for C403.7.6.2 |
| C403.8 | Fan and fan controls | |
| C403.9.1.1 | Variable flow controls | For cooling tower fans ≥ 7.5 hp |
| C403.9.1.2 | Limitation on centrifugal fan cooling towers | For open cooling towers |
| C403.10 | Construction of HVAC elements | |
| C403.11 | Mechanical systems located outside of the building thermal envelope | |
| C403.14 | Commissioning | |
| Service Water Heating | | |
| C404 | Service water heating | Except for C404.2.1 |
| Lighting and Electrical | | |
| C405 | Electrical power and lighting systems | |
| Other Requirements | | |
| C407 | Total building performance | |
| C408 | System commissioning | |
| C409 | Energy metering | |
| C410 | Refrigeration requirements | |
| C411 ^b | Renewable energy | |
| C412 | Compressed air systems | |

^a Reference to a code section includes all the relative subsections except as indicated in the table.

^b Compliance with any of these sections includes compliance with any exception to that section.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40702, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-40702, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40702, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40702, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40702, filed 2/1/13, effective 7/1/13.]

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WAC 51-11C-40703 Section C407.3—Performance-based compliance.

C407.3 Performance-based compliance. Compliance with this section requires compliance with ASHRAE Standard 90.1 Appendix G, Performance Rating Method, in accordance with Standard 90.1 Section 4.2.1 with the following modifications:

1. The mandatory requirements of the Washington State Energy Code are required to be met, instead of those of Section G1.2.1a of ANSI/ASHRAE/IESNA 90.1.

2. Compliance with Section C407 requires meeting both (~~(an emissions and)~~) a regulated site energy target and a total site energy reduction target in accordance with the following:

2.1. (~~(Carbon emissions)~~) Regulated site energy target. The (~~(carbon emissions)~~) regulated site energy target is focused on regulated load energy efficiency, thus shall be met only via regulated load savings without consideration of the contribution of on-site or off-site renewable energy or unregulated load savings. Adjustments to the PCI, to account for the contribution of renewable energy found in ANSI/ASHRAE/IESNA 90.1 Section 4.2.1.1 shall not be used. References to energy cost in Section 4.2.1.1 and Appendix G shall be replaced by (~~(carbon emissions calculated by multiplying site energy consumption by the carbon emission factor from Table C407.3(1))~~) site energy use. Heating or cooling energy provided by a district energy system may utilize coefficient of performance (COP) ratios acceptable to the code official for the respective district energy sources. The building performance factors in Table 4.2.1.1 of ANSI/ASHRAE/IESNA 90.1 shall be replaced with those in Table C407.3(2).

2.2. Total site energy target. The total site energy performance target shall be met including the contributions of on-site or off-site renewable energy as described in Section C411.2 as well as the contributions of improvements in unregulated loads as allowed by Section C407.3.4. The annual on-site and off-site renewable energy production (as adjusted by the factors in Table C411.2.1) shall be subtracted from the proposed building annual site energy use. Compliance with the site energy performance target requires that the proposed building site energy use/baseline building site energy use is less than or equal to the site energy performance target from Table C407.3(3).

3. Documentation requirements in Section G1.3.2.d shall be replaced by a list showing compliance with the mandatory provisions of Table C407.2.

4. Forms demonstrating compliance with Appendix G developed by the U.S. Department of Energy shall be completed and submitted to the *code official*. The forms are available at energycodes.gov/ashrae-standard-901-performance-based-compliance-form.

5. References to yet-to-be-designed future building components in the Proposed Building Performance column of Table G3.1 shall be modified to reference the corresponding sections of the Washington State Energy Code in lieu of the requirements of ANSI/ASHRAE/IESNA 90.1 in the following sections of the table:

- 5.1. No. 1, Design Model, subclause c.
- 5.2. No. 6, Lighting, subclause c.
- 5.3. No. 11, Service Water Heating System, subclause c.
- 5.4. No. 12, Receptacle and Other Loads, subclause b.

6. HVAC systems, subclauses c and d of Table G3.1, shall meet the following requirements:

6.1. For yet-to-be-designed systems in office, retail, library, education, and multifamily buildings and occupancies subject to the TSPR requirements of Section C403.1.1, the system type and efficiency parameters in the proposed model shall meet but not exceed those shown in Table D602.11 Standard Reference Design HVAC Systems.

6.2. For all other buildings and occupancies, the system type shall be the same as the system modeled in the baseline design and shall comply with but not exceed the requirements of Section C403 in lieu of ANSI/ASHRAE/IESNA 90.1.

6.3. For HVAC systems serving future tenant spaces, where the current building permit applies to only a portion of an HVAC system, and future components will receive HVAC services from systems included in the current building permit, those future components shall be modeled as the type required to complete the HVAC system portions under the current permit and shall meet but not exceed the requirements found in Section C403.

7. The requirements for proposed and baseline building lighting system shall be modified in accordance with Addendum af to ANSI/ASHRAE/IESNA 90.1.

8. Energy modeler qualifications. The energy analyst in responsible charge of the Section C407 submittal shall meet at least one of the following:

8.1. ASHRAE Building Energy Modeling Professional (BEMP) certification.

8.2. Association of Energy Engineer's Building Energy Simulation Analyst (BESA) certification.

8.3. Successful completion of at least five projects modeled following any version of ANSI/ASHRAE/IESNA 90.1 Appendix G within the last three years that were reviewed and approved by a *code official* or rating authority.

C407.3.1 Limits on nonmandatory measures. The Proposed Total UA of the proposed building shall be no more than 20 percent higher than the Allowed Total UA as defined in Section C402.1.5.

C407.3.2 On-site and off-site renewable energy accounting for use with Appendix G. Qualifying on-site and off-site renewable energy delivered or credited to the building project to comply with Section C407.3 item 2.2 shall meet the requirements of Section C411.2.

C407.3.3 Low-carbon district energy use with Appendix G. Qualifying *low-carbon district heating and cooling or heating only systems* and *low-carbon district energy exchange systems* shall meet the requirements of Section C407.3.3.1 or C407.3.3.2, as applicable.

C407.3.3.1 Utilization of low-carbon district heating and cooling or heating only systems. Applicable if heating and cooling or heating only is provided to the *proposed building* from a *low-carbon district heating and cooling or heating only system* that is fully operational prior to the final inspection. Proposed model shall account for all on-site HVAC and service hot water related equipment, such as circulation pump energy and heat-exchanger efficiency.

1. The following modifications shall be applied to Appendix G of ANSI/ASHRAE/IESNA 90.1 in addition to what is described in Section C407.3:

1.1. For low-carbon district heating and cooling systems, strike the text of Sections G3.1.1.1, G3.1.1.2, G3.1.1.3.1, G3.1.1.3.3, and

G3.1.1.3.4. Baseline system shall be selected based on unmodified versions of Tables G3.1.1-3 and G3.1.1-4, ~~((with carbon emission factors from Table C407.3(1))~~ comparing energy use to determine compliance.

1.2. For low-carbon district heating only systems, strike the text of Sections G3.1.1.1, G3.1.1.3.1, and G3.1.1.3.4. Baseline system shall be selected based on unmodified versions of Tables G3.1.1-3 and G3.1.1-4, with carbon emission factors from Table C407.3(1).

2. Any heating or cooling energy provided by the *low-carbon district heating and cooling or heating only system* shall utilize ~~((footnote a of Table C407.3(1) for the district system carbon emission factor in the proposed model))~~ a calculated energy use reduction factor acceptable to the code official to account for ~~((carbon emissions))~~ energy use reduction from those end uses.

3. ~~((Carbon emission))~~ Energy "credit" for any waste/recoverable heat exported to the *low-carbon district heating and cooling or heating only systems* shall be accounted for in the proposed design by multiplying the quantity of heat exported by the ~~((Carbon Emissions Factor established in footnote a of Table C407.3(1) multiplied by the))~~ appropriate seasonal utilization factor in Items 3.1 and 3.2 below. This ~~((carbon emissions))~~ energy "credit" is subtracted from the total proposed design ~~((carbon emissions))~~ energy use calculated in accordance with ASHRAE 90.1 Section 4.2.1.1.

3.1. Fifty percent of the waste heat exported to the *low-carbon district heating and cooling or heating only systems* during the months of October through December and January through March.

3.2. Twenty-five percent of the waste heat exported to the *low-carbon district heating and cooling or heating only systems* during the months of April through September.

EXCEPTION: Waste heat exported from the building to the *low-carbon district heating and cooling or heating only system* shall not be subtracted from the proposed design ~~((carbon emissions))~~ energy use if they are already accounted for in the calculation of ~~((emissions))~~ energy use from the district heating or cooling plant as part of the district energy efficiency factor.

Documentation for the low-carbon district system that is operational prior to the final inspection shall be provided to demonstrate the following:

1. Distribution losses must be accounted for and may not exceed 10 percent of the annual load delivered to buildings served by the system.

2. Twenty-five percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat or renewable energy resources and no more than 25 percent of the annual heat input to the system comes from fossil fuel or electric-resistance sources, or not more than 10 percent of the system annual heat input to the system comes from fossil fuel or electric-resistance sources.

C407.3.3.2 Utilization of low-carbon district energy exchange systems.

Applicable if heating or cooling is provided to the *proposed building* from a *low-carbon district energy exchange system* that is fully operational prior to the final inspection. Proposed model shall account for all on-site HVAC and service hot water related equipment, such as circulation pump energy and heat-exchanger efficiency.

1. The following modifications shall be applied to Appendix G of ANSI/ASHRAE/IESNA 90.1 in addition to what is described in Section C407.3:

1.1. Strike the text of Sections G3.1.1.1, G3.1.1.2, G3.1.1.3, G3.1.1.3.1, G3.1.1.3.2, G3.1.1.3.3, and G3.1.1.3.4. Baseline system

shall be selected based on unmodified versions of Tables G3.1.1-3 and G3.1.1-4 (~~(, with carbon emission factors from Table C407.3(1))~~).

2. Any heating or cooling energy provided by a low-carbon district energy exchange system shall utilize ~~((footnote a of Table C407.3(1) for the district system carbon emission factor))~~ a calculated energy use reduction factor acceptable to the code official to account for the reduction in the proposed model.

3. ~~((Carbon emission))~~ Energy use "credit" for any waste/recoverable heating exported to the *low-carbon district energy exchange system* shall be accounted for in the proposed design by multiplying the quantity of heat exported by the ~~((Carbon Emissions Factor established in footnote a of Table C407.3(1) multiplied by the))~~ appropriate seasonal utilization factor in Items 3.1 and 3.2 below. This ~~((carbon emissions))~~ energy use "credit" is subtracted from the total proposed design ~~((carbon emissions))~~ energy use calculated in accordance with ASHRAE 90.1 Section 4.2.1.1.

3.1. Fifty percent of the waste heat exported to the *low-carbon district energy exchange system* during the months of October through December and January through March.

3.2. Twenty-five percent of the waste heat exported to the *low-carbon district energy exchange system* during the months of April through September.

EXCEPTION: Waste heat exported from the building to the *low-carbon district heating and cooling or heating only system* shall not be subtracted from the proposed design ~~((carbon emissions))~~ energy use if they are already accounted for in the calculation of ~~((emissions))~~ energy use from the district heating or cooling plant as a part of the district energy efficiency factor.

Documentation for the low-carbon district system that is operational prior to the final inspection shall be provided to demonstrate that the definition of *low-carbon district energy exchange system* is satisfied.

C407.3.4 Credit for improvements in unregulated loads when using Appendix G. When calculating savings for site energy targets in accordance with Section C407.3 item 2.2, but not when calculating savings for emissions targets in accordance with Section C407.3 item 2.1, differences in the simulation of unregulated loads and equipment modeled in the baseline building design from those in the *proposed design* shall be approved by the *code official* based on documentation that the equipment installed in the *proposed design* represents a significant verifiable departure from documented current conventional practice. All unregulated equipment for which savings is claimed must be installed by the time of final inspection. The burden of this documentation is to demonstrate that accepted conventional practice would result in baseline building equipment different from that installed in the *proposed design*. Occupancy and occupancy schedules shall not be changed.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40703, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40703, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40703, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40703, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-407031 Tables for Section C407.3.

**Table C407.3(1)
((Carbon Emissions Factors)) Re-
served**

| ((Type | CO₂e (lb/unit) | Unit |
|--------------------------|--------------------------------------|-----------------|
| Electricity | 0.44 | kWh |
| Natural gas | 11.7 | Therm |
| Oil | 19.2 | Gallon |
| Propane | 10.5 | Gallon |
| Other ^a | 195.00 | mmBtu |
| On-site renewable energy | 0.00 | |

^a District energy systems may use alternative emissions factors supported by calculations approved by the *code official*.)

**Table C407.3(2)
Building Performance Factors (BPF)
to be used for Compliance with Sec-
tion C407.3**

| Building Area Type | Building Performance Factor |
|---------------------------|------------------------------------|
| Multifamily | ((0.55)) <u>0.51</u> |
| Health care/hospital | ((0.71)) <u>0.70</u> |
| Hotel/motel | ((0.53)) <u>0.51</u> |
| Office | ((0.45)) <u>0.44</u> |
| Restaurant | ((0.35)) <u>0.33</u> |
| Retail | 0.41 |
| School | ((0.36)) <u>0.35</u> |
| Warehouse | ((0.19)) <u>0.18</u> |
| All others | ((0.44)) <u>0.43</u> |

**Table C407.3(3)
Site Energy Performance Targets to
be used for Compliance with Section
C407.3**

| Building Area Type | Site Energy Performance Targets |
|---------------------------|--|
| Multifamily | 0.59 |
| Health care/hospital | 0.72 |
| Hotel/motel | 0.62 |
| Office | 0.58 |
| Restaurant | 0.59 |
| Retail | 0.46 |
| School | 0.52 |
| Warehouse | 0.29 |
| All others | 0.55 |

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-407031, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23, and 9/25/23 [11/26/19], effective 3/15/24 [7/1/20])

WAC 51-11C-41100 Section C411—Renewable energy.

C411.1 On-site renewable energy. Each new building, or addition larger than 10,000 square feet of gross *conditioned floor area*, shall include a renewable energy generation system consisting of not less than 0.5 W/ft² or 1.7 Btu/ft² multiplied by the sum of the gross *conditioned floor area*.

EXCEPTIONS:

1. Any building where more than 50 percent of the roof area is shaded from direct beam sunlight by natural objects or by structures that are not part of the building for more than 2500 annual hours between 8:00 a.m. and 4:00 p.m.
2. Any building where more than 80 percent of the roof area is covered by any combination of equipment other than for on-site renewable energy systems, planters, vegetated space, skylights or occupied roof deck.
3. Buildings which can document they do not have adequate roof area to install the required on-site solar and that comply with Section C411.1.1 may install a lesser amount of on-site renewables but not zero.

C411.1.1 Additional efficiency credits. Buildings which qualify for one of the exceptions in Section C411.1 to omit installation of on-site renewable energy must achieve an additional 18 efficiency package credits from Table C406.2(1). The additional 18 credits can be reduced based on a prorated fraction of renewable capacity that is installed on-site.

On-site renewable energy installations of lower than required capacity can be counted proportionally toward achievement of required or additional efficiency credits in Section C411.1.1 based on the capacity of renewable energy installed compared to the requirements of Section C411.1.

C411.2 On-site and off-site renewable energy accounting. Qualifying on-site and off-site renewable energy delivered or credited to the building project to comply with this code shall meet the requirements of this section. Renewable energy certificates for an on-site or off-site renewable energy system shall be retired on behalf of the building owner for a period of not less than 15 years and tracked in accordance with Section C411.2.3 and submitted to the code official as part of the permit application.

C411.2.1 Qualifying types of off-site renewable energy systems. The following are considered qualifying off-site renewable energy systems:

1. Self-generation (an off-site renewable energy system owned by the building project owner) systems complying with Section C411.2.2.
2. Community renewable energy facility systems complying with Section C411.2.2.
3. Purchase contracts complying with Section C411.2.3.
4. Each source of renewable energy delivered to or credited to the building project shall be connected to the Western Interconnection and energy or capacity multiplied by the factors in Table C411.2.1.

Table C411.2.1

Multipliers for Renewable Energy Procurement Methods

| Location | Renewable Energy Source | Renewable Energy Factor | | |
|----------|---|----------------------------|------------------------|----------------------------------|
| | | In the state of Washington | Western Interconnected | In the states of Oregon or Idaho |
| On-site | On-site renewable energy system | 1 | NA | NA |
| Off-site | Directly owned off-site renewable energy system that begins operation after submission of the initial permit application | 0.95 | 0.75 | 0.85 |
| Off-site | Community renewable energy facility that begins operation after submission of the initial permit application | 0.95 | 0.75 | 0.85 |
| Off-site | Directly owned off-site renewable energy system that begins operation before submission of the initial permit application | 0.75 | 0.55 | 0.65 |
| Off-site | Community renewable energy facility that begins operation before submission of the initial permit application | 0.75 | 0.55 | 0.65 |
| Off-site | Renewable Power Purchase Agreement (PPA) | 0.75 | 0.55 | 0.65 |

C411.2.2 Documentation requirements for off-site renewable energy systems. Off-site renewable energy delivered or credited to the building project to comply with Section C407.3 item 2.2 shall be subject to a legally binding contract to procure qualifying off-site renewable energy. Qualifying off-site renewable energy shall meet the following requirements:

1. Documentation of off-site renewable energy procurement shall be submitted to the *code official*.

2. The purchase contract shall have a duration of not less than 15 years. The contract shall be structured to survive a partial or full transfer of ownership of the building property.

3. Records on renewable power purchased by the building owner from the off-site renewable energy generator that specifically assign the RECs to the building owner shall be retained or retired by the building owner on behalf of the entity demonstrating financial or operational control over the building seeking compliance to this standard and made available for inspection by the *code official* upon request.

4. Where multiple buildings in a building project are allocated energy procured by a contract subject to this section, the owner shall allocate for not less than 15 years the energy procured by the contract to the buildings in the building project. A plan on operation shall be developed which shall indicate how renewable energy produced from on-site or off-site systems that is not allocated before issuance of the certificate of occupancy will be allocated to new or existing buildings included in the building project.

C411.2.3 Renewable energy certificate (REC) tracking. For multitenant buildings where RECs are transferred to tenants, the plan for operation shall include procedures for tracking the quantity and vintage of RECs that are required to be retained and retired. The plan shall include provisions to transfer the RECs to building tenants, or to retire RECs on their behalf, in proportion to the gross conditioned and semi-heated floor area leased or rented. The plan shall include provisions to use a REC tracking system that meets the requirements of Sec-

tion V.B of the Green-e Framework for Renewable Energy Certification. The plan shall describe how the building owner will procure alternative qualifying renewable energy in the case that the renewable energy producer ceases.

C411.3 Solar readiness. A solar zone shall be provided on buildings that are 20 stories or less in height above grade plan. The solar zone shall be located on the roof of the building or on another structure elsewhere on the site. The solar zone shall be in accordance with this section and the *International Fire Code*.

EXCEPTION:

A solar zone is not required under the following conditions:

1. Where the solar exposure of the building's roof area is less than 75 percent of that of an unshaded area, as defined in Section C411.5, in the same location, as measured by one of the following:
 - 1.1. Incident solar radiation expressed in kWh/ft²-yr using typical meteorological year (TMY) data.
 - 1.2. Annual sunlight exposure expressed in cumulative hours per year using TMY data.
 - 1.3. Shadow studies indicating that the roof area is more than 25 percent in shadow, on September 21st at 10 a.m., 11 a.m., 12 p.m., 1 p.m., and 2 p.m. solar time.
2. Buildings, building additions, changes in space conditioning or occupancy where the total floor area is equal to or less than 500 square feet.

C411.3.1 Minimum area. The minimum area of the solar zone shall be determined by one of the following methods, whichever results in the smaller area:

1. Forty percent of roof area. The roof area shall be calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, mechanical equipment, mechanical equipment service clearances, and planted areas.
2. Twenty percent of electrical service size. The electrical service size is the rated capacity of the total of all electrical services to the building, and the required solar zone size shall be based upon 10 peak watts of photovoltaic per square foot.

EXCEPTION:

Subject to the approval of the code official, buildings with extensive rooftop equipment that would make full compliance with this section impractical shall be permitted to reduce the size of the solar zone required by Section C411.3 to the maximum practicable area.

C411.3.2 Contiguous area. The solar zone is permitted to be comprised of separated subzones. Each subzone shall be at least 5 feet wide in the narrowest dimension.

C411.3.3 Obstructions. The solar zone shall be free of pipes, vents, ducts, HVAC equipment, skylights and other obstructions, except those serving photovoltaic systems within the solar zone. The solar zone is permitted to be located above any such obstructions, provided that the racking for support of the future system is installed at the time of construction, the elevated solar zone does not shade other portions of the solar zone, and its height is permitted by the *International Building Code*. Photovoltaic or solar water heating systems are permitted to be installed within the solar zone.

C411.3.4 Shading. The solar zone shall be set back from any existing or new object on the building or site that is located south, east or west of the solar zone a distance at least two times the object's height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees, and roof plantings. No portion of the solar zone shall be located on a roof slope greater than 2:12 that faces within 45 degrees of true north.

C411.3.5 Access. Areas contiguous to the solar zone shall provide access pathways and provisions for emergency smoke ventilation as required by the *International Fire Code*.

C411.3.6 Structural integrity. The as-designed dead load and live load for the solar zone shall be clearly marked on the record drawings and shall accommodate future photovoltaic system arrays at an assumed dead load of 4 pounds per square foot in addition to other required live and dead loads. A location for future inverters shall be designated either within or adjacent to the solar zone, with a minimum area of 2 square feet for each 1000 square feet of solar zone area, and shall accommodate an assumed dead load of 175 pounds per square foot. Where photovoltaic systems are installed in the solar zone, structural analysis shall be based upon calculated loads, not upon these assumed loads.

C411.3.7 Photovoltaic interconnection. Interconnection of the future photovoltaic system shall be provided for at the main service panel, either ahead of the service disconnecting means or at the end of the bus opposite the service disconnecting means, in one of the following forms:

1. A space for the mounting of a future overcurrent device, sized to accommodate the largest standard rated overcurrent device that is less than 20 percent of the bus rating.

2. Lugs sized to accommodate conductors with an ampacity of at least 20 percent of the bus rating, to enable the mounting of an external overcurrent device for interconnection.

The electrical construction documents shall indicate all of the following:

1. Solar zone boundaries and access pathways.

2. Location for future inverters and metering equipment.

3. Route for future wiring between the photovoltaic panels and the inverter, and between the inverter and the main service panel.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021 § 51-11C-41100, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-41100, filed 11/26/19, effective 7/1/20.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [20-21-080], filed 7/1/22, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11C-50000 Chapter 5 [CE]—Existing buildings.

C501 General.

C501.1 Scope. The provisions of this chapter shall control the *alteration, repair, addition* and change of occupancy of existing buildings and structures.

C501.1.1 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 adop-

tion of this code. Unaltered portions of existing buildings used for residential purposes shall not be required to comply with this code.

C501.2 Compliance. *Additions, alterations, repairs, changes in space conditioning and changes of occupancy to, or relocation of, existing buildings and structures shall comply with Section C502, C503, C504, or C505 of this code, and with all applicable provisions in the International Building Code, International Existing Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, Uniform Plumbing Code, and NFPA 70.*

C501.2.1 U-factor requirements for additions and alterations. For existing building projects where an *addition or building envelope alteration* area is combined with existing-to-remain building areas to demonstrate compliance with this code as a whole building, the *U*-factors applied to existing-to-remain envelope assemblies shall be in accordance with record documents.

EXCEPTION: If accurate record documents are not available, *U*-factors for the existing envelope assemblies may be in accordance with the edition of the Washington State Energy Code that was in effect at the time the building was permitted, or as approved by the *code official*.

C501.2.2 Calculations of mechanical heating and cooling loads for alterations. For the installation of new or replacement mechanical equipment that serves existing building areas, design loads associated with heating, cooling and ventilation of the existing building areas served shall be determined in accordance with Section C403.1.2.

R-values and *U*-factors used to determine existing thermal envelope performance for the purpose of calculating design loads shall be in accordance with record documents or existing conditions.

EXCEPTION: If accurate record documents are not available, *R*-values and *U*-factors used to determine existing building thermal envelope performance may be in accordance with the edition of the Washington State Energy Code that was in effect at the time the building was permitted, or as *approved* by the *code official*.

C501.3 Maintenance. Buildings and structures, and parts thereof, shall be maintained in a safe and sanitary condition. Devices and systems which are required by this code shall be maintained in conformance with the code edition under which installed. The owner or the owner's authorized agent shall be responsible for the maintenance of buildings and structures. The requirements of this chapter shall not provide the basis for removal or abrogation of energy conservation, fire protection and safety systems and devices in existing structures.

C501.4 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

C501.5 Historic buildings. Provisions of this code relating to the construction, *repair, alteration, restoration* and movement of structures, and *change of occupancy* shall not be mandatory for historic buildings provided that a report has been submitted to the code official and signed by a registered design professional, or a representative of the state historic preservation office or the historic preservation authority having jurisdiction, demonstrating that compliance with that provision would threaten, degrade or destroy the historic form, fabric or function of the building.

C501.6 Commissioning. Existing building systems shall be commissioned in accordance with Section C408. For the purposes of meeting the commissioning thresholds in Section C408.1, only the new and altered system capacities are considered when determining whether the project is exempt from some portion of the commissioning process.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-50000, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-50000, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-50000, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-50000, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-50000, filed 2/1/13, effective 7/1/13.]

Reviser's note: The brackets and enclosed material following 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.

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [20-21-080], filed 7/1/22, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11C-50300 Section C503—Alterations.

C503.1 General. Alterations to any building or structure shall comply with the requirements of Section C503 and the code for new construction. Alterations 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 portions of the existing building or building system to comply with this code. Alterations shall be such that the existing building or structure is no less conforming with the provisions of this code than the existing building or structure was prior to the alteration. The additional energy efficiency credit requirements in Section C406.1 and the renewable energy requirements in Section C411 do not apply to alterations.

EXCEPTION: The following alterations need not comply with the requirements for new construction provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Surface applied window film installed on existing single pane fenestration assemblies to reduce solar heat gain provided the code does not require the glazing fenestration to be replaced.
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. *Roof recover.*
6. *Air barriers* shall not be required for *roof recover* and roof replacement where the *alterations* or renovations to the building do not include *alterations, renovations or repairs* to the remainder of the building envelope.
7. 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.

C503.2 Reserved.

C503.3 Building envelope. New building envelope assemblies that are part of the alteration shall comply with Sections C402.1 through C402.5 and Sections C503.3.1 through C503.3.3.

EXCEPTION: Air leakage testing is not required for alterations and repairs, unless the project includes a change in space conditioning according to Section C503.2 or a change of occupancy or use according to Section C505.1.

C503.3.1 Roof replacement. *Roof replacements* shall comply with Table C402.1.3 or C402.1.4 where the existing roof assembly is part of the *building thermal envelope* and contains no insulation or the insulation is located entirely above the roof deck. In no case shall the *R-value* of the roof insulation be reduced or the *U-factor* of the roof assembly be increased as part of the *roof replacement*.

C503.3.2 Vertical fenestration. Alterations that include the addition of new vertical fenestration area shall comply with the following:

1. Where the addition of new *vertical fenestration* area results in a total building vertical fenestration area less than or equal to the maximum allowed by Section C402.4.1, the alteration shall comply with Section C402.4.

2. Where the addition of new *vertical fenestration* area result in a total building *vertical fenestration* area greater than the maximum allowed by Section C402.4.1 (regardless of the ratio prior to the addition), the alteration shall comply with one of the following:

2.1. Vertical fenestration alternate in accordance with Section C402.1.3 for the new vertical fenestration added.

2.2. Vertical fenestration alternate in accordance with Section C402.4.1.1 for the area adjacent to the new vertical fenestration added.

2.3. Existing building and alteration areas are combined to demonstrate compliance with the component performance alternate in accordance with Section C402.1.5 for the whole building. *U-factors* applied to existing envelope assemblies in the UA calculation shall comply with Section C501.2.1. The Proposed Total UA is allowed to be up to 110 percent of the Allowed Total UA.

2.4. Total building performance in accordance with Section C407 for the whole building. The total annual carbon emissions from energy consumption of the proposed design is allowed to be up to 110 percent of the annual carbon emissions from energy consumption allowed in accordance with Section C407.3.

EXCEPTION: Where *approved* by the *code official*, additional *fenestration* is permitted where sufficient envelope upgrades beyond those required by other sections of this code are included in the project so that the addition of new *vertical fenestration* does not cause an increase in the overall energy use of the building.

C503.3.2.1 Replacement fenestration products. 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 C402.4.

EXCEPTION: An area-weighted average of the *U-factor* of replacement fenestration products being installed in the building for each fenestration product category listed in Table C402.4 shall be permitted to satisfy the *U-factor* requirements for each fenestration product category listed in Table C402.4. Individual fenestration products from different product categories listed in Table C402.4 shall not be combined in calculating the area-weighted average *U-factor*.

C503.3.3 Skylights. Alterations that include the addition of new skylight area shall comply with the following:

1. Where the addition of new *skylight* area results in a total building skylight area less than or equal to the maximum allowed by Section C402.4.1, the alteration shall comply with Section C402.4.

2. Where the addition of new *skylight* area results in a total building skylight area greater than the maximum allowed by Section C402.4.1 (regardless of the ratio prior to the addition), the alteration shall comply with one of the following:

2.1. Existing building and alteration area are combined to demonstrate compliance with the component performance alternative with tar-

get area adjustment in accordance with Section C402.1.5 for the whole building. *U*-factors applied to existing envelope assemblies in the UA calculation shall comply with Section C501.2.1. The Proposed Total UA is allowed to be up to 110 percent of the Allowed Total UA.

2.2. Total building performance in accordance with Section C407 for the whole building. The annual carbon emissions from energy consumption of the proposed design is allowed to be up to 110 percent of the annual carbon emissions from energy consumption allowed in accordance with Section C407.3.

EXCEPTION: Additional envelope upgrades are included in the project so the addition of new skylights does not cause a reduction in overall building energy efficiency, as approved by the code official.

C503.4 Building mechanical systems. Components of existing mechanical systems that are altered or replaced shall comply with Section C403 or Section C407, unless specifically exempted in this section, and Sections C408.2, C409.5, C501.2.2, C501.6, and C503.4.2 through C503.4.5. Additions or alterations shall not be made to an existing mechanical system that will cause the existing system to become out of compliance.

EXCEPTIONS:

- Existing mechanical systems are not required to be modified to comply with Section C403.3.5 where mechanical cooling capacity is not added to a system that did not have cooling capacity prior to the alteration.
- Compliance with Section C403.1.4 is not required where the alteration does not include replacement of a heating appliance.
- Alternate mechanical system designs that are not in full compliance with this code may be approved when the code official determines that existing building constraints including, but not limited to, available mechanical space, limitations of the existing structure, or proximity to adjacent air intakes or exhausts makes full compliance impractical. Alternate designs shall include additional energy saving strategies not prescriptively required by this code for the scope of the project including, but not limited to, demand control ventilation, energy recovery, or increased mechanical cooling or heating equipment efficiency above that required by Tables C403.3.2(1) through C403.3.2(16).
- Only those components of existing HVAC systems that are altered or replaced shall be required to comply with Section C403.8.1. Section C403.8.1 does not require the removal and replacement of existing system ductwork. Additional fan power allowances are available when determining the fan power budget (Fan kW_{budget}) as specified in Table C503.4. These values can be added to the fan power allowance values in Tables C403.8.1.1(1) and C403.8.1.1(2) when calculating a new Fan kW_{budget} for the fan system being altered. The additional fan power allowance is not applicable to alterations that add or change passive components which do not increase the fan system static pressure.

**Table C503.4
Additional Fan Power Allowances (W/CFM)**

| Airflow | Multi-Zone VAV Systems ^a ≤5,000 cfm | Multi-Zone VAV Systems ^a >5,000 and ≤10,000 cfm | Multi-Zone VAV Systems ^a >10,000 cfm | All Other Fan Systems ≤5,000 cfm | All Other Fan Systems >5,000 and ≤10,000 cfm | All Other Fan Systems >10,000 cfm |
|---|--|--|---|----------------------------------|--|-----------------------------------|
| Supply Fan System additional allowance | 0.135 | 0.114 | 0.105 | 0.139 | 0.120 | 0.107 |
| Supply Fan System additional allowance in unit with adapter curb | 0.033 | 0.033 | 0.043 | 0.000 | 0.000 | 0.000 |
| Exhaust/ Relief/ Return/ Transfer Fan System additional allowance | 0.070 | 0.061 | 0.054 | 0.070 | 0.062 | 0.055 |
| Exhaust/ Relief/ Return/ Transfer Fan System additional allowance with adapter curb | 0.016 | 0.017 | 0.220 | 0.000 | 0.000 | 0.000 |

^a See definition of FAN SYSTEM, MULTI-ZONE VARIABLE AIR VOLUME (VAV).

C503.4.1 New building mechanical systems. All new mechanical systems and equipment in existing buildings shall comply with Sections C403, C408.2, C409.5, and C501.6.

C503.4.2 Addition of cooling capacity. Where mechanical cooling is added to a space that was not previously cooled, the mechanical system shall comply with either Section C403.3.5 or C403.5.

EXCEPTIONS:

1. Qualifying small equipment: Economizers are not required for cooling units and split systems serving one zone with a total cooling capacity rated in accordance with Section C403.3.2 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 C403.3.2 (1), (2), (4), (8), (9), and (14), 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 the building total air economizer capacity, whichever is greater.

Notes and exclusions for Exception 1:

- 1.1. The portion of the equipment serving Group R occupancies is not included in determining the total capacity of all units without economizers in a building.
- 1.2. Redundant units are not counted in the capacity limitations.
- 1.3. This exception shall not be used for the initial tenant improvement of a shell-and-core building or space, or for Total Building Performance in accordance with Section C407.
- 1.4. This exception shall not be used for unitary cooling equipment installed outdoors or in a mechanical room adjacent to the outdoors.
- 2. Chilled water terminal units connected to systems with chilled water generation equipment with IPLV values more than 25 percent higher than minimum part load equipment efficiencies listed in Table C403.3.2 (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 systems without economizers shall not exceed 480,000 Btu/h per building, or 20 percent of the building total air economizer capacity, whichever is greater.

Notes and exclusions for Exception 2:

- 2.1. The portion of the equipment serving Group R occupancy is not included in determining the total capacity of all units without economizers in a building.
- 2.2. This exception shall not be used for the initial tenant improvement of a shell-and-core building or space, or for total building performance in accordance with Section C407.

C503.4.3 Alterations or replacement of existing cooling systems. Alterations to, or replacement of, existing mechanical cooling systems shall not decrease the building total economizer capacity unless the system complies with either Section C403.3.5 or C403.5. System alterations or replacement shall comply with Table C503.4.3 when either the individual cooling unit capacity or the building total capacity of all cooling equipment without economizer does not comply with the exceptions in Section C403.5. Equipment replacements that include space heating shall also comply with Section C503.4.3.

**Table C503.4.3
Economizer Compliance Options for Mechanical Alterations**

| | Option A | Option B (alternate to A) | Option C (alternate to A) | Option D (alternate to A) |
|---------------------------|--|---|---|--|
| Unit Type | Any alteration with new or replacement equipment | Replacement unit of the same type with the same or smaller output capacity | Replacement unit of the same type with a larger output capacity | New equipment added to existing system or replacement unit of a different type |
| 1. Packaged Units | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b |
| 2. Split Systems | Efficiency: min. ^a Economizer: C403.5 ^b | For units ≤ 60,000 Btuh, comply with two of two measures: 1. Efficiency: + 10% ^c 2. Economizer: shall not decrease existing economizer capability | For units ≤ 60,000 Btuh replacing unit installed prior to 1991 comply with at least one of two measures: 1. Efficiency: + 10% ^c 2. Economizer: 50% ^f | Efficiency: min. ^a Economizer: C403.5 ^b |
| | | For all other capacities: Efficiency: min. ^a Economizer: C403.5 ^b | For all other capacities: Efficiency: min. ^a Economizer: C403.5 ^b | |
| 3. Water Source Heat Pump | Efficiency: min. ^a Economizer: C403.5 ^b | For units ≤ 72,000 Btuh, comply with at least two of three measures: 1. Efficiency: +10% ^c 2. Flow control valve ^g 3. Economizer: 50% ^f | For units ≤ 72,000 Btuh, comply with at least three of three measures: 1. Efficiency: +10% ^c 2. Flow control valve ^g 3. Economizer: 50% ^f (except for certain pre-1991 systems ^h) | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^h) |
| | | For all other capacities: Efficiency: min. ^a Economizer: C403.5 ^b | For all other capacities: Efficiency: min. ^a Economizer: C403.5 ^b | |

| | Option A | Option B (alternate to A) | Option C (alternate to A) | Option D (alternate to A) |
|---|--|---|---|---|
| Unit Type | Any alteration with new or replacement equipment | Replacement unit of the same type with the same or smaller output capacity | Replacement unit of the same type with a larger output capacity | New equipment added to existing system or replacement unit of a different type |
| 4. Water Economizer using Air-Cooled Heat Rejection Equipment (Dry Cooler) | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: + 5% ^d Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b |
| 5. Air-Handling Unit (including fan coil units) where the system has an air-cooled chiller | Efficiency: min. ^a Economizer: C403.5 ^b | Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q) | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q) |
| 6. Air-Handling Unit (including fan coil units) and Water-cooled Process Equipment, where the system has a water-cooled chiller ¹⁰ | Efficiency: min. ^a Economizer: C403.5 ^b | Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q and certain 1991-2016 systems ^l) | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q and certain 1991-2016 systems ^l) |
| 7. Cooling Tower | Efficiency: min. ^a Economizer: C403.5 ^b | No requirements | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b |
| 8. Air-Cooled Chiller | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: + 10% ^k Economizer: shall not decrease existing economizer capacity | Efficiency: Comply with two of two measures: 1. + 10% ^{k,l} and 2. Multistage compressor(s) Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b |
| 9. Water-Cooled Chiller | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: Comply with at least one of two measures: 1. Part load IPLV + 15% ⁿ or 2. Plate frame heat exchanger ^o Economizer: shall not decrease existing economizer capacity | Efficiency: Comply with two of two measures: 1. Part load IPLV + 15% ⁿ 2. Plate-frame heat exchanger ^o Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b |
| 10. Package Terminal Air Conditioner | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: + 5% ^a Economizer: shall not decrease existing economizer capacity | Efficiency: + 5% ^a Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b |
| 11. Package Terminal Heat Pump | Efficiency: min. ^a Economizer: C403.5 ^b | Cooling efficiency: + 5% ^d Heating efficiency: + 10% ^e Shall not decrease existing economizer capacity | Cooling efficiency: + 5% ^d Heating efficiency: + 10% ^e Shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b |

- a Minimum equipment efficiency shall comply with Section C403.3.2 and the tables in Section C403.3.2.
- b All separate new equipment and replacement equipment shall have air economizer complying with Section C403.5 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 C403.5.
- c Reserved.
- d Equipment shall have a capacity-weighted average cooling system efficiency that is 5% better than the requirements in the tables in Section C403.3.2 (1.05 × values in the tables).
- e Equipment shall have a capacity-weighted average cooling system efficiency that is 10% better than the requirements in the tables in Section C403.3.2 (1.10 × values in the tables).
- f 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 configured to provide this additional outside air and be equipped with economizer control.
- g Water-source heat pump systems shall have a flow control valve to eliminate flow through the heat pumps that are not in operation and 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, the capacity-weighted average cooling system efficiency shall be 5% better than the requirements in footnote ^c for water-source heat pumps (i.e., a minimum of 15% greater than the requirements in Table C403.3.2(14)).
- h Water economizer equipment shall have a capacity-weighted average cooling system efficiency that is 10% better than the requirements in Tables C403.3.2(7), C403.3.2(10), and C403.3.2(16) (1.10 × values in Tables C403.3.2(7), C403.3.2(10), and C403.3.2(16)).

- i Air economizer is not required for systems installed with water economizer plate and frame heat exchanger complying with previous codes between 1991 and June 2016, provided that the total fan coil load does not exceed the existing or added capacity of the heat exchangers.
- j 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.
- k The air-cooled chiller shall have an IPLV efficiency that is a minimum of 10% greater than the IPLV requirements in EER in Table C403.3.2(3) (1.10 × IPLV values in EER in Table C403.3.2(3)).
- l The air-cooled chiller shall be multistage with a minimum of two compressors.
- m The water-cooled chiller shall have full load and part load IPLV efficiency that is a minimum of 5% greater than the IPLV requirements in Table C403.3.2(3).
- n The water-cooled chiller shall have an IPLV value that is a minimum of 15% lower than the IPLV requirements in Table C403.3.2(3) (1.15 × IPLV values in Table C403.3.2 (3)). Water-cooled centrifugal chillers designed for nonstandard conditions shall have an NPLV value that is at least 15% lower than the adjusted maximum NPLV rating in kW per ton defined in Section C403.3.2.3 (1.15 × NPLV).
- o 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.
- p Reserved.
- q 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.

C503.4.4 Controls for cooling equipment replacement. When space cooling equipment is replaced, controls shall comply with all requirements under Section C403.3.5 and related subsections, and Section C403.5.1 for integrated economizer control.

C503.4.5 Mechanical equipment relocation. Existing equipment currently in use may be relocated within the same floor or same tenant space if removed and reinstalled within the same permit.

C503.4.6 Addition or replacement of heating appliances. Where a mechanical heating appliance is added or replaced, the added or replaced appliance shall comply with Section C401.3, Section C403.1.4, or with an alternate compliance option in Table C503.4.6.

EXCEPTIONS:

1. Terminal unit equipment including, but not limited to, hydronic VAV boxes, electric resistance VAV boxes, electric duct heaters, water source heat pumps, fan coils, or VRF indoor units that are served by an unaltered central system.
2. Air handling equipment with hydronic coils.
3. Air handling equipment designed for 100 percent outdoor air that is not subject to the requirements in Section C403.3.5 or that qualifies for an exception to Section C403.3.5.
4. Replacement of existing oil-fired boilers.
5. Replacement of existing steam boilers with steam distribution to terminal units and the associated boiler feed equipment.
6. Where compliance with Section C403.1.4 would trigger an unplanned utility electrical service upgrade based on the NEC 220.87 method for determining existing loads.
7. (~~Like-for-like replacement of a single heating appliance is permitted where that appliance is failing, requires immediate replacement, and where no other HVAC work is planned.~~) Replacement of like-for-like heating appliances where the rated capacity of the new equipment does not exceed the rated capacity of the existing equipment.

Table C503.4.6

Compliance Options for Mechanical Heating Equipment Alterations

| | Proposed Heating Equipment Type^a | Heating Efficiency Table Reference | Alternate Compliance Options to Section C403.1.4 |
|---|---|---|--|
| 1 | Air-Cooled Unitary Heat Pumps | Table C403.3.2(2) | 1. Compliance with C403.1.4, except heat pump rated capacity in accordance with Section C403.1.4 exception 5d is permitted to be sized equal to the supplemental internal resistance heating capacity in Climate Zone 4 or 5 ^c 2. Compliance with C403.1.4, except electric resistance mixed air preheat is permissible ^c |
| 2 | Packaged terminal, single-package vertical, and room air-conditioner heat pumps | Table C403.3.2(4) | 1. Compliance with C403.1.4, except heat pump rated capacity in accordance with Section C403.1.4 Exception 5d is permitted to be sized equal to the supplemental internal resistance heating capacity in Climate Zone 4 or 5 |
| 3 | Furnaces, duct furnaces, and unit heaters | Table C403.3.2(5) | 1. Efficiency: +((+θ)) 5% ^b |
| 4 | Gas-fired hot water boilers with fewer than 80% of served coils replaced | Table C403.3.2(6) | 1. Efficiency: +((+θ)) 5% ^b |

| | Proposed Heating Equipment Type^a | Heating Efficiency Table Reference | Alternate Compliance Options to Section C403.1.4 |
|---|---|---|--|
| 5 | Variable refrigerant flow air-to-air and applied heat pumps | Table C403.3.2(9) | No alternate compliance option |
| 6 | DX-DOAS equipment | Table C403.3.2(12) and Table C403.3.2(13) | 1. DX-DOAS is provided with heat recovery if not required by C403.3.5.1. |
| 7 | Water-source heat pumps | Table C403.3.2(14) | No alternate compliance option |

^a Includes replacement of equipment with a unit that is the same type or higher efficiency and the same or lower capacity, or a replacement of one equipment type with a different equipment type.

^b Equipment shall have a capacity-weighted average heating system efficiency that is 10 percent better than that shown in the reference table (((+10)) 1.05 x values in reference table).

^c Option 1 and Option 2 can be combined.

C503.4.6.1 Hydronic system alteration supply water temperature. Hydronic heating coils and appliances subject to Section C503.4.5 or Section C503.4.6 shall comply with Section C403.3.7.2.

C503.5 Service water heating equipment. All new service water heating systems, equipment, and components of existing systems that are altered or replaced shall comply with Section C407 or Sections C404, C408.3, C409.5, and C501.6. Additions or alterations shall not be made to an existing service water heating system that will cause the existing system to become out of compliance.

EXCEPTION:

The following equipment is not required to comply with Section C401.3 or Section C404.2.1, as applicable:

1. Replacement of ((a single electric resistance or fuel-fired)) service water heating appliances with ((a unit)) equipment that is the same type and has the same or higher efficiency and the same or lower capacity, provided there are no other alterations made to the existing service water heating system size or configuration.
2. Replacement of any of the following water heater appliances:
 - 2.1. Electric water heaters with an input of 12 kW or less.
 - 2.2. Gas storage water heaters with an input of 75,000 Btu/h or less.
 - 2.3. Gas instantaneous water heaters with an input of 200,000 Btu/h or less and 2 gallons or less of storage.
3. Where it has been determined by the code official that existing building constraints including, but not limited to, available floor space or ceiling height, limitations of the existing structure, or electrical service capacity, make compliance technically infeasible.

C503.6 Pools and permanent spas. All new systems and equipment serving pools and permanent spas and components of existing systems that are altered or replaced, shall comply with Sections C404.11, C408.3, C409.5, and C501.6. Additions or alterations shall not be made to an existing system serving a pool or spa that will cause the existing system to become out of compliance.

C503.7 Electrical power and lighting systems and motors. Alterations or the addition of lighting, receptacles and motors shall comply with Sections C503.7.1 through C503.7.7. Additions or alterations shall not be made to an existing lighting or electrical system that will cause the existing system to become out of compliance.

C503.7.1 New lighting systems and controls. All new interior and exterior lighting systems within an existing building site shall be provided with lighting controls in accordance with Section C405.2 and shall comply with C408.4, C409.5, and C501.6.

C503.7.2 Luminaire additions and alterations. Alterations that add or replace 20 percent or more of the luminaires in a space enclosed by walls or ceiling-height partitions, replace 20 percent or more of parking garage luminaires, or replace 20 percent or more of the total installed wattage of exterior luminaires shall comply with Sections C405.4 and C405.5. Exterior power allowance shall be determined using the specific area allowances for the areas altered and shall not include the base site allowance. Where less than 20 percent of the fixtures in an interior space enclosed by walls or ceiling-height parti-

tions or in a parking garage are added or replaced, or less than 20 percent of the installed exterior wattage is replaced, the installed lighting wattage shall be maintained or reduced.

C503.7.3 Rewiring and recircuiting. Where new wiring is being installed to serve added fixtures and/or fixtures are being relocated to a new circuit, lighting controls shall comply with all applicable requirements in accordance with Sections C405.2.1, C405.2.3, C405.2.4, C405.2.5, C405.2.6, C405.2.7, C405.2.8, C408.4, and C501.6.

C503.7.4 New or moved lighting panel. 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, lighting controls shall also comply with, in addition to the requirements of Section C503.7.3, all remaining requirements in Sections C405.2, C408.4, and C501.6.

C503.7.5 Newly-created rooms. 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 lighting controls that comply with all applicable requirements in accordance with Sections C405.2.1, C405.2.2, C405.2.3, C405.2.4, C405.2.5, C405.2.6, C408.4 and C501.6.

C503.7.6 Motors. Motors that are altered or replaced shall comply with Section C405.8.

C503.7.7 Controlled receptacles. Where electric receptacles are added or replaced, controlled receptacles shall be provided in accordance with Section C405.10 and shall comply with Sections C408.4 and C501.6.

EXCEPTIONS:

1. Where an alteration project impacts an area smaller than 5,000 square feet, controlled receptacles are not required.
2. Where existing systems furniture or partial-height relocatable office cubical partitions are reconfigured or relocated within the same area, controlled receptacles are not required in the existing systems furniture or office cubicle partitions.
3. Where new or altered receptacles meet the exception to Section C405.10, they are not required to be controlled receptacles or be located within 12 inches of noncontrolled receptacles.

C503.8 Refrigeration systems. Components of existing refrigeration systems that are altered or replaced shall comply with Sections C408.7, C410 and C501.6. Additions or alterations shall not be made to an existing refrigeration system that will cause the existing system to become out of compliance. All new refrigerated spaces and refrigeration systems and equipment in existing buildings, including new refrigerated display cases, shall comply with Sections C408.7, C409.5, C410 and C501.6.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-50300, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-50300, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-50300, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27A and 19.27 RCW. WSR 19-02-089, § 51-11C-50300, filed 1/2/19, effective 7/1/19. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-24-070, § 51-11C-50300, filed 12/6/16, effective 5/1/17; WSR 16-13-089, § 51-11C-50300, filed 6/15/16, effective 7/16/16. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-50300, filed 1/19/16, effective 7/1/16.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [20-21-080], filed 7/1/22, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11C-80500 Appendix D—Calculation of HVAC total system performance ratio.

D101 Scope. This appendix establishes criteria for demonstrating compliance using the *HVAC total system performance ratio (HVAC TSPR)* for systems serving office (including medical offices), retail, library and education occupancies and buildings, which are subject to the requirements of Section C403.3.5 without exceptions, and *dwelling units* and common areas within multifamily buildings. Those HVAC systems shall comply with Section C403 and this appendix as required by Section C403.1.1.

D101.1 Core and Shell/Initial Build-Out, and Future System Construction Analysis.

Where the *building* permit applies to only a portion of the *HVAC system* in a *building* and the remaining components will be designed under a future *building* permit or were previously installed, the future or previously installed components shall be modeled as follows:

1. Where the HVAC zones that do not include HVAC systems in the current permit will be or are served by independent systems, then the block including those zones shall not be included in the model.
2. Where the HVAC zones that do not include complete HVAC systems in the permit are intended to receive HVAC services from systems in the permit, their proposed zonal systems shall be modeled with equipment that meets, but does not exceed, the requirements of Section C403.
3. Where the zone equipment in the permit receives HVAC services from previously installed systems that are not in the permit, the previously installed systems shall be modeled with equipment matching the certified value of what is installed or equipment that meets the requirements of Section C403.
4. Where the central plant heating and cooling equipment is completely replaced and HVAC zones with existing systems receive HVAC services from systems in the permit, their proposed zonal systems shall be modeled with equipment that meets, but does not exceed, the requirements of Section C403.

Informative Notes:

1. Examples of HVAC systems that are intended to receive HVAC services from systems in the permit include future zonal water source heat pumps that will receive loop water that is heated by a boiler or cooled by a cooling tower included in the permit, any system that will receive outdoor ventilation air from a dedicated outdoor air system included in the permit, and future zone terminal units that will be connected to a central VAV system included in the permit.
2. An initial build-out with heating coils served from a previously installed system with a high-efficiency condensing boiler would use the installed efficiency if it exceeded the current requirements. If the installed boiler had a lower efficiency than the current requirements, the current requirement would be used.
3. A partial central plant upgrade (e.g., chiller, but not boiler replacement) cannot use this method.

D201 Compliance. Compliance based on *HVAC total system performance ratio* requires that the provisions of Section C403.3 are met and the *HVAC total system performance ratio* of the *proposed design* is more than or equal to the *HVAC total system performance ratio* of the *standard reference design*. The *HVAC TSPR* is calculated according to the following formula:

HVAC TSPR = annual heating and cooling load/annual carbon emissions from energy consumption of the building HVAC systems

Where:

Annual carbon emissions from energy consumption of the building HVAC systems = sum of the annual carbon emissions in pounds for heating, cooling, fans, energy recovery, pumps, and heat rejection calculated by multiplying site energy consumption by the carbon emission factors from Table ((C407.3(1)) D201)

Annual heating and cooling load = sum of the annual heating and cooling loads met by the building HVAC system in thousands of Btus.

**Table ((C407.3(1)) (Reprinted from Chapter 4)) D201
Carbon Emissions Factors**

| Type | CO2e (lb/unit) | Unit |
|---------------------------------------|----------------|--------|
| Electricity | 0.44 | kWh |
| Natural gas | 11.70 | Therm |
| Oil | 19.2 | Gallon |
| Propane | 10.5 | Gallon |
| Other ^a | 195.00 | mmBtu |
| On-site renewable energy ^b | 0.00 | |

^a District energy systems may use alternative emissions factors supported by calculations approved by the *code official*.

^b Not applicable to TSPR calculation in Appendix D.

D300 Simulation program.

D301 General.

D302 Calculation of the HVAC TSPR for the *Standard Reference Design*.

The simulation program shall calculate the HVAC TSPR based only on the input for the *proposed design* and the requirements of this appendix. The calculation procedure shall not allow the user to directly modify the building component characteristics of the *standard reference design*.

D303 Specific approval. Performance analysis tools meeting the applicable subsections of Appendix D 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.

D400 Climatic data. The simulation program shall perform the simulation using hourly values of climatic data, such as temperature and humidity, using TMY3 data for the site as specified here: <https://buildingenergyscore.energy.gov/resources>

D500 Documentation. Documentation conforming to the provisions of this section shall be provided to the *code official*.

D501 Compliance report. Building permit submittals shall include:

1. A report produced by the simulation software that includes the following:

1.1 Address of the building.

1.2 Name of individual completing the compliance report.

1.3 Name and version of the compliance software tool.

1.4 The dimensions, floor heights and number of floors for each *block*.

1.5 By *block*, the *U*-factor, *C*-factor, or *F*-factor for each simulated opaque envelope component and the *U*-factor and SHGC for each fenestration component.

1.6 By *block* or by surface for each *block*, the fenestration area.

1.7 By *block*, a list of the HVAC equipment simulated in the proposed design including the equipment type, fuel type, equipment efficiencies and system controls.

1.8 Annual site HVAC energy use by end use for the proposed and baseline building.

1.9 Annual sum of heating and cooling loads for the baseline building.

1.10 The *HVAC total system performance ratio* for both the *standard reference design* and the *proposed design*.

2. A mapping of the actual building HVAC component characteristics and those simulated in the *proposed design* showing how individual pieces of HVAC equipment identified above have been combined into average inputs as required by Section D601.10 including:

2.1 Fans.

2.2 Hydronic pumps.

2.3 Air handlers.

2.4 Packaged cooling equipment.

2.5 Furnaces.

2.6 Heat pumps.

2.7 Boilers.

2.8 Chillers.

2.9 Cooling towers.

2.10 Electric resistance coils.

2.11 Condensing units.

2.12 Motors for fans and pumps.

2.13 Energy recovery devices.

For each piece of equipment identified above, include the following as applicable:

2.14 Equipment name or tag consistent with that found on the design documents.

2.15 Rated efficiency level.

2.16 Rated capacity.

2.17 Electrical input power for fans and pumps (before any speed or frequency control device) at design conditions and calculation of input value (W/cfm or W/gpm).

3. Floor plan of the building identifying how portions of the building are assigned to the simulated *blocks* and areas of the building that are not covered under the requirements of Section C403.1.1.

D600 Calculation procedure. Except as specified by this appendix, the *standard reference design* and *proposed design* shall be configured and analyzed using identical methods and techniques.

D601 Simulation of the proposed building design. The *proposed design* shall be configured and analyzed as specified in this section.

D601.1 Block geometry. The geometry of buildings shall be configured using one or more *blocks*. Each *block* shall define attributes including *block* dimensions, number of floors, floor to floor height and floor to ceiling height. Simulation software may allow the use of simplified shapes (such as rectangle, L shape, H shape, U shape or T shape) to represent *blocks*. Where actual building shape does not match these predefined shapes, simplifications are permitted providing the following requirements are met:

1. The conditioned floor area and volume of each block shall match the *proposed design* within 10 percent.

2. The area of each exterior envelope component from Table C402.1.4 is accounted for within 10 percent of the actual design.

3. The area of vertical fenestration and skylights is accounted for within 10 percent of the actual design.

4. The orientation of each component in 2 and 3 above is accounted for within 45 degrees of the actual design.

The creation of additional *blocks* may be necessary to meet these requirements.

EXCEPTION: Portions of the building that are unconditioned or served by systems not covered by the requirements of Section C403.1.1 shall be omitted.

D601.1.1 Number of blocks. One or more *blocks* may be required per building based on the following restrictions:

1. Each *block* can have only one occupancy type (multifamily dwelling unit, multifamily common area, office, library, education or retail). Therefore, at least one single *block* shall be created for each unique use type.

2. Each *block* can be served by only one type of HVAC system. Therefore, a single *block* shall be created for each unique HVAC system and use type combination. Multiple HVAC units of the same type may be represented in one *block*. Section D601.10.2 provides directions for combining multiple HVAC units or components of the same type into a single *block*.

3. Each *block* can have a single definition of floor to floor or floor to ceiling heights. Where floor heights differ by more than 2 feet, unique *blocks* should be created for the floors with varying heights.

4. Each *block* can include either above grade or below grade floors. For buildings with both above grade and below grade floors, separate *blocks* should be created for each. For buildings with floors partially above grade and partially below grade, if the total wall area of the floor(s) in consideration is greater than or equal to 50 percent above grade, then it should be simulated as a completely above grade *block*, otherwise it should be simulated as a below grade *block*.

5. Each wall on a façade of a *block* shall have similar vertical fenestration. The product of the *proposed design* U-factor times the area of windows (UA) on each façade of a given floor cannot differ by more than 15 percent of the average UA for that façade in each *block*. The product of the *proposed design* SHGC times the area of windows (SHGCA) on each façade of a given floor cannot differ by more than 15 percent of the average SHGCA for that façade in each *block*. If either of these conditions are not met, additional *blocks* shall be created consisting of floors with similar fenestration.

6. For a building model with multiple *blocks*, the *blocks* should be configured together to have the same adjacencies as the actual building design.

D601.2 Thermal zoning. Each floor in a *block* shall be modeled as a single thermal zone or as five thermal zones consisting of four perimeter zones and a core zone. Below grade floors shall be modeled as a single thermal *block*. If any façade in the *block* is less than 45 feet in length, there shall only be a single thermal zone per floor. Otherwise each floor shall be modeled with 5 thermal zones. A perimeter zone shall be created extending from each façade to a depth of 15 feet. Where facades intersect, the zone boundary shall be formed by a 45 degree angle with the 2 facades. The remaining area on each floor shall be modeled as a core zone with no exterior walls.

D601.3 Occupancy.

D601.3.1 Occupancy type. The occupancy type for each *block* shall be consistent with the building area type as determined in accordance with Section C405.4.2.1. Portions of the building that are building area types other than multifamily *dwelling unit*, multifamily common area, office, school (education), library, or retail shall not be included in the simulation. Surfaces adjacent to such building portions shall be modeled as adiabatic in the simulation program.

D601.3.2 Occupancy schedule, density, and heat gain. The occupant density, heat gain, and schedule shall be for multifamily, office, retail, library, or school as specified by ASHRAE Standard 90.1 Normative Appendix C.

D601.4 Envelope components.

D601.4.1 Roofs. Roofs will be modeled with insulation above a steel roof deck. The roof *U*-factor and area shall be modeled as in the proposed design. If different roof thermal properties are present in a single block, an area weighted *U*-factor shall be used. Roof solar absorbance shall be modeled at 0.70 and emittance at 0.90.

D601.4.2 Above grade walls. Walls will be modeled as steel frame construction. The *U*-factor and area of above grade walls shall be modeled as in the *proposed design*. If different wall constructions exist on the façade of a *block* an area-weighted *U*-factor shall be used.

D601.4.3 Below grade walls. The *C*-factor and area of below grade walls shall be modeled as in the *proposed design*. If different slab on grade floor constructions exist in a *block*, an area-weighted *C*-factor shall be used.

D601.4.4 Above grade exterior floors. Exterior floors shall be modeled as steel frame. The *U*-factor and area of floors shall be modeled as in the *proposed design*. If different wall constructions exist in the block an area-weighted *U*-factor shall be used.

D601.4.5 Slab on grade floors. The *F*-factor and area of slab on grade floors shall be modeled as in the *proposed design*. If different below grade wall constructions exist in a *block*, an area-weighted *F*-factor shall be used.

D601.4.6 Vertical fenestration. The window area and area weighted *U*-factor and SHGC shall be modeled for each façade based on the *proposed design*. Each exterior surface in a *block* must comply with Section D601.1.1 item 5. Windows will be combined in to a single window cen-

tered on each façade based on the area and sill height input by the user. When different *U*-factors, SHGC or sill heights exist on a single façade, area weighted average for each shall be input by the user.

D601.4.7 Skylights. The skylight area and area weighted *U*-factor and SHGC shall be modeled for each floor based the *proposed design*. Skylights will be combined in to a single skylight centered on the roof of each zone based on the area input by the user.

D601.4.8 Exterior shading. Permanent window overhangs shall be modeled. When windows with and without overhangs or windows with different overhang projection factors exist on a façade, window width weighted projection factors shall be input by the user as follows.

$$P_{avg} = \frac{A_1 \times L_{o1} + A_2 \times L_{o2} \dots A_n \times L_{on}}{L_{w1} + L_{w2} \dots L_{wn}}$$

Where:

- P_{avg} = Average overhang projection modeled in the simulation tool.
- 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.
- L_o = Length off the overhang.
- L_w = Length of the window.

D601.5 Lighting. Interior lighting power density shall be equal to the allowance in Table C405.4.2(1) for multifamily, office, retail, library, or school. The lighting schedule shall be for multifamily, office, retail, library, or school as specified by ASHRAE Standard 90.1 Normative Appendix C. The impact of lighting controls is assumed to be captured by the lighting schedule and no explicit controls shall be modeled. Exterior lighting shall not be modeled.

D601.6 Miscellaneous equipment. The miscellaneous equipment schedule and power shall be for multifamily, office, retail, library, or school as specified by ASHRAE Standard 90.1 Normative Appendix C. The impact of miscellaneous equipment controls is assumed to be captured by the equipment schedule and no explicit controls shall be modeled.

EXCEPTIONS:

1. Multifamily *dwelling units* shall have a miscellaneous load density of 0.42 W/ft².
2. Multifamily common areas shall have a miscellaneous load density of 0 W/ft².

D601.7 Elevators. Elevators shall not be modeled.

D601.8 Service water heating equipment. Service water heating shall not be modeled.

D601.9 On-site renewable energy systems. On-site renewable energy systems shall not be modeled.

D601.10 HVAC equipment. HVAC systems shall meet the requirements of Section C403.

D601.10.1 Supported HVAC systems. At a minimum, the HVAC systems shown in Table D601.10.1 shall be supported by the simulation program.

Table D601.10.1

Proposed Building HVAC Systems Supported by HVAC TSPR Simulation Software

| System No. | System Name | System Abbreviation |
|------------|--|---------------------|
| 1 | Packaged Terminal Air Conditioner | PTAC |
| 2 | Packaged Terminal Air Heat Pump | PTHP |
| 3 | Packaged Single Zone Gas Furnace (includes split system) | PSZGF |
| 4 | Packaged Single Zone Heat Pump (air to air only) (includes split system) | PSZHP |
| 5 | Variable Refrigerant Flow (air cooled only) | VRF |
| 6 | Four Pipe Fan Coil | FPFC |
| 7 | Water Source Heat Pump | WSHP |
| 8 | Ground Source Heat Pump | GSHP |
| 9 | Packaged Variable Air Volume (dx cooling) | PVAV |
| 10 | Variable Air Volume (hydronic cooling) | VAV |
| 11 | Variable Air Volume with Fan Powered Terminal Units | VAVFPTU |
| 12 | Dedicated Outdoor Air System (in conjunction with systems 1-8) | DOAS |

D601.10.2 Proposed building HVAC system simulation. The HVAC systems shall be modeled as in the *proposed design* with clarifications and simplifications as described in Table D601.10.2. System parameters not described in the following sections shall be simulated to meet the minimum requirements of Section C403. All zones within a *block* shall be served by the same HVAC system type as described in Section D601.1.1 item 2. Where multiple system components serve a block, average values weighed by the appropriate metric as described in this section shall be used. Heat loss from ducts and pipes shall not be modeled.

1. Where multiple fan systems serve a single block, fan power shall be based on weighted average using the design supply air cfm.
2. Where multiple cooling systems serve a single block, COP shall be based on a weighted average using cooling capacity. DX coils shall be entered as multi-stage if more than 50% of coil capacity serving the block is multi-stage with staged controls.
3. Where multiple heating systems serve a single block, thermal efficiency or heating COP shall be based on a weighted average using heating capacity.
4. Where multiple boilers or chillers serve a heating water or chilled water loop, efficiency shall be based on a weighted average for using heating or cooling capacity.
5. When multiple cooling towers serving a condenser water loop are combined, the cooling tower efficiency, cooling tower design approach and design range are based on a weighted average of the design water flow rate through each cooling tower.

6. Where multiple pumps serve a heating water, chilled water or condenser water loop, pump power shall be based on a weighted average for using design water flow rate.

7. When multiple system types with and without economizers are combined, the economizer maximum outside air fraction of the combined system shall be based on weighted average of 100% supply air for systems with economizers and design outdoor air for systems without economizers.

8. Multiple systems with and without ERVs cannot be combined.

9. Systems with and without supply air temperature reset cannot be combined.

10. Systems with different fan control (constant volume, multi-speed or VAV) for supply fans cannot be combined.

11. Demand Controlled Ventilation (DCV) shall be modeled using a simplified approach that adjusts the design outdoor supply air flow rate based on the area of the building that is covered by DCV.

**Table D601.10.2
Proposed Building System Parameters**

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|-------------------------|--|-----------------------|---|--------------------|
| HVAC System Type | System Type | User Defined | Selected from Table D601.10.1 | All |
| System Sizing | Design Day Information | Fixed | 99.6 percent heating design and 1 percent dry-bulb and 1 percent wet-bulb cooling design | All |
| | Zone Coil Capacity | Fixed | Sizing factors used are 1.25 for heating equipment and 1.15 for cooling equipment | All |
| | Supply Airflow | Fixed | Based on a supply-air-to-room-air temperature <i>set-point</i> difference of 20°F | 1-11 |
| | | Fixed | Equal to required outdoor air ventilation | 12 |
| Outdoor Ventilation Air | Portion of Supply Air with Proposed Filter ≥ MERV 13 | User Defined | Percentage of supply air flow subject to higher filtration (Adjusts baseline fan power higher. Prorated) | All |
| | Outdoor Ventilation Air Flow Rate | Fixed | As specified in ASHRAE Standard 90.1 Normative Appendix C, adjusted for proposed DCV control | All |
| | Outdoor Ventilation Supply Air Flow Rate Adjustments | Fixed | Based on ASHRAE Standard 62.1 Section 6.2.4.3 system ventilation efficiency (E _V S) is 0.75 | 9-11 |
| | | Fixed | System ventilation efficiency (E _V S) is 1.0 | 1-8, 12 |
| | | Fixed | Base is 1.0 zone air distribution effectiveness | All |
| System Operation | Space Temperature Setpoints | Fixed | As specified in ASHRAE Standard 90.1 Normative Appendix C, except multifamily which shall use 68°F heating and 76°F cooling setpoints | 1-11 |
| | Fan Operation - Occupied | User Defined | Runs continuously during occupied hours or cycled to meet load. Multispeed fans reduce airflow related to thermal loads | 1-11 |
| | Fan Operation - Occupied | Fixed | Fan runs continuously during occupied hours | 12 |
| | Fan Operation - Night Cycle | Fixed | Fan cycles on to meet setback temperatures | 1-11 |

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|-------------------------------|--|-----------------------|---|--------------------------------|
| Packaged Equipment Efficiency | DX Cooling Efficiency | User Defined | Cooling COP without fan energy calculated in accordance with ASHRAE Standard 90.1 Section 11.5.2c. ^b | 1, 2, 3, 4, 5, 7, 8, 9, 11, 12 |
| | DX Coil Number of Stages | User Defined | Single state or multistage | 3, 4, 9, 10, 11, 12 |
| | Heat Pump Efficiency | User Defined | Heating COP without fan energy calculated in accordance with ASHRAE Standard 90.1 Section 11.5.2c. ^c | 2, 4, 5, 7, 8 |
| | Furnace Efficiency | User Defined | Furnace thermal efficiency ^c | 3, 9, 11, 12 |
| Heat Pump Supplemental Heat | Control | Fixed | Supplemental electric heat locked out above 40°F. Runs in conjunction with compressor between 40°F and 0°F. | 2, 4 |
| System Fan Power and Controls | Part-Load Fan Controls | User Defined | Constant volume or two speed | 1-8 |
| | Part-Load Fan Controls ^a | User Defined | Constant volume or variable air volume | 12 |
| | Part-Load Fan Controls ^a | Fixed | Variable air volume. VFD with static pressure reset. | 9-11 |
| | Design Fan Power (W/cfm) | User Defined | Input electric power for all fans is required to operate at <i>fan system design conditions</i> divided by the supply airflow rate. This is a "wire to air" value including all drive, motor efficiency and other losses. | All |
| | Low-Speed Fan Power | User Defined | Low speed input electric power for all fans required to operate at low speed conditions divided by the low speed supply airflow rate. This is a "wire to air" value including all drive, motor efficiency and other losses. | 1-8 |
| Variable Air Volume Systems | Supply Air Temperature (SAT) Controls | User Defined | If not SAT reset, constant at 55°F. Options for reset based on outdoor air temperature (OAT) or warmest zone. If warmest zone, then the user can specify the minimum and maximum temperatures. If OAT reset, SAT is reset higher to 60°F at outdoor low of 50°F. SAT is 55°F at outdoor high of 70°F. | 9, 10, 11 |
| | Minimum Terminal Unit Airflow Percentage | User Defined | Average minimum terminal unit airflow percentage for <i>block</i> weighted by cfm | 9, 10, 11 |
| | Terminal Unit Heating Source | User Defined | Electric or hydronic | 9, 10, 11 |
| | Dual Set Point Minimum VAV Damper Position | User Defined | Heating maximum airflow fractions | 9, 10 |
| | Fan Powered Terminal Unit (FPTU) Type | User Defined | Series or parallel FPTU | 11 |
| | Parallel FPTU Fan | Fixed | Sized for 50 percent peak primary air at 0.35 W/cfm | 11 |
| | Series FPTU Fan | Fixed | Sized for 50 percent peak primary air at 0.35 W/cfm | 11 |

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|-------------------------------|--|-----------------------|---|------------------------|
| Economizer | Economizer Presence | User Defined | Yes or No | 3, 4, 9, 10, 11 |
| | Economizer Control Type | Fixed | Differential dry-bulb | 3, 4, 9, 10, 11 |
| Energy Recovery | Sensible Effectiveness | User Defined | Heat exchanger sensible effectiveness at design heating and cooling conditions | 3, 4, 9, 10, 11, 12 |
| | Latent Effectiveness | User Defined | Heat exchanger latent effectiveness at design heating and cooling conditions | 3, 4, 9, 10, 11, 12 |
| | Economizer Bypass | User Defined | If ERV is bypassed during economizer conditions | 3, 4, 9, 10, 11, 12 |
| | Bypass SAT Setpoint | User Defined | If bypass, target supply air temperature | 3, 4, 9, 10, 11, 12 |
| | Fan Power Reduction during Bypass (W/cfm) | User Defined | If ERV system include bypass, static pressure setpoint and variable speed fan, fan power can be reduced during economizer conditions | 3, 4, 9, 10, 11, 12 |
| Demand Controlled Ventilation | DCV Application | User Defined | Percent of block floor area under DCV control | 3, 4, 9, 10, 11, 12 |
| DOAS | DOAS Fan Power W/cfm | User Defined | Fan electrical input power in W/cfm of supply airflow | 12 |
| | DOAS Supplemental Heating and Cooling | User Defined | Heating source, cooling source | 12 |
| | Minimum SAT Setpoint (Cooling) | User Defined | SAT setpoint if DOAS includes supplemental cooling | 12 |
| | Minimum SAT Setpoint (Heating) | User Defined | SAT setpoint if DOAS includes supplemental heating | 12 |
| Heating Plant | Boiler Efficiency | User Defined | Boiler thermal efficiency | 1, 6, 7, 9, 10, 11, 12 |
| | Heating Water Loop Configuration ^a | User Defined | Constant flow primary only; variable flow primary only; constant flow primary-variable flow secondary; variable flow primary and secondary | 1, 6, 7, 9, 10, 11, 12 |
| | Heating Water Primary Pump Power (W/gpm) | User Defined | Heating water primary pump input W/gpm heating water flow | 1, 6, 7, 9, 10, 11, 12 |
| | Heating Water Secondary Pump Power (W/gpm) | User Defined | Heating water secondary pump input W/gpm heating water flow (if primary/secondary) | 1, 6, 7, 9, 10, 11, 12 |
| | Heating Water Loop Temperature | User Defined | Heating water supply and return temperatures | 1, 6, 9, 10, 11, 12 |
| | Heating Water Loop Supply Temperature Reset Included | User Defined | Yes/No | 1, 6, 9, 10, 11, 12 |
| | Heating Water Loop Supply Temperature Reset | Fixed | Reset HWS by 27.3 percent of design delta-T (HWS - 70°F (21.1°C) space heating temperature set point) between 20°F (-6.7°C) and 50°F (10°C) OAT | 1, 6, 9, 10, 11, 12 |
| | Boiler Type | Fixed | Noncondensing boiler where input thermal efficiency is less than 86 percent; condensing boiler otherwise | 1, 6, 7, 9, 10, 11, 12 |

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|------------------------------------|--|-----------------------|--|---------------------|
| Chilled Water Plant | Chiller Compressor Type | User Defined | Screw/scroll, centrifugal or reciprocating | 6,10, 11, 12 |
| | Chiller Condenser Type | User Defined | Air cooled or water cooled | 6, 10, 11, 12 |
| | Chiller Full Load Efficiency | User Defined | Chiller COP | 6, 10, 11, 12 |
| | Chilled Water Loop Configuration ^a | User Defined | Variable flow primary only, constant flow primary - variable flow secondary, variable flow primary and secondary | 6, 10, 11, 12 |
| | Chilled Water Primary Pump Power (W/gpm) | User Defined | Primary pump input W/gpm chilled water flow (if primary/secondary) | 6, 10, 11, 12 |
| | Chilled Water Secondary Pump Power (W/gpm) | User Defined | Secondary pump input W/gpm chilled water flow | 6, 10, 11, 12 |
| | Chilled Water Temperature Reset Included | User Defined | Yes/No | 6, 10, 11, 12 |
| | Chilled Water Temperature Reset Schedule (if included) | Fixed | Outdoor air reset: CHW supply temperature of 44°F at 80°F outdoor air dry-bulb and above, CHW supply temperature of 54°F at 60°F outdoor air dry-bulb temperature and below, ramped linearly between | 6, 10, 11, 12 |
| | Condenser Water Pump Power (W/gpm) | User Defined | Pump input W/gpm condenser water flow | 6, 7, 8, 10, 11, 12 |
| | Condenser Water Pump Control | User Defined | Constant speed or variable speed | 6, 7, 8, 10, 11, 12 |
| | Cooling Tower Efficiency | User Defined | gpm/hp tower fan | 6, 7, 10, 11, 12 |
| | Cooling Tower Fan Control | User Defined | Constant or variable speed | 6, 7, 10, 11, 12 |
| | Cooling Tower Approach and Range | User Defined | Design cooling tower approach and range temperature | 6, 7, 10, 11, 12 |
| Heat Pump Loop Flow Control | Loop Flow and Heat Pump Control Valve | Fixed | Two position valve with VFD on pump. Loop flow at 3 gpm/ton | 7, 8 |
| Heat Pump Loop Temperature Control | | User Defined | Restrict to minimum 20°F and maximum 40°F temperature difference | 7 |
| GLHP Well Field | | Fixed | Bore depth = 250 feet Bore length 200 feet/ton for greater of cooling or heating load Bore spacing = 15 feet Bore diameter = 5 inches 3/4 inch Polyethylene pipe Ground and grout conductivity = 4.8 Btu-in/h-ft ² -°F | 8 |

^a Part load fan power and pump power modified in accordance with Table D601.10.3.

**Table D601.10.3
Fan and Pump Power Curve Coefficients**

| Equation Term | Fan Power Coefficients | Pump Power Coefficients | |
|----------------|------------------------|-------------------------|----------------------|
| | VSD + SP Reset | Ride Pump Curve | VSD + DP/Valve Reset |
| b | 0.0408 | 0 | 0 |
| x | 0.088 | 3.2485 | 0.0205 |
| x ² | -0.0729 | -4.7443 | 0.4101 |
| x ³ | 0.9437 | 2.5295 | 0.5753 |

D602 Simulation of the standard reference design. The *standard reference design* shall be configured and analyzed as specified in this section.

D602.1 Utility rates. Same as proposed.

D602.2 Blocks. Same as proposed.

D602.3 Thermal zoning. Same as proposed.

D602.4 Occupancy type, schedule, density, and heat gain. Same as proposed.

D602.5 Envelope components. Same as proposed.

D602.6 Lighting. Same as proposed.

D602.7 Miscellaneous equipment. Same as proposed.

D602.8 Elevators. Not modeled. Same as proposed.

D602.9 Service water heating equipment. Not modeled. Same as proposed.

D602.10 On-site renewable energy systems. Not modeled. Same as proposed.

D602.11 HVAC equipment. The *standard reference design* HVAC equipment consists of separate space conditioning systems and dedicated outside air systems as described in Table D602.11 for the appropriate building occupancies.

**Table D602.11
Standard Reference Design HVAC Systems**

| Parameter | Building Type | | | | |
|---|-------------------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|
| | Large Office ^a | Small Office and Libraries ^a | Retail | School | Multifamily |
| System Type | Water-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump |
| Fan Control ^b | Cycle on Load | Cycle on Load | Cycle on Load | Cycle on Load | Cycle on Load |
| Space Condition Fan Power (W/cfm) Proposed < MERV 13 | 0.528 | 0.528 | 0.522 | 0.528 | 0.528 |
| Space Condition Fan Power (W/cfm) Proposed ≥ MERV 13 | 0.634 | 0.634 | 0.634 | 0.634 | 0.634 |
| Heating/Cooling Sizing Factor ^c | 1.25/1.15 | 1.25/1.15 | 1.25/1.15 | 1.25/1.15 | 1.25/1.15 |
| Supplemental Heating Availability | NA | <40°F | <40°F | <40°F | <40°F |
| Modeled cooling COP (Net of Fan) ^d | 4.46 | 3.83 | 4.25 | 3.83 | 3.83 |
| Modeled heating COP (Net of Fan) ^d | 4.61 | 3.81 | 3.57 | 3.81 | 3.86 |
| Cooling Source | DX (Heat Pump) | DX (Heat Pump) | DX (Heat Pump) | DX (Heat Pump) | DX (Heat Pump) |
| Heat Source | Heat Pump | Heat Pump | Heat Pump | Heat Pump | Heat Pump |

| Parameter | Building Type | | | | |
|--|----------------------------|---|-------------------------------|-------------------------------|-------------------------------|
| | Large Office ^a | Small Office and Libraries ^a | Retail | School | Multifamily |
| System Type | Water-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump |
| Number of Stages of Cooling | Single | Single | Two | Single | Single |
| OSA Economizer ^c | No | No | Yes | Yes | Yes |
| Occupied Ventilation Source ^f | DOAS | DOAS | DOAS | DOAS | DOAS |
| DOAS Fan Power (W/cfm of Outside Air) | 0.819 | 0.819 | 0.730 | 0.742 | 0.780 |
| DOAS Fan Power (W/cfm) Proposed ≥ MERV 13 | 1.042 | 1.042 | 0.928 | 0.944 | 0.944 |
| DOAS Temperature Control ^{g, h} | Bypass | Wild | Bypass | Bypass | Wild |
| ERV Efficiency (Sensible Only) | 70 percent | 70 percent | 70 percent | 70 percent | 70 percent |
| WSHP Loop Heat Rejection | Cooling Tower ⁱ | NA | NA | NA | NA |
| WSHP Loop Heat Source | Gas Boiler ^j | NA | NA | NA | NA |
| WSHP Loop Temperature Control ^k | 50°F to 70°F | NA | NA | NA | NA |
| WSHP Circulation Pump W/gpm ^l | 16 | NA | NA | NA | NA |
| WSHP Loop Pumping Control ^m | HP Valves & Pump VSD | NA | NA | NA | NA |

^a Offices less than 50,000 square feet use "Small Office" parameters; otherwise use "Large Office" parameters.

^b Space conditioning system shall cycle on to meet heating and cooling setpoint schedules as specified in ASHRAE Standard 90.1 Normative Appendix C. One space conditioning system is modeled in each zone. Conditioning system fan operation is not necessary for ventilation delivery.

^c The equipment capacities (i.e., system coil capacities) for the *standard reference design* building design shall be based on design day sizing runs and shall be oversized by 15 percent for cooling and 25 percent for heating.

^d COPs shown are direct heating or cooling performance and do not include fan energy use. See ASHRAE 90.1 Appendix G (G3.1.2.1) for separation of fan from COP in packaged equipment for units where the efficiency rating includes fan energy (e.g., SEER, EER, HSPF, COP).

^e Economizer on space conditioning systems shall be simulated when outdoor air conditions allow free cooling. Economizer high limit shall be based on differential dry-bulb control. DOAS system continues to operate during economizer mode.

^f Airflow equal to the outside air ventilation requirements is supplied and exhausted through a separate DOAS system including a supply fan, exhaust fan and sensible only heat exchanger. No additional heating or cooling shall be provided by the DOAS. A single DOAS system will be provided for each *block*. The DOAS supply and return fans shall run whenever the HVAC system is scheduled to operate in accordance with ASHRAE 90.1 Normative Appendix C.

- ^g "Wild" DOAS control indicates no active control of the supply air temperature leaving the DOAS system. Temperature will fluctuate based only on entering and leaving conditions and the effectiveness of ERV.
- ^h "Bypass" DOAS control includes modulating dampers to bypass ERV with the intent to maintain supply air temperature at a maximum of 60°F when outside air is below 75°F. Once outside air is above 75°F, bypass dampers will be fully closed.
- ⁱ Includes a single axial fan cooling tower with variable speed fans at 40.2 gpm/hp, sized for an approach of 10°F and a range of 10°F.
- ^j Includes a single natural draft boiler with 80 percent E_t.
- ^k Loop boiler and heat rejection shall be controlled to maintain loop temperature entering heat pumps between 50°F and 70°F.
- ^l Pump motor input power shall be 16 W/gpm.
- ^m Loop flow shall be variable with variable speed drive pump and unit fluid flow shutoff at each heat pump when its compressor cycles off.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-80500, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-80500, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-80500, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-80500, filed 1/19/16, effective 7/1/16.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

OTS-5009.3

OPTION 2

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23, and 9/25/23 [11/26/19], effective 3/15/24 [7/1/20])

WAC 51-11C-10100 Section C101—Scope and general requirements.

C101.1 Title. This code shall be known as the *Washington State Energy Code*, and shall be cited as such. It is referred to herein as "this code."

The 2021 edition of the Washington State Energy Code is hereby adopted. The Washington State Energy Code adopted under chapter 51-11C WAC shall become effective in all counties and cities of this state on (~~July 1, 2023~~) March 15, 2023.

C101.2 Scope. This code applies to *commercial buildings* and the buildings sites and associated systems and equipment. References in this code to Group R shall include Group I-1, Condition 2 assisted living facilities licensed by Washington state under chapter 388-78A WAC and Group I-1, Condition 2 residential treatment facilities licensed by Washington state under chapter 246-337 WAC. Building areas that contain Group R sleeping units, regardless of the number of stories in height, are required to comply with the commercial sections of the energy code.

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. A temporary growing structure is not considered a building for the purposes of this code. However, the installation of other than listed, portable mechanical equipment or listed, portable lighting fixtures is not allowed.

C101.3 Intent. This code shall regulate the design and construction of buildings for the use and conservation of energy over the 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-10100, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-10100, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, and chapters 19.27, 19.27A, and 34.05 RCW. WSR 17-17-162, § 51-11C-10100, filed 8/23/17, effective 10/1/17. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-10100, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-10100, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [16-03-072], filed 7/1/22, 6/7/23, and 9/25/23 [1/19/16], effective 3/15/24 [7/1/16])

WAC 51-11C-10800 Section C108—Referenced standards.

C108.1 Referenced codes and standards. The codes and standards referenced in this code shall be those listed in Chapter ((5)) 6, 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 C108.1.1 and C108.1.2.

C108.1.1 Conflicts. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

C108.1.2 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.

C108.2 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.

C108.3 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.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-10800, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-10800, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-10800, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23, and 9/25/23 [11/26/19], effective 3/15/24 [7/1/20])

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.

DATA CENTER. A room or series of rooms that share *data center systems* whose primary function is to house equipment for the processing and storage of electronic data, which has a design total *information technology equipment (ITE)* power density exceeding 20 watts per square foot (215 watts per m²) of conditioned area and a total design *ITE* equipment load greater than 10 kW.

DATA CENTER SYSTEMS. HVAC systems, electrical systems, equipment, or portions thereof used to condition *ITE* or electrical systems in a *data center*.

DAYLIGHT RESPONSIVE CONTROL. A device or system that provides automatic control of electric light levels based on the amount of daylight in a space.

DAYLIGHT ZONE. The portion of the building interior floor area that is illuminated by natural daylight through sidelit and toplit fenestration.

DECORATIVE APPLIANCE, VENTED. A vented appliance wherein the primary function lies in the aesthetic effect of the flames.

DEDICATED OUTDOOR AIR SYSTEM (DOAS). A ventilation system that supplies 100 percent outdoor air primarily for the purpose of ventilation without requiring operation of a space-conditioning system fan for outdoor air delivery.

DEMAND CONTROL KITCHEN VENTILATION (DCKV). A system that provides automatic, continuous control over exhaust hood, where required, and make-up air fan speed in response to one or more sensors that monitor cooking activity or through direct communication with cooking appliances.

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 having one or more recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe.

DEMAND RESPONSE SIGNAL. A signal that indicates a price or a request to modify electricity consumption for a limited time period.

DEMAND RESPONSIVE CONTROL. A control capable of receiving and automatically responding to a *demand response signal*.

DESICCANT DEHUMIDIFICATION SYSTEM. A mechanical dehumidification technology that uses a solid or liquid material to remove moisture from the air.

DIRECT DIGITAL CONTROL (DDC). A type of control where controlled and monitored analog or binary data such as temperature and contact closures are converted to digital format for manipulation and calculations by a digital computer or microprocessor, then converted back to analog or binary form to control physical devices.

DIRECTLY OWNED OFF-SITE RENEWABLE ENERGY SYSTEM. An off-site renewable energy system owned by the building project owner.

DISTRICT ENERGY EFFICIENCY FACTOR. Ratio of site energy input at the district plant required to produce a unit of heating or cooling at the project site on an annual basis, supported by calculations approved by the code official.

DOOR, GARAGE. Nonswinging doors rated by DASMA 105 with a single panel or horizontally hinged sectional panels.

DOOR, NONSWINGING. Roll-up, tilt-up, metal coiling and sliding doors, access hatches, and all other doors that are not swinging doors or garage doors with less than or equal to 14 percent glazing.

DOOR, SWINGING. Doors that are hinged on one side and revolving doors.

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.

DX-DEDICATED OUTDOOR AIR SYSTEM UNITS (DX-DOAS UNITS). A type of air-cooled, water-cooled or water source factory assembled product that dehumidifies 100 percent outdoor air to a low dew point and includes reheat that is capable of controlling the supply dry-bulb temperature of the dehumidified air to the designated supply air temperature. This conditioned outdoor air is then delivered directly or indirectly to the conditioned spaces. It may precondition outdoor air by containing an enthalpy wheel, sensible wheel, desiccant wheel, plate heat exchanger, heat pipes, or other heat or mass transfer apparatus.

DYNAMIC GLAZING. Any fenestration product that has the fully reversible ability to change its performance properties, including *U*-factor, SHGC, or VT.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, §

51-11C-20204, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-20204, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-24-070, § 51-11C-20204, filed 12/6/16, effective 5/1/17. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-20204, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-20204, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40314 Section C403.1.4—HVAC heating equipment.

C403.1.4 Use of electric resistance and fossil fuel-fired HVAC heating equipment. Commercial buildings shall comply with one of the following:

1. Fossil fuel space heating pathway: HVAC heating provided by a fossil fuel appliance shall comply with Section C406.1.3. Fossil fuel combustion appliances are permitted for HVAC heating, and shall comply with the applicable efficiency standards referenced in Section C403.3.3.2. Additionally, the following provisions shall be required for new construction:

1.1. Provide a spare electrical branch circuit conduit to that appliance sized to support an equivalent heat pump appliance.

1.2. Provide spare electrical service entrance conduits for the purpose of upgrading the main electrical service to support all heat pump appliances throughout the building.

1.3. The main electrical room has sufficient space to accommodate increasing the main electrical service's size to support all heat pump appliances throughout the building.

1.4. Additional accommodations for the utility equipment comprised of transformer(s) and other equipment necessary to support an electrical service upgrade. These accommodations shall include adequate space on the site. Where the utility equipment is located in a transformer vault, that vault must include not only the space but the additional cooling for larger transformer(s).

2. Heat pump space heating pathway: HVAC heating energy shall not be provided by electric resistance or fossil fuel combustion appliances. For the purposes of this section, electric resistance HVAC heating appliances include, but are not limited to, electric baseboard, electric resistance fan coil and VAV electric resistance terminal re-heat units and electric resistance boilers. For the purposes of this section, fossil fuel combustion HVAC heating appliances include, but are not limited to, appliances burning natural gas, heating oil, propane, or other fossil fuels.

EXCEPTIONS:

1. **Low heating capacity.** Buildings or areas of buildings, other than *dwelling units* or sleeping units, that meet the interior temperature requirements of Chapter 12 of the *International Building Code* with a total installed HVAC heating capacity no greater than 8.5 Btu/h (2.5 watts) per square foot of *conditioned space* are permitted to be heated using electric resistance appliances.
2. **Dwelling and sleeping units.** Dwelling or sleeping units are permitted to be heated using electric resistance appliances as long as the installed HVAC heating capacity in any separate space is not greater than:
 - 2.1. Seven hundred fifty (750) watts in Climate Zone 4, and 1000 watts in Climate Zone 5 in each habitable space with fenestration.
 - 2.2. One thousand (1,000) watts in Climate Zone 4, and 1300 watts in Climate Zone 5 for each habitable space that has two primary walls facing different cardinal directions, each with exterior fenestration. Bay windows and other minor offsets are not considered primary walls.

2.3. Two hundred fifty (250) watts in spaces adjoining the *building thermal envelope* but without fenestration.

For the purposes of this section, habitable space is as defined in the International Building Code. For buildings in locations with exterior design conditions below 4°F (-16°C), an additional 250 watts above that allowed for Climate Zone 5 is permitted in each space with fenestration.

3. **Small buildings.** Buildings with less than 2,500 square feet (232 m²) of *conditioned floor area* are permitted to be heated using electric resistance appliances.

4. **Defrost.** Heat pumps are permitted to utilize electric resistance heating when a heat pump defrost cycle is required and is in operation.

5. **Air-to-air heat pumps.** Buildings are permitted to utilize ~~((internal electric resistance heaters to supplement heat pump))~~ supplemental heating sources for air-to-air heat pumps that meet all of the following conditions:

5.1. Internal electric resistance heaters have controls that prevent supplemental heater operation when the heating load can be met by the heat pump alone during both steady-state operation and setback recovery.

5.2. The heat pump controls are configured to use the compressor as the first stage of heating down to an outdoor air temperature of 17°F (-8°C) or lower except when in defrost.

EXCEPTIONS TO 5.2:

1. Packaged terminal heat pumps (PTHPs) that comply with the minimum heating efficiency requirements in Table C403.3.2(4) are exempt from heating pump controls capable of operating the compressor as the first stage of heating down to an outdoor air temperature of 17°F (-8°C) or lower.

2. Heat pumps whose minimum efficiency is regulated by NAECA and whose ratings meet the requirements shown in Table C403.3.2(2) and include all usage of internal electric resistance heating are exempt from heat pump controls capable of operating the compressor as the first stage of heating down to an outdoor air temperature of 17°F (-8°C) or lower.

5.3. The heat pump complies with one of the following:

5.3.1. Controlled by a digital or electronic thermostat designed for heat pump use that energizes the supplemental heat only when the heat pump has insufficient capacity to maintain set point or to warm up the space at a sufficient rate.

5.3.2. Controlled by a multistage space thermostat and an outdoor air thermostat wired to energize supplemental heat only on the last stage of the space thermostat and when outdoor air temperature is less than 32°F (0°C) except when in defrost.

5.3.3. The minimum efficiency of the heat pump is regulated by NAECA, its rating meets the requirements shown in Table C403.3.2(2), and its rating includes all usage of internal electric resistance heating.

5.4. The heat pump rated heating capacity is sized to meet the heating load at an outdoor air temperature of 32°F (0°C) or lower and has a rated heating capacity at 47°F (8°C) no less than 2 times greater than supplemental ~~((internal electric resistance))~~ heating capacity in Climate Zone 4 and no less than the supplemental ~~((internal electric resistance))~~ heating capacity in Climate Zone 5, or utilizes the smallest available factory-available internal electric resistance heater.

6. **Air-to-water heat pumps.** Buildings are permitted to utilize electric resistance (for Climate Zone 4 or 5) or fossil fuel-fired (for Climate Zone 5) auxiliary heating to supplement heat pump heating for hydronic heating systems that meet all of the following conditions:

6.1. Controls for the auxiliary ~~((electric resistance or fossil fuel-fired))~~ heating sources are configured to lock out the supplemental heat when the outside air temperature is above 36°F (2°C), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes.

6.2. The heat pump controls are configured to use the compressor as the first stage of heating down to the lowest exterior design temperature for which the equipment is rated except during startup or defrost operation.

6.3. The heat pump rated heating capacity at 47°F (8°C) is no less than 75 percent of the design heating load at 29°F (-2°C).

7. **Ground source heat pumps.** Buildings are permitted to utilize ~~((electric resistance auxiliary heating to supplement))~~ supplemental heating sources for heat pump heating for hydronic heating systems with ground source heat pump equipment that meets all of the following conditions:

7.1. Controls for the auxiliary ~~((resistance))~~ heating sources are configured to lock out the supplemental heat when the equipment source-side entering water temperature is above 42°F (6°C), unless the hot water supply temperature setpoint to the building heat coils cannot be maintained for 20 minutes.

7.2. The heat pump controls are configured to use the compressor as the first stage of heating.

7.3. The ground source heat exchanger shall be sized so that the heat pump annual heating output is no less than 70 percent of the total annual heating output in the final year of a 30-year simulation using IGSHPA listed simulation software.

8. **Small systems.** Buildings in which electric resistance or fossil fuel appliances, including decorative appliances, either provide less than 5 percent of the total building HVAC system heating capacity or serve less than 5 percent of the *conditioned floor area*.

9. **Specific conditions.** Portions of buildings that require fossil fuel or electric resistance space heating for specific conditions *approved* by the *code official* for research, health care, process or other specific needs that cannot practically be served by heat pump or other space heating systems. This does not constitute a blanket exception for any occupancy type.

10. **Kitchen make-up air.** Make-up air for commercial kitchen exhaust systems required to be tempered by Section 508.1.1 of the *International Mechanical Code* is permitted to be heated by using fossil fuel in Climate Zone 5 or electric resistance in Climate Zone 4 or 5.

11. **District energy.** Steam or hot water district energy systems that utilize fossil fuels as their primary source of heat energy, that serve multiple buildings, and that were already in existence prior to the effective date of this code, including more energy-efficient upgrades to such existing systems, are permitted to serve as the primary heating energy source.

12. **Heat tape.** Heat tape is permitted where it protects water-filled equipment and piping located outside of the *building thermal envelope*, provided that it is configured and controlled to be automatically turned off when the outside air temperature is above 40°F (4°C).

13. **Temporary systems.** Temporary electric resistance heating systems are permitted where serving future tenant spaces that are unfinished and unoccupied, provided that the heating equipment is sized and controlled to achieve interior space temperatures no higher than 40°F (4°C).

14. **Pasteurization.** Electric resistance heat controls are permitted to reset the supply water temperature of hydronic heating systems that serve service water heating heat exchangers during pasteurization cycles of the service hot water storage volume. The hydronic heating system supply water temperature shall be configured to be 145°F (63°C) or lower during the pasteurization cycle.

15. **Freeze protection.** Heating systems sized for spaces with indoor design conditions of 45°F (7°C) and intended for freeze protection are permitted to use electric resistance. The building envelope of any such space shall be insulated in compliance with Section C402.1.

16. **DOAS ERV auxiliary heat.** Dedicated outdoor air systems with energy recovery ventilation are permitted to utilize fossil fuel for Climate Zone 5 or electric resistance in Climate Zone 4 or 5 for auxiliary heating to preheat outdoor air for defrost or as auxiliary supplemental heat to temper supply air to 55°F (13°C) or lower for buildings or portions of buildings that do not have hydronic heating systems.

17. **Low-carbon district energy systems.** Low-carbon district energy systems that meet the definitions of *low-carbon district energy exchange system* or *low-carbon district heating and cooling or heating only systems*.

18. **Essential facilities.** Groups I-2 and I-3 occupancies that by regulation are required to have in place redundant emergency backup systems.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40314, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23, and 9/25/23 [11/26/19], effective 3/15/24 [7/1/20])

WAC 51-11C-40341 Section C403.4.1—Thermostatic controls.

C403.4.1 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. Controls in the same zone or in neighboring zones connected by openings larger than 10 percent of the floor area of either zone shall not allow for simultaneous heating and cooling. 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 activate the economizer when appropriate as the first stage of cooling. See Section C403.5 for further economizer requirements. Where humidification or dehumidification or both is provided, at least one humidity control device shall be provided for each humidity control system.

EXCEPTIONS:

1. 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:
 - 1.1. 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);
 - 1.2. The perimeter system heating and cooling supply is controlled by a thermostat located within the *zones* served by the system; and
 - 1.3. Controls are configured to prevent the perimeter system from operating in a different heating or cooling mode from the other equipment within the zones or from neighboring zones connected by openings larger than 10 percent of the floor area of either zone.
2. Where an interior zone and a perimeter zone are open to each other with permanent openings larger than 10 percent of the floor area of either zone, cooling in the interior zone is permitted to operate at times when the perimeter zone is in heating and the interior zone temperature is at least 5°F (2.8°C) higher than the perimeter zone temperature. For the purposes of this exception, a permanent opening is an opening without doors or other operable closures.
3. Dedicated outdoor air units that provide ventilation air, make-up air or replacement air for exhaust systems are permitted to be controlled based on supply air temperature. The supply air temperature shall be controlled to a maximum of 65°F (18.3°C) in heating and a minimum of 72°F (22°C) in cooling unless the supply air temperature is being reset based on the status of cooling or heating in the zones served or it being reset based on outdoor air temperature.

C403.4.1.1 Heat pump supplementary heat control. (~~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 (4.4°C).~~) Heat pumps equipped with internal electric resistance heaters shall have controls that prevent supplemental heater operation when the heating load can be met by the heat pump alone during both steady-state operation and setback recovery. Supplemental heater operation is permitted during outdoor coil defrost cycles. Heat pumps equipped with supplemental heaters shall comply with all conditions of Section C403.1.4.

EXCEPTIONS:

1. Packaged terminal heat pumps (PTHPs) of less than 2 tons (24,000 Btu/hr) cooling capacity and whose ratings meet the requirements shown in Table C403.3.2(4) that have reverse-cycle demand defrost and are configured to operate in heat pump mode whenever the outdoor air temperatures are above 25°F (-3.9°C) and the unit is not in defrost.
2. Heat pumps whose minimum efficiency is regulated by NAECA and whose ratings meet the requirements shown in Table C403.3.2(2) and include all usage of internal electric resistance heating.

C403.4.1.2 Deadband. Where used to control both heating and cooling, zone thermostatic controls shall be configured to 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 shut off or reduced to a minimum.

EXCEPTIONS: 1. Thermostats requiring manual changeover between heating and cooling modes.
2. Occupancies or applications requiring precision in indoor temperature control as *approved* by the *code official*.

C403.4.1.3 Setpoint overlap restriction. Where a zone has a separate heating and a separate cooling thermostatic control located within the zone, a limit switch, mechanical stop or direct digital control system with software programming shall be configured to prevent the heating setpoint from exceeding the cooling setpoint and to maintain a dead-band in accordance with Section C403.4.1.2.

C403.4.1.4 Heated or cooled vestibules and air curtains. The heating system for heated vestibules and air curtains with integral heating shall be provided with controls configured to shut off the source of heating when the outdoor air temperature is greater than 45°F (7°C). Vestibule heating and cooling systems shall be controlled by a thermostat located in the vestibule configured to limit heating to a temperature not greater than 60°F (16°C) and cooling to a temperature not less than 85°F (29°C).

EXCEPTIONS: 1. Control of heating or cooling provided by transfer air that would otherwise be exhausted.
2. Vestibule heating only systems are permitted to be controlled without an outdoor air temperature lockout when controlled by a thermostat located in the vestibule configured to limit heating to a temperature not greater than 45°F (7°C) where required for freeze protection of piping and sprinkler heads located in the vestibule.

C403.4.1.5 Hot water boiler outdoor temperature setback control. Hot water boilers that supply heat to the building through one- or two-pipe heating systems shall have an outdoor setback control that lowers the boiler water temperature based on the outdoor temperature.

C403.4.1.6 Operable opening switches for HVAC system thermostatic control. Operable openings meeting the minimum size criteria of Section C402.5.11 and that open to the outdoors from a conditioned space must have controls configured to do the following once doors have been open for 5 minutes:

1. Disable the mechanical heating to the zone or reset the space heating temperature setpoint to 55°F or less within 5 minutes of the door open enable signal.

2. Disable the mechanical cooling to the zone or reset the space cooling temperature setpoint to 85°F or more within 5 minutes of the door open enable signal.

EXCEPTION: Hydronic radiant heating and cooling systems.

C403.4.1.7 Demand responsive controls. Thermostatic controls for heating or cooling systems shall be provided with *demand responsive controls* capable of increasing the cooling setpoint and decreasing the heating setpoint by no less than 4°F (2.2°C). The thermostatic controls shall be capable of performing all other functions provided by the control when the *demand responsive controls* are not available. Systems with *direct digital control* of individual zones report to a central control panel shall be capable of remotely increasing the cooling setpoint and decreasing the heating setpoint for each zone by no less than 4°F (2.2°C).

EXCEPTION: Health care and assisted living facilities.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40341, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40341, filed 11/26/19, effec-

tive 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40341, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27.020, and 19.27.074. WSR 14-24-122, § 51-11C-40341, filed 12/3/14, effective 1/3/15. Statutory Authority: RCW 19.27A.025, 19.27A.045, and 19.27.074. WSR 13-20-120, § 51-11C-40341, filed 10/1/13, effective 11/1/13. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40341, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [20-21-080], filed 7/1/22, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

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. Water-heating equipment intended to be used to provide space heating shall meet the applicable provisions of Table C404.2. Commercial buildings shall comply with one of the following:

1. Fossil fuel water heater pathway: Service water heating provided by a fossil fuel combustion appliance shall comply with Section 406.1.3. Additionally, the following provisions shall be required for new construction:

1.1. Provide a spare electrical branch circuit conduit to that appliance sized to support an equivalent heat pump appliance.

1.2. Provide spare electrical service entrance conduits for the purpose of upgrading the main electrical service to support all heat pump appliances throughout the building.

1.3. The main electrical room has sufficient space to accommodate increasing the main electrical service's size to support all heat pump appliances throughout the building.

1.4. Additional accommodations for the utility equipment comprised of transformer(s) and other equipment necessary to support an electrical service upgrade. These accommodations shall include adequate space on the site. Where the utility equipment is located in a transformer vault, that vault must include not only the space but the additional cooling for larger transformer(s).

2. Heat pump water heater pathway: Comply with Section C404.2.1.

C404.2.1 Service water heating system type. Service hot water shall be provided by an electric air-source heat pump water heating (HPWH) system meeting the requirements of this section. Supplemental service water heating equipment is permitted to use electric resistance or fossil fuel in compliance with Section C404.2.1.4.

EXCEPTIONS: 1. 24 kW plus 0.1 watts per square foot of building area of electric resistance service water heating capacity is allowed per building.
2. Solar thermal, wastewater heat recovery, other *approved* waste heat recovery, ground source heat pumps, water-source heat pump systems utilizing waste heat, and combinations thereof, are permitted to offset all or any portion of the required HPWH capacity where such systems comply with this code and the *Uniform Plumbing Code*.

3. Systems that comply with the Northwest Energy Efficiency Alliance (NEEA) Commercial Electric Advanced Water Heating Specification.
4. Service hot water systems served by a district energy system that serves multiple buildings and that was in service before the effective date of this code.
5. Commercial dishwashers, commercial food service equipment, and other *approved* process equipment are permitted to utilize electric booster heaters for supply water temperatures 120°F (49°C) or higher.
6. Systems connected to a *low-carbon district energy exchange system* or a *low-carbon district heating and cooling or heating only system*.
7. Essential facilities. Groups I-2 and I-3 occupancies that by regulation are required to have in place redundant emergency backup systems.

C404.2.1.1 Primary heat pump system sizing. The system shall include a primary service output of 50 percent load at 40°F (4°C) dry bulb or wet bulb outdoor air temperature for air-source heat pumps, or 44°F (7°C) ground temperature for ground-source heat pumps that provides sufficient hot water as calculated using the equipment manufacturer's selection criteria or another *approved* methodology. Electric air source heat pumps shall be sized to deliver no less than 25 percent of the calculated demand for hot water production during the peak demand period when entering dry bulb or wet bulb outdoor air temperature of 24°F (-4°C). The remaining primary service output may be met by fossil fuel, electric resistance, or heat pump water heating systems.

EXCEPTION: Twenty-five percent sizing at entering dry bulb or wet bulb air temperature of 24°F (-4°C) is not required for air-source heat pumps located in a below-grade enclosed parking structure or other ventilated and unconditioned space that is not anticipated to fall below 40°F (4°C) at any time.

C404.2.1.2 Primary hot water storage sizing. The system shall provide sufficient hot water to satisfy peak demand period requirements.

C404.2.1.3 System design. The service water heating system shall be configured to conform to one of the following provisions:

1. For *single-pass heat pump water heaters*, *temperature maintenance* heating provided for reheating return water from the building's heated water circulation system shall be physically decoupled from the primary service water heating system storage tank(s) in a manner that prevents destratification of the primary system storage tanks. *Temperature maintenance* heating is permitted to be provided by electric resistance, fossil fuel, or a separate dedicated heat pump system.

2. For *multi-pass heat pump water heaters*, *recirculated temperature maintenance* water is permitted to be returned to the primary water storage tanks for reheating.

3. For unitary heat pump water heaters, located in conditioned space, are permitted, where they are sized to meet all calculated service water heating demand using the heat pump compressor, and not supplementary heat.

C404.2.1.3.1 Mixing valve. A thermostatic mixing valve capable of supplying hot water to the building at the user temperature setpoint shall be provided, in compliance with requirements of the *Uniform Plumbing Code* and the HPWH manufacturer's installation guidelines. The mixing valve shall be sized and rated to deliver tempered water in a range from the minimum flow of the *temperature maintenance* recirculation system up to the maximum demand for the fixtures served.

C404.2.1.4 Supplemental water heating. Total supplemental water heating equipment shall not have an output capacity greater than the primary water heating equipment at 40°F (4°C) entering dry bulb or wet bulb outdoor air temperature for air-source heat pumps or 44°F (7°C) ground temperature for ground-source heat pumps. Supplemental heating is permitted for the following uses:

1. *Temperature maintenance* of heated-water circulation systems, physically separate from the primary service water heating system.

Temperature maintenance heating capacity shall be no greater than the primary water heating capacity at 40°F (4°C) dry bulb or wet bulb outdoor air temperature for air-source heat pumps or 44°F (7°C) ground temperature for ground-source heat pumps.

2. Defrost of compressor coils.

3. Heat tracing of piping for freeze protection or for *temperature maintenance* in lieu of recirculation of hot water.

4. Backup or low ambient temperature conditions, where all of the following are true:

4.1. The supplemental heating capacity is no greater than the primary service water heating capacity at 40°F (4°C) dry bulb or wet bulb outdoor air temperature for air-source heat pumps or 44°F (7°C) ground temperature for ground-source heat pumps.

4.2. During normal operations, the supplemental heating is controlled to operate only when the entering air temperature at the air-source HPWH is below 40°F (4°C), and the primary HPWH compressor continues to operate together with the supplemental heating.

4.3. The primary water heating equipment cannot satisfy the system load due to equipment failure or entering air temperature below 40°F (4°C).

C404.2.1.5 System fault detection. The control system shall be capable of and configured to send automatic error alarms to building or maintenance personnel upon detection of equipment faults, low leaving water temperature from primary storage tanks, or low hot water supply delivery temperature to building distribution system.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40402, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-40402, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40402, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40402, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40402, filed 2/1/13, effective 7/1/13.]

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AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [20-21-080], filed 7/1/22, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11C-40600 Section C406—Efficiency and load management measures.

C406.1 Additional energy efficiency and load management measures credit requirements. The project as defined in the building permit shall meet the following requirements as applicable:

1. New buildings, changes in *space conditioning category*, change of occupancy group, and building additions in accordance with Chapter 5 shall comply with sufficient measures from Section C406.2 so as to

achieve the minimum number of required efficiency credits shown in Table C406.1.

2. New buildings greater than 5000 gross square feet of floor area shall comply with sufficient measures from Section C406.3 so as to achieve the minimum number of required load management credits shown in Table C406.1.

3. Tenant spaces shall comply in accordance with Section C406.1.1.

4. Projects using discrete area credit weighting shall comply in accordance with Section C406.1.2.

- EXCEPTIONS:
1. Low energy spaces in accordance with Section C402.1.1.1, equipment buildings in accordance with Section C402.1.2, unconditioned spaces, open parking garages, and enclosed parking garages that comply with sufficient measures from Table C406.2(1) or Table C406.2(2) to achieve a minimum of 50 percent of the efficiency credits required for new construction. Such projects shall be exempt from the load management requirements in Table C406.1.
 2. Building additions that have less than 1,000 square feet of conditioned floor area that comply with sufficient measures from Table C406.2(1) or Table C406.2(2) to achieve a minimum of 50 percent of the efficiency credits required for additions.
 3. Warehouses are exempt from the load management credit requirements in Table C406.1.

**Table C406.1
Energy Measure Credit Requirements**

| Required Credits for Projects | Section | Occupancy Group | | | | | |
|--|---------|-----------------|-----------|---------|---------|---------|-----------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| New building energy efficiency credit requirement | C406.2 | 54 | 41 | 42 | 48 | 74 | 49 |
| Building additions energy efficiency credit requirement | C406.2 | 27 | 20 | 21 | 23 | 36 | 21 |
| <i>If proposal 21-GP-136 is not included in the final adoption, then replace the two rows above with the following two rows:</i> | | | | | | | |
| New building energy efficiency credit requirement | C406.2 | 68 | 80 | 48 | 55 | 84 | 49 |
| Building additions energy efficiency credit requirement | C406.2 | 33 | 40 | 24 | 27 | 41 | 24 |
| New building load management credit requirement | C406.3 | 12 | 15 | 27 | 15 | 13 | 26 |

C406.1.1 Tenant spaces. An initial tenant improvement shall comply with sufficient measures from Table C406.2(1) or Table C406.2(2) to achieve a minimum of efficiency credits required in Table C406.1 and are not required to achieve any load management credits. In projects with multiple tenant spaces, each tenant space is permitted to apply for different measures provided the weighted average of all areas in the project comply with the overall efficiency credit requirement in Table C406.1. Whole building or addition energy credits shall be allocated to tenant spaces in accordance with Sections C406.1.1.1 and C406.1.1.2.

- EXCEPTIONS:
1. An initial tenant improvement where the core and shell building complied via Section C407 in 2018 or later edition of the Washington State Energy Code.
 2. Previously occupied tenant spaces in existing buildings that comply with this code in accordance with Section C501.

C406.1.1.1 Applicable envelope, renewable and elevator energy credits. Where an entire building or building addition complies with Section C406.2.4, C406.2.9, C406.2.10, or C406.2.14, under an initial tenant improvement permit, tenant spaces within the building qualify for the number of credits assigned to the occupancy group of the tenant space in accordance with Table C406.2(1) or Table C406.2(2). Where prior energy credits were achieved under the 2018 Washington State Energy Code, they shall be multiplied by 6 for applicability to this code.

C406.1.1.2 Applicable HVAC and service water heating credits. Where HVAC and service water heating systems and services are installed and comply with Section C406.2.4, C406.2.9, C406.2.10, or C406.2.14 under an initial tenant improvement permit, those systems and services shall be considered a part of the tenant space. Tenant spaces qualify for the credits assigned to the occupancy group of the tenant space in accordance with Table C406.2(1) or Table C406.2(2) if the tenant space includes the distribution system and equipment that the central HVAC systems or service water heating systems were designed to support.

C406.1.2 Discrete area-weighted project compliance. Discrete building areas (~~(shall be)~~) are permitted to select different packages of measures provided that the whole project complies with both the energy and load management credit requirements. Compliance shall be determined as follows:

1. (~~(Project credit requirement shall be the individual occupancy group requirements from Table C406.1 for each discrete area weighted by discrete area conditioned floor area.)~~) Required project credits shall be prorated on an area-weighted basis for each occupancy group by multiplying the occupancy group floor area by the number of credits required, and then dividing this value by the total area of all the occupancy groups combined. Where one occupancy group is less than 10 percent of the floor area of the project, use the primary occupancy group for all credits.

2. (~~(Determine the energy and load management credits achieved for each discrete area based on its occupancy group.)~~) Occupancies are permitted to be subdivided into discrete areas, with required and achieved credits for each area prorated on an area-weighted basis as required for the occupancy group.

3. Where envelope or lighting power credits in Section C406.2.3.1, C406.2.3.2, or C406.2.3.12 are (~~used~~) applied, the lighting power or envelope UA percentage reduction shall be calculated for the project as a whole to determine achieved credits.

(~~3.~~) 4. Determine total project credits achieved by area-weighting ((individual discrete area credits by discrete area conditioned floor area)) the achieved credits by occupancy group in the same manner as for required project credits.

(~~4.~~) 5. A project complies when ((both)) the achieved number of area-weighted energy and load management credits are equal to or greater than the required area-weighted ((project requirement)) number of credits.

C406.1.3 Fossil fuel pathways. Buildings that are choosing the fossil fuel pathway in Section C403.1.4, shall comply with Section C406.1.3.3 and shall achieve additional credits in Table C406.1 in accordance with Section C406.1.3.1. Buildings that are choosing the fossil fuel pathway in Section C404.2.1, shall comply with C406.1.3.3 and achieve additional credits in Table C406.1 in accordance with Section C406.1.3.2.

C406.1.3.1 Fossil fuel space heating baseline normalization. The number of energy efficiency credits required shall be increased according to the following equation:

$$CR = A - (A \times B/C)$$

Where:

- CR = Additional credits required, rounded to the nearest whole number.
- A = Baseline credits from Table C406.1.3.1.
- B = Installed space heating capacity in kBTU/h of space heating appliances that comply with any of the exceptions to Section C403.1.4.
- C = Total installed space heating capacity in kBTU/h of all space heating appliances.

**TABLE C406.1.3.1
FOSSIL FUEL SPACE HEATING BASELINE NORMALIZATION**

| <u>Measure Title</u> | <u>Applicable Section</u> | <u>Occupancy Group</u> | | | | | |
|--|---------------------------|------------------------|------------------|----------------|----------------|----------------|------------------|
| | | <u>Group R-1</u> | <u>Group R-2</u> | <u>Group B</u> | <u>Group E</u> | <u>Group M</u> | <u>All Other</u> |
| <u>Additional baseline credits required for space heating systems using the fossil fuel pathway.</u> | <u>C406.1.3.1</u> | <u>7</u> | <u>22</u> | <u>101</u> | <u>38</u> | <u>111</u> | <u>56</u> |

C406.1.3.2 Fossil fuel service water heating baseline normalization.
The number of energy efficiency credits required shall be increased according to the following equation:

$$CR = A - (A \times B/C)$$

Where:

- CR = Additional credits required, rounded to the nearest whole number.
- A = Additional baseline credits from Table C406.1.3.2.
- B = Installed service water heating capacity in kBTU/h of service water heating appliances that comply with any of the exceptions to Section C404.2.1.
- C = Total installed service water heating capacity in kBTU/h of all service water heating appliances.

**TABLE C406.1.3.2
FOSSIL FUEL SERVICE WATER HEATING BASELINE NORMALIZATION**

| <u>Measure Title</u> | <u>Applicable Section</u> | <u>Occupancy Group</u> | | | | | |
|--|---------------------------|------------------------|------------------|----------------|----------------|----------------|------------------|
| | | <u>Group R-1</u> | <u>Group R-2</u> | <u>Group B</u> | <u>Group E</u> | <u>Group M</u> | <u>All Other</u> |
| <u>Additional baseline credits required for service water heating systems using the fossil fuel pathway.</u> | <u>C406.1.3.2</u> | <u>198</u> | <u>204</u> | <u>27</u> | <u>17</u> | <u>79</u> | <u>105</u> |

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40600, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-40600, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter

19.27 RCW. WSR 19-24-040, § 51-11C-40600, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40600, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40600, filed 2/1/13, effective 7/1/13.]

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AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40620 Section C406.2—Additional energy efficiency credit measures.

C406.2 Additional energy efficiency credit measures. Each energy efficiency credit measure used to meet credit requirements for the project shall include efficiency that is greater than the energy efficiency required for the building type and configuration requirements in Sections C402 through C405. Measures installed in the project that meet the requirements in Sections C406.2.1 through C406.2.14 shall achieve the credits listed for the measure and occupancy group in Table C406.2(1) or Table C406.2(2) or where calculations required by Sections C406.2.1 through C406.2.14 create or modify the table credits, the credits achieved shall be based upon the section calculations. Projects that chose to comply with either fossil fuel pathway in Section C406.1.3 shall use Table C406.2(2) to achieve credits.

For mixed fuel heating systems, the number of space heating energy efficiency credits available for measures with a prorating flag "Heat" are calculated using the following equation:

$$C_{SH} = CHP_{SH} \times B/C + CFF_{SH} \times (1 - B/C)$$

Where:

- C_{SH} = Blended credits for mixed fuel systems.
CHP_{SH} = Credits available in Table 406.2(1).
CFF_{SH} = Credits available in Table 406.2(2).
B = Installed space heating capacity in kBTU/h of space heating appliances that comply with any of the exceptions to Section C403.1.4.
C = Total installed space heating capacity in kBTU/h of all space heating appliances.

For mixed fuel service water heating systems, the number of service water heating energy efficiency credits available for measures with a prorating flag "SWH" are calculated using the following equation:

$$C_{WH} = CHP_{WH} \times B/C + CFF_{WH} \times (1 - B/C)$$

Where:

- C_{WH} = Blended credits for mixed fuel systems.
CHP_{WH} = Credits available in Table 406.2(1).

- CFF_{WH} ≡ Credits available in Table 406.2(2).
- B ≡ Installed service water heating capacity in kBTU/h of service water heating appliances that comply with any of the exceptions to Section C404.2.1.
- C ≡ Total installed service water heating capacity in kBTU/h of all service water heating appliances.

~~(Table C406.2
Efficiency Measure Credits~~

| Measure Title | Applicable Section | Occupancy Group | | | | | |
|---|--------------------|-----------------|-----------------|-----------------|-----------------|---------------------------|----------------------------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| 1. Dwelling unit HVAC control | C406.2.1 | NA | 7 | NA | NA | NA | NA |
| 2. Improved HVAC TSPR ^a | C406.2.2.1 | NA | 8 | 11 | 17 | 22 | NA |
| 3. Improve cooling and fan efficiency | C406.2.2.2 | 2 | 2 | 3 | 4 | 3 | 2 |
| 4. Improve heating efficiency | C406.2.2.3 | 2 | 3 | 3 | 10 | 16 | 7 |
| 5. Improved low-carbon district energy system (10% better) | C406.2.2.4 | 3 | 3 | 4 | 11 | 17 | 8 |
| 6. Improved low-carbon district energy system (20% better) ^b | C406.2.2.5 | 9 | 10 | 12 | 33 | 52 | 24 |
| 7. High performance DOAS | C406.2.2.6 | 31 | 31 | 21 | 39 | 40 | 21/ (A) 40 ^c |
| 8. Fault detection & diagnostics (FDD) | C406.2.2.7 | 2 | 2 | 2 | 6 | 9 | 4 |
| 9. 10% reduced lighting power | C406.2.3.1 | 7 | 4 | 18 | 16 | 20 | 15 |
| 10. 20% reduced lighting power ^d | C406.2.3.2 | 13 | 8 | 36 | 32 | 40 | 29 |
| 11. Lamp efficacy improvement | C406.2.3.3 | 5 | 6 | NA | NA | NA | NA |
| 12. Residential lighting control | C406.2.4.1 | NA | 8 | NA | NA | NA | NA |
| 13. Enhanced lighting control | C406.2.4.2 | 1 | 1 | 6 | 6 | 11 | 6 |
| 14. Renewable energy | C406.2.5 | 7 | 12 | 13 | 13 | 10 | 11 |
| 15. Shower drain heat recovery | C406.2.6.1 | 9 | 30 | NA | 3 | NA | NA |
| 16. Service water heat recovery | C406.2.6.2 | 35 | 111 | 13 | 14 | (Grocery) 41 ^e | NA |
| 17. Heat pump water heating | C406.2.6.3 | 81 | 261 | 17 | 33 | (Grocery) 95 ^e | (A-2) 95 ^f |
| 18. Heat trace system | C406.2.7.1 | 6 | 13 | 4 | 1 | NA | 6 |
| 19. Point of use water heater | C406.2.7.2 | NA | NA | 19 | 5 | NA | NA |
| 20. Service hot water distribution right sizing | C406.2.8 | 13 | 42 | NA | NA | NA | NA |
| 21. High performance service hot water temperature maintenance system | C406.2.9 | 6 | 13 | 4 | 1 | NA | 6 |
| 22. High efficiency service hot water circulation system | C406.2.10 | 3 | 6 | 2 | 1 | NA | 4 |
| 23. Low flow residential showerheads | C406.2.11 | 3 | 3 | NA | NA | NA | NA |
| 24. Enhanced envelope performance ^g | C406.2.12 | 24 | 20 | 13 | 5 | 19 | 14 |
| 25. Base reduced air leakage ^g | C406.2.13.2 | 29 | 24 | 6 | 3 | 9 | 11 |
| 26. Enhanced reduced air leakage ^g | C406.2.13.3 | 53 | 44 | 11 | 5 | 16 | 20 |
| 27. Enhanced commercial kitchen equipment | C406.2.14 | 30 ^h | 18 ^h | 18 ^h | 30 ^h | 30 ^h | 31 ^h |

| Measure Title | Applicable Section | Occupancy Group | | | | | |
|--|--------------------|-----------------|-----------|---------|---------|---------|-----------|
| | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| 28. Enhanced residential kitchen equipment | C406.2.15 | 12 | 19 | NA | NA | NA | NA |
| 29. Enhanced residential laundry equipment | C406.2.16 | NA | 6 | NA | NA | NA | NA |
| 30. Heat pump clothes dryers | C406.2.17 | 6 | 6 | NA | NA | NA | NA |
| 31. Efficient elevator equipment | C406.2.18 | 3 | 5 | 5 | 5 | 4 | 4 |

- a Projects using Item 2 shall not use Items 3 through 5.
- b Projects using C406.2.2.5 shall not use C406.2.2.4.
- c For C406.2.2.6, occupancy Group A achieves 40 credits while other occupancy groups within the "all other" category achieve 21 credits.
- d Projects using C406.2.3.2 shall not use C406.2.3.1.
- e Service water heat recovery and heat pump water heating are available in Group M only for grocery stores larger than 10,000 ft². Large mixed retail with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of Section C403.9.2.3.
- f Heat pump water heating efficiency credits are available in the "all other" category only for Group A-2.
- g Buildings or building areas that are exempt from the thermal envelope requirements in accordance with Sections C402.1.1 and C402.1.2, do not qualify for this package.
- h Additional energy efficiency credits, up to the maximum shown in Table C406.2, shall be calculated according to Section C406.2.11.)

**TABLE C406.2 (1)
EFFICIENCY MEASURE CREDITS FOR HEAT PUMP PATHWAYS**

| Measure Title | Applicable Section | Prorating Flag | Occupancy Group | | | | | |
|---|--------------------|----------------|-----------------|-----------|-----------|-----------|-----------|-------------------------------|
| | | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| <u>1. Dwelling unit HVAC control</u> | <u>C406.2.1</u> | <u>Heat</u> | <u>NA</u> | <u>7</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>2. Improved HVAC TSPR^a</u> | <u>C406.2.2.1</u> | <u>Heat</u> | <u>NA</u> | <u>8</u> | <u>11</u> | <u>17</u> | <u>22</u> | <u>NA</u> |
| <u>3. Improve cooling and fan efficiency</u> | <u>C406.2.2.2</u> | <u>Heat</u> | <u>12</u> | <u>8</u> | <u>14</u> | <u>8</u> | <u>10</u> | <u>10</u> |
| <u>4. Improve heating efficiency</u> | <u>C406.2.2.3</u> | <u>Heat</u> | <u>1</u> | <u>1</u> | <u>3</u> | <u>1</u> | <u>4</u> | <u>2</u> |
| <u>5. Improved low-carbon district energy system (10% better)</u> | <u>C406.2.2.4</u> | | <u>3</u> | <u>3</u> | <u>4</u> | <u>11</u> | <u>17</u> | <u>8</u> |
| <u>6. Improved low-carbon district energy system (20% better)^b</u> | <u>C406.2.2.5</u> | | <u>9</u> | <u>10</u> | <u>12</u> | <u>33</u> | <u>52</u> | <u>24</u> |
| <u>7. High performance DOAS</u> | <u>C406.2.2.6</u> | <u>Heat</u> | <u>31</u> | <u>31</u> | <u>21</u> | <u>39</u> | <u>40</u> | <u>21/ (A) 40^c</u> |
| <u>8. Fault detection & diagnostics (FDD)</u> | <u>C406.2.2.7</u> | <u>Heat</u> | <u>2</u> | <u>2</u> | <u>2</u> | <u>6</u> | <u>9</u> | <u>4</u> |
| <u>9. 10% reduced lighting power</u> | <u>C406.2.3.1</u> | <u>Heat</u> | <u>7</u> | <u>4</u> | <u>18</u> | <u>16</u> | <u>20</u> | <u>15</u> |
| <u>10. 20% reduced lighting power^d</u> | <u>C406.2.3.2</u> | <u>Heat</u> | <u>13</u> | <u>8</u> | <u>36</u> | <u>32</u> | <u>40</u> | <u>29</u> |
| <u>11. Lamp efficacy improvement</u> | <u>C406.2.3.3</u> | <u>Heat</u> | <u>5</u> | <u>6</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>12. Residential lighting control</u> | <u>C406.2.4.1</u> | <u>Heat</u> | <u>NA</u> | <u>8</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>13. Enhanced lighting control</u> | <u>C406.2.4.2</u> | <u>Heat</u> | <u>1</u> | <u>1</u> | <u>6</u> | <u>6</u> | <u>11</u> | <u>6</u> |
| <u>14. Renewable energy</u> | <u>C406.2.5</u> | | <u>7</u> | <u>12</u> | <u>13</u> | <u>13</u> | <u>10</u> | <u>11</u> |
| <u>15. Shower drain heat recovery</u> | <u>C406.2.6.1</u> | <u>SWH</u> | <u>9</u> | <u>30</u> | <u>NA</u> | <u>3</u> | <u>NA</u> | <u>NA</u> |

| Measure Title | Applicable Section | Prorating Flag | Occupancy Group | | | | | |
|---|--------------------|----------------|-----------------|-----------------|-----------------|-----------------|----------------------------|------------------------|
| | | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| 16. Service water heat recovery | C406.2.6.2 | SWH | 35 | 111 | 13 | 14 | (Grocery) 41 ^e | NA |
| 17. Heat pump water heating (option 1) | C406.2.6.3 | SWH | TBD | TBD | TBD | TBD | (Grocery) TBD ^e | (A-2) TBD ^f |
| 18. Heat pump water heating (option 2) | C406.2.6.4 | SWH | 135 | 163 | 16 | 7 | 68 | 78 |
| 19. High efficiency service water heating, gas-fired | C406.2.6.5 | SWH | NA | NA | NA | NA | NA | NA |
| 20. High efficiency service water heating, gas heat pump | C406.2.6.6 | SWH | NA | NA | NA | NA | NA | NA |
| 21. Heat trace system | C406.2.7.1 | SWH | 6 | 13 | 4 | 1 | NA | 6 |
| 22. Point of use water heater | C406.2.7.2 | SWH | NA | NA | 10 | 3 | NA | NA |
| 23. Service hot water distribution right sizing | C406.2.8 | | 13 | 42 | NA | NA | NA | NA |
| 24. High performance service hot water temperature maintenance system | C406.2.9 | | 6 | 13 | 4 | 1 | NA | 6 |
| 25. High efficiency service hot water circulation system | C406.2.10 | | 3 | 6 | 2 | 1 | NA | 4 |
| 26. Low flow residential showerheads | C406.2.11 | SWH | 3 | 3 | NA | NA | NA | NA |
| 27. Enhanced envelope performance ^g | C406.2.12 | Heat | 24 | 20 | 13 | 5 | 19 | 14 |
| 28. Base reduced air leakage ^g | C406.2.13.2 | | 29 | 24 | 6 | 3 | 9 | 11 |
| 29. Enhanced reduced air leakage ^g | C406.2.13.3 | Heat | 53 | 44 | 11 | 5 | 16 | 20 |
| 30. Enhanced commercial kitchen equipment | C406.2.14 | Heat | 30 ^h | 18 ^h | 18 ^h | 30 ^h | 30 ^h | 31 ^h |
| 31. Enhanced residential kitchen equipment | C406.2.15 | Heat | 12 | 19 | NA | NA | NA | NA |
| 32. Enhanced residential laundry equipment | C406.2.16 | Heat | NA | 6 | NA | NA | NA | NA |
| 33. Heat pump clothes dryers | C406.2.17 | Heat | 6 | 6 | NA | NA | NA | NA |
| 34. Efficient elevator equipment | C406.2.18 | Heat | 3 | 5 | 5 | 5 | 4 | 4 |

^a Projects using Item 2 shall not use Items 3 through 5.

^b Projects using C406.2.2.5 shall not use C406.2.2.4.

^c For C406.2.2.6, occupancy Group A achieves 40 credits while other occupancy groups within the "all other" category achieve 21 credits.

^d Projects using C406.2.3.2 shall not use C406.2.3.1.

^e Service water heat recovery and heat pump water heating are available in Group M only for grocery stores larger than 10,000 ft². Large mixed retail with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of Section C403.9.2.3.

^f Heat pump water heating efficiency credits are available in the "all other" category only for Group A-2.

^g Buildings or building areas that are exempt from the thermal envelope requirements in accordance with Sections C402.1.1 and C402.1.2, do not qualify for this package.

^h Additional energy efficiency credits, up to the maximum shown in Table C406.2(1), shall be calculated according to Section C406.2.14.

TABLE C406.2 (2)
EFFICIENCY MEASURE CREDITS FOR FOSSIL FUEL PATHWAYS

| Measure Title | Applicable Section | Prorating Flag | Occupancy Group | | | | | |
|---|--------------------|----------------|-----------------|------------|------------|------------|----------------------------------|-------------------------------|
| | | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| <u>1. Dwelling unit HVAC control</u> | <u>C406.2.1</u> | <u>Heat</u> | <u>NA</u> | <u>14</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>2. Improved HVAC TSPR^a</u> | <u>C406.2.2.1</u> | <u>Heat</u> | <u>NA</u> | <u>10</u> | <u>14</u> | <u>22</u> | <u>29</u> | <u>NA</u> |
| <u>3. Improve cooling and fan efficiency</u> | <u>C406.2.2.2</u> | <u>Heat</u> | <u>10</u> | <u>6</u> | <u>12</u> | <u>8</u> | <u>8</u> | <u>9</u> |
| <u>4. Improve heating efficiency</u> | <u>C406.2.2.3</u> | <u>Heat</u> | <u>1</u> | <u>2</u> | <u>8</u> | <u>3</u> | <u>9</u> | <u>5</u> |
| <u>5. Improved low-carbon district energy system (10% better)</u> | <u>C406.2.2.4</u> | | <u>3</u> | <u>3</u> | <u>4</u> | <u>11</u> | <u>17</u> | <u>8</u> |
| <u>6. Improved low-carbon district energy system (20% better)^b</u> | <u>C406.2.2.5</u> | | <u>9</u> | <u>10</u> | <u>12</u> | <u>33</u> | <u>52</u> | <u>24</u> |
| <u>7. High performance DOAS</u> | <u>C406.2.2.6</u> | <u>Heat</u> | <u>40</u> | <u>40</u> | <u>27</u> | <u>51</u> | <u>52</u> | <u>27/ (A) 52^c</u> |
| <u>8. Fault detection & diagnostics (FDD)</u> | <u>C406.2.2.7</u> | <u>Heat</u> | <u>3</u> | <u>3</u> | <u>3</u> | <u>8</u> | <u>12</u> | <u>5</u> |
| <u>9. 10% reduced lighting power</u> | <u>C406.2.3.1</u> | <u>Heat</u> | <u>6</u> | <u>3</u> | <u>15</u> | <u>14</u> | <u>17</u> | <u>13</u> |
| <u>10. 20% reduced lighting power^d</u> | <u>C406.2.3.2</u> | <u>Heat</u> | <u>11</u> | <u>7</u> | <u>31</u> | <u>27</u> | <u>34</u> | <u>25</u> |
| <u>11. Lamp efficacy improvement</u> | <u>C406.2.3.3</u> | <u>Heat</u> | <u>4</u> | <u>5</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>12. Residential lighting control</u> | <u>C406.2.4.1</u> | <u>Heat</u> | <u>NA</u> | <u>7</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>13. Enhanced lighting control</u> | <u>C406.2.4.2</u> | <u>Heat</u> | <u>1</u> | <u>1</u> | <u>5</u> | <u>5</u> | <u>9</u> | <u>5</u> |
| <u>14. Renewable energy</u> | <u>C406.2.5</u> | | <u>7</u> | <u>12</u> | <u>13</u> | <u>13</u> | <u>10</u> | <u>11</u> |
| <u>15. Shower drain heat recovery</u> | <u>C406.2.6.1</u> | <u>SWH</u> | <u>23</u> | <u>75</u> | <u>NA</u> | <u>8</u> | <u>NA</u> | <u>NA</u> |
| <u>16. Service water heat recovery</u> | <u>C406.2.6.2</u> | <u>SWH</u> | <u>88</u> | <u>278</u> | <u>33</u> | <u>35</u> | <u>(Grocery) 103^e</u> | <u>NA</u> |
| <u>17. Heat pump water heating (option 1)</u> | <u>C406.2.6.3</u> | <u>SWH</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>18. Heat pump water heating (option 2)</u> | <u>C406.2.6.4</u> | <u>SWH</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>19. High efficiency service water heating, gas-fired</u> | <u>C406.2.6.5</u> | <u>SWH</u> | <u>59</u> | <u>65</u> | <u>6</u> | <u>11</u> | <u>18</u> | <u>32</u> |
| <u>20. High efficiency service water heating, gas heat pump</u> | <u>C406.2.6.6</u> | <u>SWH</u> | <u>TBD</u> | <u>TBD</u> | <u>TBD</u> | <u>TBD</u> | <u>TBD</u> | <u>TBD</u> |
| <u>21. Heat trace system</u> | <u>C406.2.7.1</u> | <u>SWH</u> | <u>15</u> | <u>33</u> | <u>10</u> | <u>3</u> | <u>NA</u> | <u>15</u> |
| <u>22. Point of use water heater</u> | <u>C406.2.7.2</u> | <u>SWH</u> | <u>NA</u> | <u>NA</u> | <u>25</u> | <u>8</u> | <u>NA</u> | <u>NA</u> |
| <u>23. Service hot water distribution right sizing</u> | <u>C406.2.8</u> | | <u>13</u> | <u>42</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>24. High performance service hot water temperature maintenance system</u> | <u>C406.2.9</u> | | <u>6</u> | <u>13</u> | <u>4</u> | <u>1</u> | <u>NA</u> | <u>6</u> |
| <u>25. High efficiency service hot water circulation system</u> | <u>C406.2.10</u> | | <u>3</u> | <u>6</u> | <u>2</u> | <u>1</u> | <u>NA</u> | <u>4</u> |

| Measure Title | Applicable Section | Prorating Flag | Occupancy Group | | | | | |
|--|--------------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | Group R-1 | Group R-2 | Group B | Group E | Group M | All Other |
| <u>26. Low flow residential showerheads</u> | <u>C406.2.11</u> | <u>SWH</u> | <u>8</u> | <u>8</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>27. Enhanced envelope performance^g</u> | <u>C406.2.12</u> | <u>Heat</u> | <u>31</u> | <u>26</u> | <u>17</u> | <u>7</u> | <u>25</u> | <u>18</u> |
| <u>28. Base reduced air leakage^g</u> | <u>C406.2.13.2</u> | | <u>29</u> | <u>24</u> | <u>6</u> | <u>3</u> | <u>9</u> | <u>11</u> |
| <u>29. Enhanced reduced air leakage^g</u> | <u>C406.2.13.3</u> | <u>Heat</u> | <u>53</u> | <u>44</u> | <u>11</u> | <u>5</u> | <u>16</u> | <u>20</u> |
| <u>30. Enhanced commercial kitchen equipment</u> | <u>C406.2.14</u> | <u>Heat</u> | <u>26^h</u> | <u>15^h</u> | <u>15^h</u> | <u>26^h</u> | <u>26^h</u> | <u>26^h</u> |
| <u>31. Enhanced residential kitchen equipment</u> | <u>C406.2.15</u> | <u>Heat</u> | <u>10</u> | <u>16</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>32. Enhanced residential laundry equipment</u> | <u>C406.2.16</u> | <u>Heat</u> | <u>NA</u> | <u>5</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>33. Heat pump clothes dryers</u> | <u>C406.2.17</u> | <u>Heat</u> | <u>5</u> | <u>5</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>34. Efficient elevator equipment</u> | <u>C406.2.18</u> | <u>Heat</u> | <u>3</u> | <u>4</u> | <u>4</u> | <u>4</u> | <u>3</u> | <u>3</u> |

^a Projects using Item 2 shall not use Items 3 through 5.

^b Projects using C406.2.2.5 shall not use C406.2.2.4.

^c For C406.2.2.6, occupancy Group A achieves 40 credits while other occupancy groups within the "all other" category achieve 21 credits.

^d Projects using C406.2.3.2 shall not use C406.2.3.1.

^e Service water heat recovery and heat pump water heating are available in Group M only for grocery stores larger than 10,000 ft². Large mixed retail with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of Section C403.9.2.3.

^f Heat pump water heating efficiency credits are available in the "all other" category only for Group A-2.

^g Buildings or building areas that are exempt from the thermal envelope requirements in accordance with Sections C402.1.1 and C402.1.2, do not qualify for this package.

^h Additional energy efficiency credits, up to the maximum shown in Table C406.2(2), shall be calculated according to Section C406.2.14.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40620, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40622 Section C406.2.2—HVAC measures.

C406.2.2 More efficient HVAC system performance. All heating and cooling systems shall meet the minimum requirements of Section C403 and efficiency improvements shall be referenced to the minimum efficiency requirements listed in the tables in Section C403.3.2. Where multiple efficiency requirements are listed, equipment shall meet the seasonal efficiencies including SEER, EER/IEER, IPLV or AFUE. Equipment that is larger than the maximum capacity range indicated in the tables in Section C403.3.2 shall utilize the values listed for the largest capacity equipment for the associated equipment type shown in the table. Where multiple individual heating or cooling systems serve the project, the improvement shall be the weighted average improvement based on individual system capacity.

For occupancies and systems required to comply with Section C403.1.1, credits are permitted to be achieved by meeting the requirements of Section C406.2.2.1. Other systems are permitted to achieve credits by meeting the requirements of either:

1. Section C406.2.2.2, More efficient HVAC equipment cooling and fan performance.
2. Section C406.2.2.3, More efficient HVAC equipment heating performance.
3. Section C406.2.2.4, High performance dedicated outdoor air system (DOAS).
4. Any combination of Sections C406.2.2.2, C406.2.2.3, and C406.2.2.4.

In addition, energy credits are permitted to be achieved for Section C406.2.2.7, Fault detection and diagnostics, where not otherwise required by Section C403.2.3 or C403.6.10(15).

C406.2.2.1 Improved HVAC TSPR. For systems required to comply with Section C403.1.1, the *HVAC TSPR* shall exceed the minimum requirement by five percent. If improvement is greater, the credits in Table C406.2(1) or Table C406.2(2) are permitted to be prorated up to a 20 percent improvement.

C406.2.2.2 More efficient HVAC equipment cooling and fan performance. No less than 90 percent of the total HVAC capacity serving the total *conditioned floor area* of the entire building, building addition or tenant space in accordance with Section C406.1.1 shall comply with Sections C406.2.2.2.1 through C406.2.2.2.3. Where individual equipment efficiencies vary, weigh them based on capacity.

C406.2.2.2.1 HVAC system selection. Equipment installed shall be types that are listed in the tables in Section C403.3.2.

C406.2.2.2.2 Cooling equipment efficiency. Equipment shall exceed the minimum cooling efficiency requirements listed in the tables in Section C403.3.2 by at least 5 percent. Where equipment exceeds the minimum annual cooling efficiency and heat rejection efficiency requirements by more than 5 percent, energy efficiency credits for cooling shall be determined using Equation 4-15, rounded to the nearest whole number.

(Equation 4-15)

$$EEC_{HEC} = EEC_5 \times \left[1 + \frac{CEI - 0.05}{0.05} \right]$$

Where:

- EEC_{HEC} = Energy efficiency credits for cooling efficiency improvement.
- EEC₅ = Section C406.2.2.2 credits from Table C406.2(1) or Table C406.2(2).

CEI = The lesser of the improvement above minimum cooling efficiency requirements, minimum heat rejection efficiency requirements, or 20 percent (0.20). Where cooling efficiency varies by system, use the capacity weighted average efficiency improvement for all cooling equipment combined. The CEI expressed as a fraction shall be determined one of the following ways:

For metrics that increase as efficiency increases, CEI shall be calculated as follows:

$$CEI = \frac{CM_{DES}}{CM_{MIN}} - 1$$

For metrics that decrease as efficiency increases, CEI shall be calculated as follows:

$$CEI = \frac{CM_{MIN}}{CM_{DES}} - 1$$

Where:

CM_{DES} = Design cooling efficiency metric, part-load or annualized where available.

CM_{MIN} = Minimum required cooling efficiency metric, part-load or annualized where available from Section C403.3.2.

For data centers using ASHRAE 90.4, CEI shall be calculated as follows:

$$CEI = \frac{AMLC_{MAX}}{AMLC_{DES}} - 1$$

Where:

AMLC_{DES} = As-designed annualized mechanical load component calculated in accordance with ASHRAE 90.4 Section 6.5.

AMLC_{MAX} = Maximum annualized mechanical load component from ASHRAE 90.4 Table 6.5.

C406.2.2.2.3 Minimum fan efficiency. Where fan energy is not included in packaged equipment rating or it is and the fan size has been increased from the as-rated equipment condition, fan power or horsepower shall be less than 95 percent of the allowed fan power in Section C403.8.1.

C406.2.2.3 More efficient HVAC equipment heating performance. No less than 90 percent of the total HVAC capacity serving the total conditioned floor area of the entire building, building addition or tenant space in accordance with Section C406.1.1 shall comply with Sections C406.2.2.3.1 through C406.2.2.3.2.

C406.2.2.3.1 HVAC system selection. Equipment installed shall be types that are listed in the tables in Section C403.3.2. Electric resistance heating shall be limited to 20 percent of system capacity, with the exception of heat pump supplemental heating.

C406.2.2.3.2 Heating equipment efficiency. Equipment shall exceed the minimum heating efficiency requirements of the tables in Section C403.3.2 by at least 5 percent. Where equipment exceeds the minimum annual heating efficiency requirements by more than 5 percent, energy efficiency credits for heating shall be determined using Equation 4-16, rounded to the nearest whole number.

(Equation 4-16)

$$EEC_{HEH} = EEC_5 \times \left[1 + \frac{HEI - 0.05}{0.05} \right]$$

Where:

- EEC_{HEH} = Energy efficiency credits for heating efficiency improvement.
- EEC_5 = Section C406.2.2.2 credits from Table C406.2(1) or Table C406.2(2).
- HEI = The lesser of the improvement above minimum heating efficiency requirements or 20 percent (0.20). Where heating efficiency varies by system, use the capacity weighted average percentage for all heating equipment combined. For metrics that increase as efficiency increases, HEI shall be calculated as follows:

$$HEI = \frac{HM_{DES}}{HM_{MIN}} - 1$$

Where:

- HM_{DES} = Design heating efficiency metric, part-load or annualized where available.
- HM_{MIN} = Minimum required heating efficiency metric, part-load or annualized where available from Section C403.3.2.

EXCEPTION: In low energy spaces complying with Section C402.1.1 and *semi-heated spaces* complying with Section C402.1.1.2, no less than 90 percent of the installed heating capacity is provided by electric infrared or gas-fired radiant heating equipment for localized heating applications. Such spaces shall achieve credits for EEC_5 .

C406.2.2.4 Improved low-carbon district energy systems (10 percent better). Not less than 90 percent of the annual service hot water and space heating load, or not less than 90 percent of the annual service hot water, space heating, and space cooling load shall meet the criteria of Section C406.2.2.4.1 or C406.2.2.4.2.

Documentation for the low-carbon district system that is operational prior to the final inspection shall be provided to demonstrate that the definition as modified in Section C406.2.2.4.1 or C406.2.2.4.2 of *low-carbon district energy exchange system* is satisfied.

C406.2.2.4.1 Improved low-carbon district energy exchange systems (10 percent better). Low-carbon district energy exchange systems must demonstrate the following:

1. Forty-five percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat, or renewable energy resources; and
2. No more than 25 percent of the annual heat input to the system comes from fossil fuel or electric-resistance sources.

C406.2.2.4.2 Improved low-carbon district energy heating and cooling or heating only systems (10 percent better). Distribution losses must be accounted for and may not exceed 5 percent of the annual load delivered to buildings served by the system. *Low-carbon district energy heating and cooling or heating only systems* must demonstrate the following:

1. Forty-five percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat, or renewable energy resources and no more than 25 percent of the annual heat input to the system comes from fossil fuel or electric-resistance sources; or
2. No more than 10 percent of the system annual heat input to the system comes from fossil fuels or electric-resistance sources. The remaining annual heat input must be provided using heat pump technology with a minimum annual operating COP of 3.0.

C406.2.2.5 Improved low-carbon district energy systems (20 percent better). Not less than 90 percent of the annual service hot water and space heating load, or not less than 90 percent of the annual service hot water, space heating, and space cooling load shall meet the criteria of Section C406.2.2.5.1 or C406.2.2.5.2.

Documentation for the low-carbon district system that is operational prior to the final inspection shall be provided to demonstrate that the definition as modified in Section C406.2.2.4.1 or C406.2.2.4.2 of *low-carbon district energy exchange system* is satisfied.

C406.2.2.5.1 Improved low-carbon district energy exchange systems (20 percent better). Low-carbon district energy exchange systems must demonstrate the following:

1. Fifty percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat, or renewable energy resources; and
2. No more than 10 percent of the annual heat input to the system comes from fossil fuel or electric-resistance sources.

C406.2.2.5.2 Improved low-carbon district energy heating and cooling or heating only systems (20 percent better). Distribution losses must be accounted for and may not exceed 5 percent of the annual load delivered to buildings served by the system. *Low-carbon district energy heating and cooling or heating only systems* must demonstrate the following:

1. Fifty percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat, or renewable energy resources and no more than 10 percent of the annual heat

input to the system comes from fossil fuel or electric-resistance sources; or

2. No more than 10 percent of the system annual heat input to the system comes from fossil fuels or electric-resistance sources. The remaining annual heat input must be provided using heat pump technology with a minimum annual operating COP of 4.0.

C406.2.2.6 High performance dedicated outdoor air system (DOAS). No less than 90 percent of the total conditioned floor area of the whole project, excluding floor area of unoccupied spaces that do not require ventilation as specified by the *International Mechanical Code*, shall be served by DOAS installed in accordance with Section C403.3.5 with the following adjustments:

1. Minimum heat recovery sensible effectiveness of 80 percent, calculated in accordance with Section C403.3.5.1.

2. Where design outdoor airflow is greater than 500 cfm (250 L/s), the DOAS shall be equipped with an economizer bypass, damper control, or wheel speed control that is active between 55°F (13°C) and 75°F (24°C) outdoor air temperature and minimizes energy recovery or maintains an appropriate DOAS leaving air temperature when the building is generally in cooling, based either on outdoor air temperature or a DDC zone-based cooling system reset.

3. DOAS total combined fan power shall be less than either:

3.1. 0.769 W/cfm (1.55 W/L/s) when calculated in accordance with Section C403.3.5.2.

3.2. Eighty percent of fan power allowance for a constant volume system when calculated in accordance with Section C406.8.1.

This option is not available to areas served by systems utilizing Section C403.2.2.1 exception 5.

C406.2.2.7 Fault detection and diagnostics system. A project not required to comply with Section C403.2.3 or C403.6.10(16) shall achieve energy credits for installing a fault detection and diagnostics system to monitor the HVAC system's performance and automatically identify faults. The installed system shall comply with items 1 through 6 in Section C403.2.3.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40622, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40623 Section C406.2.3—Lighting measures.

C406.2.3 Reduced lighting power. Interior lighting within the whole project shall achieve credits by complying with Section C406.2.3.1 or C406.2.3.2. In Group R-1 and Group R-2 occupancies, dwelling and sleeping units shall comply with Section C406.2.3.3 and all other areas shall comply with section C406.2.3.1 or C406.2.3.2. Credits apply to the whole Group R-1 or Group R-2 area.

C406.2.3.1 Reduced lighting power option 1. The total connected interior lighting power calculated in accordance with Section C405.4.1 shall be 90 percent or less of the lighting power values specified in Table C405.4.2(1) times the floor area for the building types, or 90 percent or less of the total interior lighting power allowance calculated in accordance with Section C405.4.2.

C406.2.3.2 Reduced lighting power option 2. The total connected interior lighting power calculated in accordance with Section C405.4.1 shall be 80 percent or less of the lighting power values specified in Table C405.4.2(1) times the floor area of the building types, or 80 percent or less of the total interior lighting power allowance calculated in accordance with Section C405.4.2.

C406.2.3.3 Lamp efficacy. No less than 95 percent of the permanently installed light fixtures in dwelling units and sleeping units shall be provided by lamps with a minimum efficacy of 90 lumens per watt.

C406.2.4 Lighting controls. For buildings with nontransient *dwelling units* and *sleeping units*, energy credits shall be achieved by installation of systems that comply with the requirements of Section C406.2.4.1. All other buildings shall achieve energy credits by complying with Section C406.2.4.2. For buildings with mixed occupancies, credits shall be prorated based on floor area.

C406.2.4.1 Residential building lighting control. In buildings with nontransient dwelling units and sleeping units, lighting controls shall be configured to meet the following:

1. Each *dwelling unit* or *sleeping unit* shall have a main control by the main entrance that turns off all the lights and switched receptacles in the unit. The main control shall be permitted to have two controls, one for permanently wired lighting and one for switched receptacles. The main controls shall be clearly identified as "lights master off" and "switched outlets master off."

2. Switched receptacles shall be clearly identified and all switched receptacles shall be located within 12 inches of an unswitched receptacle. Each room shall have a minimum of two switched receptacles except bathrooms, kitchens, and closets.

C406.2.4.2 Enhanced digital lighting controls. Measure credits shall be achieved where no less than 50 percent of the gross floor area within the project has luminaires and lighting controls that include high end trim in compliance with Section C405.2.8.3 and either *luminaire-level lighting controls* in compliance with Section C405.2.8.1 or networked lighting controls in accordance with Section C405.2.8.2. Where *general lighting* in more than 50 percent of the gross floor area complies, the base credits from Table C406.2(1) or Table C406.2(2) shall be prorated as follows:

$$[\text{Floor area with high end trim, \%}] \times [\text{Base energy credits for C406.2.4.2}] / 50\%$$

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40623, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40624 Section C406.2.5—Renewable energy measures.

C406.2.5 On-site and off-site renewable energy. Projects installing on-site or off-site renewable energy systems with a capacity of at least 0.1 watts per gross square foot (1.08 W/m²) of building area in addition to the renewable energy capacity required elsewhere in this code shall achieve energy credits for this measure. Renewable energy systems achieving energy credits shall not be used to satisfy other requirements of this code. Off-site renewable energy systems shall comply with Sections C411.2.2 and C411.2.3. Credits shall be prorated from the table value in accordance with Equation 4-17.

(Equation 4-17)

$$AEC_{RRa} = AEC_b \times \frac{\sum(REF \times RR_t) - RR_r}{RR_b \times PGFA}$$

Where:

AEC_{RRa} = Section C406.2.5 achieved energy credits for this project as calculated in accordance with Equation 4-17, limited to 50 percent of the required credits in Section C406.1.

Exception: Up to 80 percent of the additional efficiency credits required by Table C406.1.3.1 and Table C406.1.3.2 are permitted to be renewable energy credits defined in Section C406.2.5.

RR_t = Actual total rating of on-site and off-site renewable energy systems (W) for each type of renewable energy source in Table C411.2.1.

RR_r = Rating of renewable energy systems required by Section C411.1, other sections in this code, or used to qualify for exceptions in this code (W).

RR_b = 0.1 W/square foot (1.08 W/m²)

PGFA = Project gross floor area, square feet (m²).

AEC_{0.1} = Section C406.2.5 base credits from Table C406.2(1) or Table C406.2(2).

REF = Renewable Energy Factor from Table C411.2.1.

Informative Note: On-site renewable energy may include thermal service water heating or pool water heating, in which case ratings in Btu/h can be converted to W where W = Btu/h / 3.413.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40624, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-40625 Section C406.2.6—Service water measures.

C406.2.6 Reduced energy use in service water heating. Buildings with service hot water heating equipment that serves the whole building, building addition or tenant space shall achieve credits through compliance with:

1. Section C406.2.6.1, C406.2.6.2, ~~((or))~~ C406.2.6.3, or C406.2.6.4.
2. Sections C406.2.6.1 and C406.2.6.2.
3. Sections C406.2.6.1 and C406.2.6.3.

C406.2.6.1 Shower drain heat recovery. Shower drain heat recovery units shall comply with Section C404.10 and preheat cold water supply to the showers. Potable waterside pressure loss shall be less than 10 psi (69 kPa) at maximum design flow. The efficiency of drain water heat recovery units shall be 54 percent in accordance with CSA B55.1. Full credits are applicable to the following building use types: Multi-family, hotel, motel, dormitory, and schools with locker room showers. Where not all showers in the project have drain heat recovery, the credit is adjusted based on the following:

$$[\text{Section C406.2.6.1 table credits}] \times [\text{Showers with drain recovery}] / [\text{Total number of showers}]$$

C406.2.6.2 Service water heating energy recovery. Not less than 30 percent of the annual service hot water heating energy use, or not less than 70 percent of the annual service hot water heating energy use in buildings with condenser water systems subject to the requirements of Section C403.9.2.1 or qualifying for one of its exceptions, shall be provided by one or more of the following:

1. Waste heat recovery from service hot water, heat recovery chillers, building equipment, process equipment, or other *approved* system. Qualifying heat recovery must be above and beyond heat recovery required by other sections of this code.
2. On-site renewable energy water-heating systems where not used to meet other requirements or to obtain other energy credits.

C406.2.6.3 Heat pump service water heating (Option 1). Projects shall achieve credits through compliance with Section C406.2.6.3.1.

C406.2.6.3.1 Heat pump water heater. Credit shall be achieved where service hot water system capacity is 82,000 Btu/h (24kW) or less and is served using heat pump technology with no more than 4.5 kW of resistance supplemental heating and meets one of the following:

1. The COP rating shall be a minimum COP of 3.0 reported at the design leaving heat pump water temperature with an entering air temperature of 60°F (16°C) or lower. For water-source equipment, the COP rating will be reported at the design leaving load water temperature with an entering load water temperature of 74°F (23°C) or lower.
2. The uniform energy factor (UEF) shall be a minimum of 3.40 rated based on U.S. Department of Energy requirements.

C406.2.6.4 Heat pump water heating (Option 2). Projects shall achieve credits through compliance with Section C406.2.6.4.1.

C406.2.6.4.1 Heat pump water heater. Credit shall be achieved where service hot water system meets one of the following:

1. The COP rating shall be a minimum COP of 3.0 reported at the design leaving heat pump water temperature with an entering air temperature of 60°F (16°C) or lower. For water-source equipment, the COP rating will be reported at the design leaving load water temperature with an entering load water temperature of 74°F (23°C) or lower.

2. The uniform energy factor (UEF) shall be a minimum of 3.40 rated based on U.S. Department of Energy requirements.

C406.2.6.5 High efficiency service water heating, gas-fired. The credit achieved shall be from Table C406.2(2) where hot water is supplied by gas-fired equipment with minimum efficiency of 0.91 UEF.

C406.2.6.6 High efficiency service water heating, gas heat pump. The credit achieved shall be from Table C406.2(2) where hot water is supplied by gas-fired equipment with minimum efficiency of 1.29 UEF.

C406.2.7 Improved service hot water temperature maintenance. For buildings with gross floor area greater than 10,000 square feet, credit shall be achieved when hot water temperature maintenance is installed in accordance with Section C406.2.7.1 or C406.2.7.2.

C406.2.7.1 Self-regulated heat trace system. The credit achieved shall be from Table C406.2(1) or Table C406.2(2). This system shall include self-regulating electric heat cables, connection kits and electronic controls. The cable shall be installed directly on the hot water supply pipes underneath the insulation to replace standby losses.

C406.2.7.2. Point of use water heater. The credit achieved shall be from Table C406.2 where any fixtures requiring hot water shall be supplied from a localized electric source of hot water with no recirculation or heat trace and limited to 2 kW and 6 gallons of storage. The supply pipe length from the point of use water heater to the termination of the fixture supply pipe shall be no more than 20 feet.

C406.2.8 Service hot water distribution right sizing. To achieve this credit, where Group R-1 and R-2 occupancies are served by a central service hot water system, the distribution system serving *dwelling units, sleeping units* and guestrooms shall be sized using Appendix M of the *Uniform Plumbing Code*.

C406.2.9 High performance service hot water temperature maintenance system. Systems with multiple riser service hot water circulation systems shall use only heat pump technology for temperature maintenance. The heat pump technology shall have a minimum COP of 3.0 or UEF of 3.4. For air-source equipment, the COP rating will be reported at the design leaving heat pump water temperature with an entering dry bulb air temperature of 60°F (16°C) or lower and a relative humidity of 50 percent or lower. For water-source equipment, the COP rating will be reported at the design leaving load side water temperature with an entering source side water temperature of 74°F (23°C) or lower. The system shall comply with the requirements of Section C404.7.1.

C406.2.10 High efficiency service hot water circulation system. Multiple riser service hot water circulation systems shall use a variable volume circulation pump controlled to vary the pump speed based on system demand and shall include self-actuated thermostatic balancing valves to control the system flow at each riser.

C406.2.11 Low flow showerheads for Group R-1 and R-2 occupancies. All showerheads installed in Group R-1 and R-2 *dwelling units* or *sleeping units* shall have a maximum listed flowrate of 1.25 gallons per minute

or less at 80 psi operating pressure for fixed showerheads and a maximum listed flowrate of 1.50 gallons per minute or less at 80 psi operating pressure for handheld showerheads. When a shower is served by more than one showerhead, including handheld showerheads, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.25 gallons per minute or less for fixed or 1.5 gallons per minute or less for handheld, or the shower shall be designed to allow only one shower outlet to be in operation at a time.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40625, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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WAC 51-11C-40627 Section C406.2—Other measures.

C406.2.14 Enhanced commercial kitchen equipment. For buildings or areas designated as Group A-2, or facilities whose primary business type involves the use of a commercial kitchen with at least one gas or electric fryer, all fryers, dishwashers, steam cookers and ovens shall comply with all of the following:

1. Achieve the ENERGY STAR label in accordance with the specifications current as of January 1, 2022.
2. Be installed prior to the issuance of the certificate of occupancy.
3. Have the ENERGY STAR qualified model number listed on the construction documents submitted for permitting.

Energy efficiency credits for efficient commercial kitchen equipment shall be determined based on Equation 4-19, rounded to the nearest whole number.

(Equation 4-19)

$$AEEC_K = 20 \times \frac{\text{Area}_K}{\text{Area}_B}$$

Where:

- $AEEC_K$ = Section C406.2.14 table credits, to a maximum of those allowed in Table C406.2(1) or Table C406.2(2) for this option.
- Area_K = Floor area of full-service kitchen (ft² or m²).
- Area_B = Gross floor area of building (ft² or m²).

C406.2.15 Residential kitchen equipment. For projects with Group R-1 and R-2 occupancies, energy credits shall be achieved where not less

than 90 percent of dishwashers, refrigerators, and freezers comply with all of the following:

1. Achieve the ENERGY STAR Most Efficient label in accordance with the 2021 specifications.
2. Be installed prior to the issuance of the certificate of occupancy.

For Group R-1 where only some guestrooms are equipped with both refrigerators and dishwashers, the table credits shall be prorated as follows:

$$[\text{Section C406.2.15 table credits}] \times [\text{Floor area of guestrooms with kitchens}] / [\text{Total guestroom floor area}]$$

C406.2.16 Residential laundry appliances. For projects with Group R-2 occupancies, energy credits shall be achieved where not less than 90 percent of clothes washers and dryers in the project meet the following requirements:

1. Each dwelling unit contains in-unit washing washer and dryer equipment that meets the following requirements:
 - 1.1. Achieve the ENERGY STAR Most Efficient label in accordance with the 2021 specifications.
 - 1.2. Be installed prior to the issuance of the certificate of occupancy.
2. Where only some dwelling units are equipped with both washers and dryers, the table credits shall be prorated as follows:

$$[\text{Section C406.2.16 table credits}] \times [\text{Floor area of dwelling units with laundry}] / [\text{Total dwelling unit floor area}]$$

C406.2.17 Heat pump clothes dryers. Not less than 90 percent of domestic clothes dryers located in Group R-1 and R-2 of the whole project are ENERGY STAR rated heat pump dryers. Credit applies only to buildings where laundry facilities are provided either within each residential dwelling or sleeping units or grouped together in central multi-family use laundry rooms, or a mix of the two.

To claim this credit, the building permit drawings shall specify the appliance type and provide documentation of ENERGY STAR compliance. At the time of inspection, all appliances shall be installed and connected to utilities.

C406.2.18 Efficient elevator equipment. Qualifying elevators in the building shall be Energy Efficient Class A in accordance with ISO 25745-2, Table 7. Only buildings three or more floors above grade shall be permitted to use this credit. Credits shall be prorated based on Equation 4-18, rounded to the nearest whole credit. Projects with a compliance ratio (CR_e in Equation 4-18) below 0.5 do not qualify for this credit.

(Equation 4-18)

$$EC_e = EC_t \times CR_e$$

Where:

- EC_e = Elevator energy credit achieved for building.
- EC_t = Section C406.2.18 table energy credit.
- $CR_e = \frac{F_A}{F_B}$
- F_A = Sum of floors served by Class A elevators.

F_B = Sum of floors served by all building elevators and escalators.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40627, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

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WAC 51-11C-40702 Section C407.2—Mandatory requirements.

C407.2 Mandatory requirements. Compliance with Section C407 also requires compliance with those sections shown in Table C407.2.

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 in the baseline in accordance with ANSI/ASHRAE/IESNA 90.1 Appendix G and in the proposed model in accordance with the requirements of the Washington State Energy Code.

**Table C407.2
Mandatory Compliance Measures for
Total Building Performance Method**

| Section ^a | Title | Comments |
|-----------------------|--|----------|
| Envelope | | |
| C401 | Thermal envelope certificate | |
| C402.2.7 | Airspaces | |
| C402.5 | Air leakage | |
| Mechanical | | |
| C403.1.2 | Calculation of heating and cooling loads | |
| C403.1.3 | Data centers | |
| ((C403.1.4 | Use of electric resistance and fossil fuel-fired HVAC heating equipment)) | |
| C403.2 | System design | |

| Section ^a | Title | Comments |
|--------------------------------|---|--------------------------------------|
| C403.3.1 | Equipment and system sizing | |
| C403.3.2 | HVAC equipment performance requirements | |
| C403.3.3 | Hot gas bypass limitation | |
| C403.3.4.4 | Boiler turndown | |
| (C403.3.6) | Ventilation for Group R-occupancy | |
| C403.4.1 | Thermostatic controls | |
| C403.4.2 | Off-hour controls | |
| C403.4.7 | Combustion heating equipment controls | |
| C403.4.8 | Group R-1 hotel/motel guestrooms | See Section C403.7.4 |
| C403.4.9 | Group R-2 and R-3 dwelling units | |
| C403.4.10 | Group R-2 sleeping units | |
| C403.4.11 | Direct digital control systems | |
| C403.5.5 | Economizer fault detection and diagnostics (FDD) | |
| C403.7 | Ventilation and exhaust systems | Except for C403.7.6.2 |
| C403.8 | Fan and fan controls | |
| C403.9.1.1 | Variable flow controls | For cooling tower fans ≥ 7.5 hp |
| C403.9.1.2 | Limitation on centrifugal fan cooling towers | For open cooling towers |
| C403.10 | Construction of HVAC elements | |
| C403.11 | Mechanical systems located outside of the building thermal envelope | |
| C403.14 | Commissioning | |
| Service Water Heating | | |
| C404 | Service water heating | Except for C404.2.1 |
| Lighting and Electrical | | |
| C405 | Electrical power and lighting systems | |
| Other Requirements | | |
| C407 | Total building performance | |
| C408 | System commissioning | |
| C409 | Energy metering | |

| Section ^a | Title | Comments |
|----------------------|----------------------------|----------|
| C410 | Refrigeration requirements | |
| C411 ^b | Renewable energy | |
| C412 | Compressed air systems | |

^a Reference to a code section includes all the relative subsections except as indicated in the table.

^b Compliance with any of these sections includes compliance with any exception to that section.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40702, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-40702, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40702, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40702, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40702, filed 2/1/13, effective 7/1/13.]

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WAC 51-11C-40703 Section C407.3—Performance-based compliance.

C407.3 Performance-based compliance. Compliance with this section requires compliance with ASHRAE Standard 90.1 Appendix G, Performance Rating Method, in accordance with Standard 90.1 Section 4.2.1 with the following modifications:

1. The mandatory requirements of the Washington State Energy Code are required to be met, instead of those of Section G1.2.1a of ANSI/ASHRAE/IESNA 90.1.

2. Compliance with Section C407 requires meeting both (~~(an emissions and)~~) a regulated site energy target and a total site energy reduction target in accordance with the following:

2.1. (~~(Carbon emissions)~~) Regulated site energy target. The (~~(carbon emissions)~~) regulated site energy target is focused on regulated load energy efficiency, thus shall be met only via regulated load savings without consideration of the contribution of on-site or off-site renewable energy or unregulated load savings. Adjustments to the PCI, to account for the contribution of renewable energy found in ANSI/ASHRAE/IESNA 90.1 Section 4.2.1.1 shall not be used. References to energy cost in Section 4.2.1.1 and Appendix G shall be replaced by (~~(carbon emissions calculated by multiplying site energy consumption by the carbon emission factor from Table C407.3(1))~~) site energy use. Heating or cooling energy provided by a district energy system may utilize coefficient of performance (COP) ratios acceptable to the code official for the respective district energy sources. The building per-

formance factors in Table 4.2.1.1 of ANSI/ASHRAE/IESNA 90.1 shall be replaced with those in Table C407.3(2).

2.2. Total site energy target. The total site energy performance target shall be met including the contributions of on-site or off-site renewable energy as described in Section C411.2 as well as the contributions of improvements in unregulated loads as allowed by Section C407.3.4. The annual on-site and off-site renewable energy production (as adjusted by the factors in Table C411.2.1) shall be subtracted from the proposed building annual site energy use. Compliance with the site energy performance target requires that the proposed building site energy use/baseline building site energy use is less than or equal to the site energy performance target from Table C407.3(3).

3. Documentation requirements in Section G1.3.2.d shall be replaced by a list showing compliance with the mandatory provisions of Table C407.2.

4. Forms demonstrating compliance with Appendix G developed by the U.S. Department of Energy shall be completed and submitted to the *code official*. The forms are available at energycodes.gov/ashrae-standard-901-performance-based-compliance-form.

5. References to yet-to-be-designed future building components in the Proposed Building Performance column of Table G3.1 shall be modified to reference the corresponding sections of the Washington State Energy Code in lieu of the requirements of ANSI/ASHRAE/IESNA 90.1 in the following sections of the table:

5.1. No. 1, Design Model, subclause c.

5.2. No. 6, Lighting, subclause c.

5.3. No. 11, Service Water Heating System, subclause c.

5.4. No. 12, Receptacle and Other Loads, subclause b.

6. HVAC systems, subclauses c and d of Table G3.1, shall meet the following requirements:

6.1. For yet-to-be-designed systems in office, retail, library, education, and multifamily buildings and occupancies subject to the TSPR requirements of Section C403.1.1, the system type and efficiency parameters in the proposed model shall meet but not exceed those shown in Table D602.11 Standard Reference Design HVAC Systems.

6.2. For all other buildings and occupancies, the system type shall be the same as the system modeled in the baseline design and shall comply with but not exceed the requirements of Section C403 in lieu of ANSI/ASHRAE/IESNA 90.1.

6.3. For HVAC systems serving future tenant spaces, where the current building permit applies to only a portion of an HVAC system, and future components will receive HVAC services from systems included in the current building permit, those future components shall be modeled as the type required to complete the HVAC system portions under the current permit and shall meet but not exceed the requirements found in Section C403.

7. The requirements for proposed and baseline building lighting system shall be modified in accordance with Addendum af to ANSI/ASHRAE/IESNA 90.1.

8. Energy modeler qualifications. The energy analyst in responsible charge of the Section C407 submittal shall meet at least one of the following:

8.1. ASHRAE Building Energy Modeling Professional (BEMP) certification.

8.2. Association of Energy Engineer's Building Energy Simulation Analyst (BESA) certification.

8.3. Successful completion of at least five projects modeled following any version of ANSI/ASHRAE/IESNA 90.1 Appendix G within the last three years that were reviewed and approved by a *code official* or rating authority.

C407.3.1 Limits on nonmandatory measures. The Proposed Total UA of the proposed building shall be no more than 20 percent higher than the Allowed Total UA as defined in Section C402.1.5.

C407.3.2 On-site and off-site renewable energy accounting for use with Appendix G. Qualifying on-site and off-site renewable energy delivered or credited to the building project to comply with Section C407.3 item 2.2 shall meet the requirements of Section C411.2.

C407.3.3 Low-carbon district energy use with Appendix G. Qualifying *low-carbon district heating and cooling or heating only systems* and *low-carbon district energy exchange systems* shall meet the requirements of Section C407.3.3.1 or C407.3.3.2, as applicable.

C407.3.3.1 Utilization of low-carbon district heating and cooling or heating only systems. Applicable if heating and cooling or heating only is provided to the *proposed building* from a *low-carbon district heating and cooling or heating only system* that is fully operational prior to the final inspection. Proposed model shall account for all on-site HVAC and service hot water related equipment, such as circulation pump energy and heat-exchanger efficiency.

1. The following modifications shall be applied to Appendix G of ANSI/ASHRAE/IESNA 90.1 in addition to what is described in Section C407.3:

1.1. For low-carbon district heating and cooling systems, strike the text of Sections G3.1.1.1, G3.1.1.2, G3.1.1.3.1, G3.1.1.3.3, and G3.1.1.3.4. Baseline system shall be selected based on unmodified versions of Tables G3.1.1-3 and G3.1.1-4, (~~(with carbon emission factors from Table C407.3(1))~~) comparing energy use to determine compliance.

1.2. For low-carbon district heating only systems, strike the text of Sections G3.1.1.1, G3.1.1.3.1, and G3.1.1.3.4. Baseline system shall be selected based on unmodified versions of Tables G3.1.1-3 and G3.1.1-4, with carbon emission factors from Table C407.3(1).

2. Any heating or cooling energy provided by the *low-carbon district heating and cooling or heating only system* shall utilize (~~footnote a of Table C407.3(1) for the district system carbon emission factor in the proposed model~~) a calculated energy use reduction factor acceptable to the code official to account for (~~carbon emissions~~) energy use reduction from those end uses.

3. (~~Carbon emission~~) Energy "credit" for any waste/recoverable heat exported to the *low-carbon district heating and cooling or heating only systems* shall be accounted for in the proposed design by multiplying the quantity of heat exported by the (~~Carbon Emissions Factor established in footnote a of Table C407.3(1) multiplied by the~~) appropriate seasonal utilization factor in Items 3.1 and 3.2 below. This carbon (~~emissions~~) energy "credit" is subtracted from the total proposed design (~~carbon emissions~~) energy use calculated in accordance with ASHRAE 90.1 Section 4.2.1.1.

3.1. Fifty percent of the waste heat exported to the *low-carbon district heating and cooling or heating only systems* during the months of October through December and January through March.

3.2. Twenty-five percent of the waste heat exported to the *low-carbon district heating and cooling or heating only systems* during the months of April through September.

EXCEPTION: Waste heat exported from the building to the *low-carbon district heating and cooling or heating only system* shall not be subtracted from the proposed design ~~((carbon-emissions)) energy use~~ if they are already accounted for in the calculation of ~~((emissions)) energy use~~ from the district heating or cooling plant as part of the district energy efficiency factor.

Documentation for the low-carbon district system that is operational prior to the final inspection shall be provided to demonstrate the following:

1. Distribution losses must be accounted for and may not exceed 10 percent of the annual load delivered to buildings served by the system.

2. Twenty-five percent of the annual district-system-net-load-met (sum of heating and cooling energy provided to attached buildings) comes from heat recovery between connected buildings, waste heat or renewable energy resources and no more than 25 percent of the annual heat input to the system comes from fossil fuel or electric-resistance sources, or not more than 10 percent of the system annual heat input to the system comes from fossil fuel or electric-resistance sources.

C407.3.3.2 Utilization of low-carbon district energy exchange systems.

Applicable if heating or cooling is provided to the *proposed building* from a *low-carbon district energy exchange system* that is fully operational prior to the final inspection. Proposed model shall account for all on-site HVAC and service hot water related equipment, such as circulation pump energy and heat-exchanger efficiency.

1. The following modifications shall be applied to Appendix G of ANSI/ASHRAE/IESNA 90.1 in addition to what is described in Section C407.3:

1.1. Strike the text of Sections G3.1.1.1, G3.1.1.2, G3.1.1.3, G3.1.1.3.1, G3.1.1.3.2, G3.1.1.3.3, and G3.1.1.3.4. Baseline system shall be selected based on unmodified versions of Tables G3.1.1-3 and G3.1.1-4 ~~((, with carbon emission factors from Table C407.3(1)))~~.

2. Any heating or cooling energy provided by a low-carbon district energy exchange system shall utilize ~~((footnote a of Table C407.3(1) for the district system carbon emission factor))~~ a calculated energy use reduction factor acceptable to the code official to account for the reduction in the proposed model.

3. ~~((Carbon emission))~~ Energy use "credit" for any waste/recoverable heating exported to the *low-carbon district energy exchange system* shall be accounted for in the proposed design by multiplying the quantity of heat exported by the ~~((Carbon Emissions Factor established in footnote a of Table C407.3(1) multiplied by the))~~ appropriate seasonal utilization factor in Items 3.1 and 3.2 below. This ~~((carbon emissions)) energy use "credit"~~ is subtracted from the total proposed design ~~((carbon emissions)) energy use~~ calculated in accordance with ASHRAE 90.1 Section 4.2.1.1.

3.1. Fifty percent of the waste heat exported to the *low-carbon district energy exchange system* during the months of October through December and January through March.

3.2. Twenty-five percent of the waste heat exported to the *low-carbon district energy exchange system* during the months of April through September.

EXCEPTION: Waste heat exported from the building to the *low-carbon district heating and cooling or heating only system* shall not be subtracted from the proposed design ~~((carbon-emissions)) energy use~~ if they are already accounted for in the calculation of ~~((emissions)) energy use~~ from the district heating or cooling plant as a part of the district energy efficiency factor.

Documentation for the low-carbon district system that is operational prior to the final inspection shall be provided to demonstrate that the definition of *low-carbon district energy exchange system* is satisfied.

C407.3.4 Credit for improvements in unregulated loads when using Appendix G. When calculating savings for site energy targets in accordance with Section C407.3 item 2.2, but not when calculating savings for emissions targets in accordance with Section C407.3 item 2.1, differences in the simulation of unregulated loads and equipment modeled in the baseline building design from those in the *proposed design* shall be approved by the *code official* based on documentation that the equipment installed in the *proposed design* represents a significant verifiable departure from documented current conventional practice. All unregulated equipment for which savings is claimed must be installed by the time of final inspection. The burden of this documentation is to demonstrate that accepted conventional practice would result in baseline building equipment different from that installed in the *proposed design*. Occupancy and occupancy schedules shall not be changed.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40703, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40703, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40703, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40703, filed 2/1/13, effective 7/1/13.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION [NEW SECTION] (Amending WSR 22-14-091, 23-12-101, and 23-20-021, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24)

WAC 51-11C-407031 Tables for Section C407.3.

**Table C407.3(1)
(~~(Carbon Emissions Factors)~~) Reserved**

| (Type | CO₂e (lb/unit) | Unit |
|--------------------------|--------------------------------------|-----------------|
| Electricity | 0.44 | kWh |
| Natural gas | 11.7 | Therm |
| Oil | 19.2 | Gallon |
| Propane | 10.5 | Gallon |
| Other ^a | 195.00 | mmBtu |
| On-site renewable energy | 0.00 | |

^a ~~District energy systems may use alternative emissions factors supported by calculations approved by the code official.)~~

**Table C407.3(2)
Building Performance Factors (BPF)
to be used for Compliance with Section C407.3**

| Building Area Type | Building Performance Factor |
|----------------------|-----------------------------|
| Multifamily | ((0.55)) <u>0.51</u> |
| Health care/hospital | ((0.71)) <u>0.70</u> |
| Hotel/motel | ((0.53)) <u>0.51</u> |
| Office | ((0.45)) <u>0.44</u> |
| Restaurant | ((0.35)) <u>0.33</u> |
| Retail | 0.41 |
| School | ((0.36)) <u>0.35</u> |
| Warehouse | ((0.19)) <u>0.18</u> |
| All others | ((0.44)) <u>0.43</u> |

Table C407.3(3)
Site Energy Performance Targets to be used for Compliance with Section C407.3

| Building Area Type | Site Energy Performance Targets |
|----------------------|---------------------------------|
| Multifamily | 0.59 |
| Health care/hospital | 0.72 |
| Hotel/motel | 0.62 |
| Office | 0.58 |
| Restaurant | 0.59 |
| Retail | 0.46 |
| School | 0.52 |
| Warehouse | 0.29 |
| All others | 0.55 |

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-407031, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [19-24-040], filed 7/1/22, 6/7/23, and 9/25/23 [11/26/19], effective 3/15/24 [7/1/20])

WAC 51-11C-41100 Section C411—Renewable energy.

C411.1 On-site renewable energy. Each new building, or addition larger than 10,000 square feet of gross *conditioned floor area*, shall include a renewable energy generation system consisting of not less than 0.5 W/ft² or 1.7 Btu/ft² multiplied by the sum of the gross *conditioned floor area*.

EXCEPTIONS:

1. Any building where more than 50 percent of the roof area is shaded from direct beam sunlight by natural objects or by structures that are not part of the building for more than 2500 annual hours between 8:00 a.m. and 4:00 p.m.
2. Any building where more than 80 percent of the roof area is covered by any combination of equipment other than for on-site renewable energy systems, planters, vegetated space, skylights or occupied roof deck.
3. Buildings which can document they do not have adequate roof area to install the required on-site solar and that comply with Section C411.1.1 may install a lesser amount of on-site renewables but not zero.

C411.1.1 Additional efficiency credits. Buildings which qualify for one of the exceptions in Section C411.1 to omit installation of on-site renewable energy must achieve an additional 18 efficiency package credits from Table C406.2(1) or Table C406.2(2). The additional 18 credits can be reduced based on a prorated fraction of renewable capacity that is installed on-site.

On-site renewable energy installations of lower than required capacity can be counted proportionally toward achievement of required or additional efficiency credits in Section C411.1.1 based on the capacity of renewable energy installed compared to the requirements of Section C411.1.

C411.2 On-site and off-site renewable energy accounting. Qualifying on-site and off-site renewable energy delivered or credited to the building project to comply with this code shall meet the requirements of this section. Renewable energy certificates for an on-site or off-site renewable energy system shall be retired on behalf of the building owner for a period of not less than 15 years and tracked in accordance with Section C411.2.3 and submitted to the code official as part of the permit application.

C411.2.1 Qualifying types of off-site renewable energy systems. The following are considered qualifying off-site renewable energy systems:

1. Self-generation (an off-site renewable energy system owned by the building project owner) systems complying with Section C411.2.2.
2. Community renewable energy facility systems complying with Section C411.2.2.
3. Purchase contracts complying with Section C411.2.3.
4. Each source of renewable energy delivered to or credited to the building project shall be connected to the Western Interconnection and energy or capacity multiplied by the factors in Table C411.2.1.

**Table C411.2.1
Multipliers for Renewable Energy Procurement Methods**

| Location | Renewable Energy Source | Renewable Energy Factor | | |
|----------|---|----------------------------|------------------------|----------------------------------|
| | | In the state of Washington | Western Interconnected | In the states of Oregon or Idaho |
| On-site | On-site renewable energy system | 1 | NA | NA |
| Off-site | Directly owned off-site renewable energy system that begins operation after submission of the initial permit application | 0.95 | 0.75 | 0.85 |
| Off-site | Community renewable energy facility that begins operation after submission of the initial permit application | 0.95 | 0.75 | 0.85 |
| Off-site | Directly owned off-site renewable energy system that begins operation before submission of the initial permit application | 0.75 | 0.55 | 0.65 |
| Off-site | Community renewable energy facility that begins operation before submission of the initial permit application | 0.75 | 0.55 | 0.65 |
| Off-site | Renewable Power Purchase Agreement (PPA) | 0.75 | 0.55 | 0.65 |

C411.2.2 Documentation requirements for off-site renewable energy systems. Off-site renewable energy delivered or credited to the building project to comply with Section C407.3 item 2.2 shall be subject to a

legally binding contract to procure qualifying off-site renewable energy. Qualifying off-site renewable energy shall meet the following requirements:

1. Documentation of off-site renewable energy procurement shall be submitted to the *code official*.

2. The purchase contract shall have a duration of not less than 15 years. The contract shall be structured to survive a partial or full transfer of ownership of the building property.

3. Records on renewable power purchased by the building owner from the off-site renewable energy generator that specifically assign the RECs to the building owner shall be retained or retired by the building owner on behalf of the entity demonstrating financial or operational control over the building seeking compliance to this standard and made available for inspection by the *code official* upon request.

4. Where multiple buildings in a building project are allocated energy procured by a contract subject to this section, the owner shall allocate for not less than 15 years the energy procured by the contract to the buildings in the building project. A plan on operation shall be developed which shall indicate how renewable energy produced from on-site or off-site systems that is not allocated before issuance of the certificate of occupancy will be allocated to new or existing buildings included in the building project.

C411.2.3 Renewable energy certificate (REC) tracking. For multitenant buildings where RECs are transferred to tenants, the plan for operation shall include procedures for tracking the quantity and vintage of RECs that are required to be retained and retired. The plan shall include provisions to transfer the RECs to building tenants, or to retire RECs on their behalf, in proportion to the gross conditioned and semi-heated floor area leased or rented. The plan shall include provisions to use a REC tracking system that meets the requirements of Section V.B of the Green-e Framework for Renewable Energy Certification. The plan shall describe how the building owner will procure alternative qualifying renewable energy in the case that the renewable energy producer ceases.

C411.3 Solar readiness. A solar zone shall be provided on buildings that are 20 stories or less in height above grade plan. The solar zone shall be located on the roof of the building or on another structure elsewhere on the site. The solar zone shall be in accordance with this section and the *International Fire Code*.

EXCEPTION:

A solar zone is not required under the following conditions:

1. Where the solar exposure of the building's roof area is less than 75 percent of that of an unshaded area, as defined in Section C411.5, in the same location, as measured by one of the following:

1.1. Incident solar radiation expressed in kWh/ft²-yr using typical meteorological year (TMY) data.

1.2. Annual sunlight exposure expressed in cumulative hours per year using TMY data.

1.3. Shadow studies indicating that the roof area is more than 25 percent in shadow, on September 21st at 10 a.m., 11 a.m., 12 p.m., 1 p.m., and 2 p.m. solar time.

2. Buildings, building additions, changes in space conditioning or occupancy where the total floor area is equal to or less than 500 square feet.

C411.3.1 Minimum area. The minimum area of the solar zone shall be determined by one of the following methods, whichever results in the smaller area:

1. Forty percent of roof area. The roof area shall be calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, mechanical equipment, mechanical equipment service clearances, and planted areas.

2. Twenty percent of electrical service size. The electrical service size is the rated capacity of the total of all electrical services to the building, and the required solar zone size shall be based upon 10 peak watts of photovoltaic per square foot.

EXCEPTION: Subject to the approval of the code official, buildings with extensive rooftop equipment that would make full compliance with this section impractical shall be permitted to reduce the size of the solar zone required by Section C411.3 to the maximum practicable area.

C411.3.2 Contiguous area. The solar zone is permitted to be comprised of separated subzones. Each subzone shall be at least 5 feet wide in the narrowest dimension.

C411.3.3 Obstructions. The solar zone shall be free of pipes, vents, ducts, HVAC equipment, skylights and other obstructions, except those serving photovoltaic systems within the solar zone. The solar zone is permitted to be located above any such obstructions, provided that the racking for support of the future system is installed at the time of construction, the elevated solar zone does not shade other portions of the solar zone, and its height is permitted by the *International Building Code*. Photovoltaic or solar water heating systems are permitted to be installed within the solar zone.

C411.3.4 Shading. The solar zone shall be set back from any existing or new object on the building or site that is located south, east or west of the solar zone a distance at least two times the object's height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees, and roof plantings. No portion of the solar zone shall be located on a roof slope greater than 2:12 that faces within 45 degrees of true north.

C411.3.5 Access. Areas contiguous to the solar zone shall provide access pathways and provisions for emergency smoke ventilation as required by the *International Fire Code*.

C411.3.6 Structural integrity. The as-designed dead load and live load for the solar zone shall be clearly marked on the record drawings and shall accommodate future photovoltaic system arrays at an assumed dead load of 4 pounds per square foot in addition to other required live and dead loads. A location for future inverters shall be designated either within or adjacent to the solar zone, with a minimum area of 2 square feet for each 1000 square feet of solar zone area, and shall accommodate an assumed dead load of 175 pounds per square foot. Where photovoltaic systems are installed in the solar zone, structural analysis shall be based upon calculated loads, not upon these assumed loads.

C411.3.7 Photovoltaic interconnection. Interconnection of the future photovoltaic system shall be provided for at the main service panel, either ahead of the service disconnecting means or at the end of the bus opposite the service disconnecting means, in one of the following forms:

1. A space for the mounting of a future overcurrent device, sized to accommodate the largest standard rated overcurrent device that is less than 20 percent of the bus rating.

2. Lugs sized to accommodate conductors with an ampacity of at least 20 percent of the bus rating, to enable the mounting of an external overcurrent device for interconnection.

The electrical construction documents shall indicate all of the following:

1. Solar zone boundaries and access pathways.
2. Location for future inverters and metering equipment.
3. Route for future wiring between the photovoltaic panels and the inverter, and between the inverter and the main service panel.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021 § 51-11C-41100, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-41100, filed 11/26/19, effective 7/1/20.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [20-21-080], filed 7/1/22, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11C-50000 Chapter 5 [CE]—Existing buildings.

C501 General.

C501.1 Scope. The provisions of this chapter shall control the *alteration, repair, addition* and change of occupancy of existing buildings and structures.

C501.1.1 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. Unaltered portions of existing buildings used for residential purposes shall not be required to comply with this code.

C501.2 Compliance. *Additions, alterations, repairs, changes in space conditioning and changes of occupancy to, or relocation of, existing buildings and structures shall comply with Section C502, C503, C504, or C505 of this code, and with all applicable provisions in the International Building Code, International Existing Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, Uniform Plumbing Code, and NFPA 70.*

C501.2.1 U-factor requirements for additions and alterations. For existing building projects where an *addition or building envelope alteration* area is combined with existing-to-remain building areas to demonstrate compliance with this code as a whole building, the *U-factors* applied to existing-to-remain envelope assemblies shall be in accordance with record documents.

EXCEPTION: If accurate record documents are not available, *U-factors* for the existing envelope assemblies may be in accordance with the edition of the Washington State Energy Code that was in effect at the time the building was permitted, or as approved by the *code official*.

C501.2.2 Calculations of mechanical heating and cooling loads for alterations. For the installation of new or replacement mechanical equipment that serves existing building areas, design loads associated with heating, cooling and ventilation of the existing building areas served shall be determined in accordance with Section C403.1.2.

R-values and *U-factors* used to determine existing thermal envelope performance for the purpose of calculating design loads shall be in accordance with record documents or existing conditions.

EXCEPTION: If accurate record documents are not available, *R*-values and *U*-factors used to determine existing building thermal envelope performance may be in accordance with the edition of the Washington State Energy Code that was in effect at the time the building was permitted, or as *approved* by the *code official*.

C501.3 Maintenance. Buildings and structures, and parts thereof, shall be maintained in a safe and sanitary condition. Devices and systems which are required by this code shall be maintained in conformance with the code edition under which installed. The owner or the owner's authorized agent shall be responsible for the maintenance of buildings and structures. The requirements of this chapter shall not provide the basis for removal or abrogation of energy conservation, fire protection and safety systems and devices in existing structures.

C501.4 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

C501.5 Historic buildings. Provisions of this code relating to the construction, *repair, alteration, restoration* and movement of structures, and *change of occupancy* shall not be mandatory for historic buildings provided that a report has been submitted to the code official and signed by a registered design professional, or a representative of the state historic preservation office or the historic preservation authority having jurisdiction, demonstrating that compliance with that provision would threaten, degrade or destroy the historic form, fabric or function of the building.

C501.6 Commissioning. Existing building systems shall be commissioned in accordance with Section C408. For the purposes of meeting the commissioning thresholds in Section C408.1, only the new and altered system capacities are considered when determining whether the project is exempt from some portion of the commissioning process.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-50000, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-50000, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-50000, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-50000, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-50000, filed 2/1/13, effective 7/1/13.]

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.

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [20-21-080], filed 7/1/22, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11C-50300 Section C503—Alterations.

C503.1 General. Alterations to any building or structure shall comply with the requirements of Section C503 and the code for new construction. Alterations 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 portions of the existing building or building system to comply with this code. Alterations shall be such that the existing building or structure is no less conforming with the provisions of this code than the existing building or structure was prior to the alteration. The additional energy efficiency credit requirements in Section C406.1 and the renewable energy requirements in Section C411 do not apply to alterations.

EXCEPTION: The following alterations need not comply with the requirements for new construction provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Surface applied window film installed on existing single pane fenestration assemblies to reduce solar heat gain provided the code does not require the glazing fenestration to be replaced.
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. *Roof recover*.
6. *Air barriers* shall not be required for *roof recover* and roof replacement where the *alterations* or renovations to the building do not include *alterations*, renovations or *repairs* to the remainder of the building envelope.
7. 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.

C503.2 Reserved.

C503.3 Building envelope. New building envelope assemblies that are part of the alteration shall comply with Sections C402.1 through C402.5 and Sections C503.3.1 through C503.3.3.

EXCEPTION: Air leakage testing is not required for alterations and repairs, unless the project includes a change in space conditioning according to Section C503.2 or a change of occupancy or use according to Section C505.1.

C503.3.1 Roof replacement. *Roof replacements* shall comply with Table C402.1.3 or C402.1.4 where the existing roof assembly is part of the *building thermal envelope* and contains no insulation or the insulation is located entirely above the roof deck. In no case shall the R-value of the roof insulation be reduced or the U-factor of the roof assembly be increased as part of the *roof replacement*.

C503.3.2 Vertical fenestration. Alterations that include the addition of new vertical fenestration area shall comply with the following:

1. Where the addition of new *vertical fenestration* area results in a total building vertical fenestration area less than or equal to the maximum allowed by Section C402.4.1, the alteration shall comply with Section C402.4.
2. Where the addition of new *vertical fenestration* area result in a total building *vertical fenestration* area greater than the maximum allowed by Section C402.4.1 (regardless of the ratio prior to the addition), the alteration shall comply with one of the following:
 - 2.1. Vertical fenestration alternate in accordance with Section C402.1.3 for the new vertical fenestration added.
 - 2.2. Vertical fenestration alternate in accordance with Section C402.4.1.1 for the area adjacent to the new vertical fenestration added.
 - 2.3. Existing building and alteration areas are combined to demonstrate compliance with the component performance alternate in accordance with Section C402.1.5 for the whole building. U-factors ap-

plied to existing envelope assemblies in the UA calculation shall comply with Section C501.2.1. The Proposed Total UA is allowed to be up to 110 percent of the Allowed Total UA.

2.4. Total building performance in accordance with Section C407 for the whole building. The total annual carbon emissions from energy consumption of the proposed design is allowed to be up to 110 percent of the annual carbon emissions from energy consumption allowed in accordance with Section C407.3.

EXCEPTION: Where *approved* by the *code official*, additional *fenestration* is permitted where sufficient envelope upgrades beyond those required by other sections of this code are included in the project so that the addition of new *vertical fenestration* does not cause an increase in the overall energy use of the building.

C503.3.2.1 Replacement fenestration products. 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 C402.4.

EXCEPTION: An area-weighted average of the *U*-factor of replacement fenestration products being installed in the building for each fenestration product category listed in Table C402.4 shall be permitted to satisfy the *U*-factor requirements for each fenestration product category listed in Table C402.4. Individual fenestration products from different product categories listed in Table C402.4 shall not be combined in calculating the area-weighted average *U*-factor.

C503.3.3 Skylights. Alterations that include the addition of new skylight area shall comply with the following:

1. Where the addition of new *skylight* area results in a total building skylight area less than or equal to the maximum allowed by Section C402.4.1, the alteration shall comply with Section C402.4.

2. Where the addition of new *skylight* area results in a total building skylight area greater than the maximum allowed by Section C402.4.1 (regardless of the ratio prior to the addition), the alteration shall comply with one of the following:

2.1. Existing building and alteration area are combined to demonstrate compliance with the component performance alternative with target area adjustment in accordance with Section C402.1.5 for the whole building. *U*-factors applied to existing envelope assemblies in the UA calculation shall comply with Section C501.2.1. The Proposed Total UA is allowed to be up to 110 percent of the Allowed Total UA.

2.2. Total building performance in accordance with Section C407 for the whole building. The annual carbon emissions from energy consumption of the proposed design is allowed to be up to 110 percent of the annual carbon emissions from energy consumption allowed in accordance with Section C407.3.

EXCEPTION: Additional envelope upgrades are included in the project so the addition of new skylights does not cause a reduction in overall building energy efficiency, as *approved* by the *code official*.

C503.4 Building mechanical systems. Components of existing mechanical systems that are altered or replaced shall comply with Section C403 or Section C407, unless specifically exempted in this section, and Sections C408.2, C409.5, C501.2.2, C501.6, and C503.4.2 through C503.4.5. Additions or alterations shall not be made to an existing mechanical system that will cause the existing system to become out of compliance.

EXCEPTIONS:

1. Existing mechanical systems are not required to be modified to comply with Section C403.3.5 where mechanical cooling capacity is not added to a system that did not have cooling capacity prior to the alteration.
2. Compliance with Section C403.1.4 is not required where the alteration does not include replacement of a heating appliance.
3. Alternate mechanical system designs that are not in full compliance with this code may be approved when the code official determines that existing building constraints including, but not limited to, available mechanical space, limitations of the existing structure, or proximity to adjacent air intakes or exhausts makes full compliance impractical. Alternate designs shall include additional energy saving strategies not prescriptively required by this code for the scope of the project including, but not limited to, demand control ventilation, energy recovery, or increased mechanical cooling or heating equipment efficiency above that required by Tables C403.3.2(1) through C403.3.2 (16).

4. Only those components of existing HVAC systems that are altered or replaced shall be required to comply with Section C403.8.1. Section C403.8.1 does not require the removal and replacement of existing system ductwork. Additional fan power allowances are available when determining the fan power budget (Fan kW_{budget}) as specified in Table C503.4. These values can be added to the fan power allowance values in Tables C403.8.1.1(1) and C403.8.1.1(2) when calculating a new Fan kW_{budget} for the fan system being altered. The additional fan power allowance is not applicable to alterations that add or change passive components which do not increase the fan system static pressure.

**Table C503.4
Additional Fan Power Allowances (W/CFM)**

| Airflow | Multi-Zone VAV Systems ^a ≤5,000 cfm | Multi-Zone VAV Systems ^a >5,000 and ≤10,000 cfm | Multi-Zone VAV Systems ^a >10,000 cfm | All Other Fan Systems ≤5,000 cfm | All Other Fan Systems >5,000 and ≤10,000 cfm | All Other Fan Systems >10,000 cfm |
|---|--|--|---|----------------------------------|--|-----------------------------------|
| Supply Fan System additional allowance | 0.135 | 0.114 | 0.105 | 0.139 | 0.120 | 0.107 |
| Supply Fan System additional allowance in unit with adapter curb | 0.033 | 0.033 | 0.043 | 0.000 | 0.000 | 0.000 |
| Exhaust/ Relief/ Return/ Transfer Fan System additional allowance | 0.070 | 0.061 | 0.054 | 0.070 | 0.062 | 0.055 |
| Exhaust/ Relief/ Return/ Transfer Fan System additional allowance with adapter curb | 0.016 | 0.017 | 0.220 | 0.000 | 0.000 | 0.000 |

^a See definition of FAN SYSTEM, MULTI-ZONE VARIABLE AIR VOLUME (VAV).

C503.4.1 New building mechanical systems. All new mechanical systems and equipment in existing buildings shall comply with Sections C403, C408.2, C409.5, and C501.6.

C503.4.2 Addition of cooling capacity. Where mechanical cooling is added to a space that was not previously cooled, the mechanical system shall comply with either Section C403.3.5 or C403.5.

EXCEPTIONS:

1. Qualifying small equipment: Economizers are not required for cooling units and split systems serving one zone with a total cooling capacity rated in accordance with Section C403.3.2 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 C403.3.2 (1), (2), (4), (8), (9), and (14), 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 the building total air economizer capacity, whichever is greater.

Notes and exclusions for Exception 1:

- 1.1. The portion of the equipment serving Group R occupancies is not included in determining the total capacity of all units without economizers in a building.
- 1.2. Redundant units are not counted in the capacity limitations.
- 1.3. This exception shall not be used for the initial tenant improvement of a shell-and-core building or space, or for Total Building Performance in accordance with Section C407.
- 1.4. This exception shall not be used for unitary cooling equipment installed outdoors or in a mechanical room adjacent to the outdoors.
- 2. Chilled water terminal units connected to systems with chilled water generation equipment with IPLV values more than 25 percent higher than minimum part load equipment efficiencies listed in Table C403.3.2 (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 systems without economizers shall not exceed 480,000 Btu/h per building, or 20 percent of the building total air economizer capacity, whichever is greater.

Notes and exclusions for Exception 2:

- 2.1. The portion of the equipment serving Group R occupancy is not included in determining the total capacity of all units without economizers in a building.
- 2.2. This exception shall not be used for the initial tenant improvement of a shell-and-core building or space, or for total building performance in accordance with Section C407.

C503.4.3 Alterations or replacement of existing cooling systems. Alterations to, or replacement of, existing mechanical cooling systems shall not decrease the building total economizer capacity unless the system complies with either Section C403.3.5 or C403.5. System alterations or replacement shall comply with Table C503.4.3 when either the individual cooling unit capacity or the building total capacity of all

cooling equipment without economizer does not comply with the exceptions in Section C403.5. Equipment replacements that include space heating shall also comply with Section C503.4.3.

**Table C503.4.3
Economizer Compliance Options for Mechanical Alterations**

| | Option A | Option B (alternate to A) | Option C (alternate to A) | Option D (alternate to A) |
|---|--|--|---|---|
| Unit Type | Any alteration with new or replacement equipment | Replacement unit of the same type with the same or smaller output capacity | Replacement unit of the same type with a larger output capacity | New equipment added to existing system or replacement unit of a different type |
| 1. Packaged Units | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b |
| 2. Split Systems | Efficiency: min. ^a Economizer: C403.5 ^b | For units ≤ 60,000 Btuh, comply with two of two measures: 1. Efficiency: + 10% ^c 2. Economizer: shall not decrease existing economizer capability | For units ≤ 60,000 Btuh replacing unit installed prior to 1991 comply with at least one of two measures: 1. Efficiency: + 10% ^c 2. Economizer: 50% ^f | Efficiency: min. ^a Economizer: C403.5 ^b |
| | | For all other capacities: Efficiency: min. ^a Economizer: C403.5 ^b | For all other capacities: Efficiency: min. ^a Economizer: C403.5 ^b | |
| 3. Water Source Heat Pump | Efficiency: min. ^a Economizer: C403.5 ^b | For units ≤ 72,000 Btuh, comply with at least two of three measures: 1. Efficiency: +10% ^c 2. Flow control valve ^g 3. Economizer: 50% ^f | For units ≤ 72,000 Btuh, comply with at least three of three measures: 1. Efficiency: +10% ^c 2. Flow control valve ^g 3. Economizer: 50% ^f (except for certain pre-1991 systems ^q) | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q) |
| | | For all other capacities: Efficiency: min. ^a Economizer: C403.5 ^b | For all other capacities: Efficiency: min. ^a Economizer: C403.5 ^b | |
| 4. Water Economizer using Air-Cooled Heat Rejection Equipment (Dry Cooler) | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: + 5% ^d Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b |
| 5. Air-Handling Unit (including fan coil units) where the system has an air-cooled chiller | Efficiency: min. ^a Economizer: C403.5 ^b | Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q) | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q) |
| 6. Air-Handling Unit (including fan coil units) and Water-cooled Process Equipment, where the system has a water-cooled chiller ¹⁰ | Efficiency: min. ^a Economizer: C403.5 ^b | Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q and certain 1991-2016 systems ⁱ) | Efficiency: min. ^a Economizer: C403.5 ^b (except for certain pre-1991 systems ^q and certain 1991-2016 systems ⁱ) |
| 7. Cooling Tower | Efficiency: min. ^a Economizer: C403.5 ^b | No requirements | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: min. ^a Economizer: C403.5 ^b |
| 8. Air-Cooled Chiller | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: + 10% ^k Economizer: shall not decrease existing economizer capacity | Efficiency: Comply with two of two measures: 1. + 10% ^{k,l} and 2. Multistage compressor(s) Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b |
| 9. Water-Cooled Chiller | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: Comply with at least one of two measures: 1. Part load IPLV + 15% ⁿ or 2. Plate frame heat exchanger ^o Economizer: shall not decrease existing economizer capacity | Efficiency: Comply with two of two measures: 1. Part load IPLV + 15% ⁿ 2. Plate-frame heat exchanger ^o Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b |

| | Option A | Option B (alternate to A) | Option C (alternate to A) | Option D (alternate to A) |
|--------------------------------------|--|--|--|--|
| Unit Type | Any alteration with new or replacement equipment | Replacement unit of the same type with the same or smaller output capacity | Replacement unit of the same type with a larger output capacity | New equipment added to existing system or replacement unit of a different type |
| 10. Package Terminal Air Conditioner | Efficiency: min. ^a Economizer: C403.5 ^b | Efficiency: + 5% ^a Economizer: shall not decrease existing economizer capacity | Efficiency: + 5% ^a Economizer: shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b |
| 11. Package Terminal Heat Pump | Efficiency: min. ^a Economizer: C403.5 ^b | Cooling efficiency: + 5% ^d Heating efficiency: + 10% ^e Shall not decrease existing economizer capacity | Cooling efficiency: + 5% ^d Heating efficiency: + 10% ^e Shall not decrease existing economizer capacity | Efficiency: min. ^a Economizer: C403.5 ^b |

- ^a Minimum equipment efficiency shall comply with Section C403.3.2 and the tables in Section C403.3.2.
- ^b All separate new equipment and replacement equipment shall have air economizer complying with Section C403.5 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 C403.5.
- ^c Reserved.
- ^d Equipment shall have a capacity-weighted average cooling system efficiency that is 5% better than the requirements in the tables in Section C403.3.2 (1.05 × values in the tables).
- ^e Equipment shall have a capacity-weighted average cooling system efficiency that is 10% better than the requirements in the tables in Section C403.3.2 (1.10 × values in the tables).
- ^f 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 configured to provide this additional outside air and be equipped with economizer control.
- ^g Water-source heat pump systems shall have a flow control valve to eliminate flow through the heat pumps that are not in operation and 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, the capacity-weighted average cooling system efficiency shall be 5% better than the requirements in footnote ^c for water-source heat pumps (i.e., a minimum of 15% greater than the requirements in Table C403.3.2(14)).
- ^h Water economizer equipment shall have a capacity-weighted average cooling system efficiency that is 10% better than the requirements in Tables C403.3.2(7), C403.3.2(10), and C403.3.2(16) (1.10 × values in Tables C403.3.2(7), C403.3.2(10), and C403.3.2(16)).
- ⁱ Air economizer is not required for systems installed with water economizer plate and frame heat exchanger complying with previous codes between 1991 and June 2016, provided that the total fan coil load does not exceed the existing or added capacity of the heat exchangers.
- ^j 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.
- ^k The air-cooled chiller shall have an IPLV efficiency that is a minimum of 10% greater than the IPLV requirements in EER in Table C403.3.2(3) (1.10 × IPLV values in EER in Table C403.3.2(3)).
- ^l The air-cooled chiller shall be multistage with a minimum of two compressors.
- ^m The water-cooled chiller shall have full load and part load IPLV efficiency that is a minimum of 5% greater than the IPLV requirements in Table C403.3.2(3).
- ⁿ The water-cooled chiller shall have an IPLV value that is a minimum of 15% lower than the IPLV requirements in Table C403.3.2(3) (1.15 × IPLV values in Table C403.3.2 (3)). Water-cooled centrifugal chillers designed for nonstandard conditions shall have an NPLV value that is at least 15% lower than the adjusted maximum NPLV rating in kW per ton defined in Section C403.3.2.3 (1.15 × NPLV).
- ^o 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.
- ^p Reserved.
- ^q 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.

C503.4.4 Controls for cooling equipment replacement. When space cooling equipment is replaced, controls shall comply with all requirements under Section C403.3.5 and related subsections, and Section C403.5.1 for integrated economizer control.

C503.4.5 Mechanical equipment relocation. Existing equipment currently in use may be relocated within the same floor or same tenant space if removed and reinstalled within the same permit.

C503.4.6 Addition or replacement of heating appliances. Where a mechanical heating appliance is added or replaced, the added or replaced appliance shall comply with Section C403.1.4 or with an alternate compliance option in Table C503.4.6.

- EXCEPTIONS:
1. Terminal unit equipment including, but not limited to, hydronic VAV boxes, electric resistance VAV boxes, electric duct heaters, water source heat pumps, fan coils, or VRF indoor units that are served by an unaltered central system.
 2. Air handling equipment with hydronic coils.
 3. Air handling equipment designed for 100 percent outdoor air that is not subject to the requirements in Section C403.3.5 or that qualifies for an exception to Section C403.3.5.
 4. Replacement of existing oil-fired boilers.
 5. Replacement of existing steam boilers with steam distribution to terminal units and the associated boiler feed equipment.
 6. Where compliance with Section C403.1.4 would trigger an unplanned utility electrical service upgrade based on the NEC 220.87 method for determining existing loads.
 7. ~~((Like-for-like replacement of a single heating appliance is permitted where that appliance is failing, requires immediate replacement, and where no other HVAC work is planned.))~~ Replacement of like-for-like heating appliances where the rated capacity of the new equipment does not exceed the rated capacity of the existing equipment.

**Table C503.4.6
Compliance Options for Mechanical Heating Equipment Alterations**

| | Proposed Heating Equipment Type^a | Heating Efficiency Table Reference | Alternate Compliance Options to Section C403.1.4 |
|---|---|---|--|
| 1 | Air-Cooled Unitary Heat Pumps | Table C403.3.2(2) | 1. Compliance with C403.1.4, except heat pump rated capacity in accordance with Section C403.1.4 exception 5d is permitted to be sized equal to the supplemental internal resistance heating capacity in Climate Zone 4 or 5 ^c 2. Compliance with C403.1.4, except electric resistance mixed air preheat is permissible ^c |
| 2 | Packaged terminal, single-package vertical, and room air-conditioner heat pumps | Table C403.3.2(4) | 1. Compliance with C403.1.4, except heat pump rated capacity in accordance with Section C403.1.4 Exception 5d is permitted to be sized equal to the supplemental internal resistance heating capacity in Climate Zone 4 or 5 |
| 3 | Furnaces, duct furnaces, and unit heaters | Table C403.3.2(5) | 1. Efficiency: +((+0)) 5% ^b |
| 4 | Gas-fired hot water boilers with fewer than 80% of served coils replaced | Table C403.3.2(6) | 1. Efficiency: +((+0)) 5% ^b |
| 5 | Variable refrigerant flow air-to-air and applied heat pumps | Table C403.3.2(9) | No alternate compliance option |
| 6 | DX-DOAS equipment | Table C403.3.2(12) and Table C403.3.2(13) | 1. DX-DOAS is provided with heat recovery if not required by C403.3.5.1. |
| 7 | Water-source heat pumps | Table C403.3.2(14) | No alternate compliance option |

- ^a Includes replacement of equipment with a unit that is the same type or higher efficiency and the same or lower capacity, or a replacement of one equipment type with a different equipment type.
- ^b Equipment shall have a capacity-weighted average heating system efficiency that is 10 percent better than that shown in the reference table (((+0)) 1.05 x values in reference table).
- ^c Option 1 and Option 2 can be combined.

C503.4.6.1 Hydronic system alteration supply water temperature. Hydronic heating coils and appliances subject to Section C503.4.5 or Section C503.4.6 shall comply with Section C403.3.7.2.

C503.5 Service water heating equipment. All new service water heating systems, equipment, and components of existing systems that are altered or replaced shall comply with Section C407 or Sections C404, C408.3, C409.5, and C501.6. Additions or alterations shall not be made to an existing service water heating system that will cause the existing system to become out of compliance.

- EXCEPTION:
- The following equipment is not required to comply with Section C404.2.1:
1. Replacement of ~~((a single electric resistance or fuel-fired))~~ service water heating appliances with ~~((a unit))~~ equipment that is the same type and has the same or higher efficiency and the same or lower capacity, provided there are no other alterations made to the existing service water heating system size or configuration.
 2. Replacement of any of the following water heater appliances:
 - 2.1. Electric water heaters with an input of 12 kW or less.
 - 2.2. Gas storage water heaters with an input of 75,000 Btu/h or less.
 - 2.3. Gas instantaneous water heaters with an input of 200,000 Btu/h or less and 2 gallons or less of storage.
 3. Where it has been determined by the code official that existing building constraints including, but not limited to, available floor space or ceiling height, limitations of the existing structure, or electrical service capacity, make compliance technically infeasible.

C503.6 Pools and permanent spas. All new systems and equipment serving pools and permanent spas and components of existing systems that are altered or replaced, shall comply with Sections C404.11, C408.3, C409.5, and C501.6. Additions or alterations shall not be made to an existing system serving a pool or spa that will cause the existing system to become out of compliance.

C503.7 Electrical power and lighting systems and motors. Alterations or the addition of lighting, receptacles and motors shall comply with Sections C503.7.1 through C503.7.7. Additions or alterations shall not be made to an existing lighting or electrical system that will cause the existing system to become out of compliance.

C503.7.1 New lighting systems and controls. All new interior and exterior lighting systems within an existing building site shall be provided with lighting controls in accordance with Section C405.2 and shall comply with C408.4, C409.5, and C501.6.

C503.7.2 Luminaire additions and alterations. Alterations that add or replace 20 percent or more of the luminaires in a space enclosed by walls or ceiling-height partitions, replace 20 percent or more of parking garage luminaires, or replace 20 percent or more of the total installed wattage of exterior luminaires shall comply with Sections C405.4 and C405.5. Exterior power allowance shall be determined using the specific area allowances for the areas altered and shall not include the base site allowance. Where less than 20 percent of the fixtures in an interior space enclosed by walls or ceiling-height partitions or in a parking garage are added or replaced, or less than 20 percent of the installed exterior wattage is replaced, the installed lighting wattage shall be maintained or reduced.

C503.7.3 Rewiring and recircuiting. Where new wiring is being installed to serve added fixtures and/or fixtures are being relocated to a new circuit, lighting controls shall comply with all applicable requirements in accordance with Sections C405.2.1, C405.2.3, C405.2.4, C405.2.5, C405.2.6, C405.2.7, C405.2.8, C408.4, and C501.6.

C503.7.4 New or moved lighting panel. 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, lighting controls shall also comply with, in addition to the requirements of Section C503.7.3, all remaining requirements in Sections C405.2, C408.4, and C501.6.

C503.7.5 Newly-created rooms. 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 lighting controls that comply with all applicable requirements in accordance with Sections C405.2.1, C405.2.2, C405.2.3, C405.2.4, C405.2.5, C405.2.6, C408.4 and C501.6.

C503.7.6 Motors. Motors that are altered or replaced shall comply with Section C405.8.

C503.7.7 Controlled receptacles. Where electric receptacles are added or replaced, controlled receptacles shall be provided in accordance with Section C405.10 and shall comply with Sections C408.4 and C501.6.

EXCEPTIONS:

1. Where an alteration project impacts an area smaller than 5,000 square feet, controlled receptacles are not required.
2. Where existing systems furniture or partial-height relocatable office cubical partitions are reconfigured or relocated within the same area, controlled receptacles are not required in the existing systems furniture or office cubicle partitions.
3. Where new or altered receptacles meet the exception to Section C405.10, they are not required to be controlled receptacles or be located within 12 inches of noncontrolled receptacles.

C503.8 Refrigeration systems. Components of existing refrigeration systems that are altered or replaced shall comply with Sections C408.7, C410 and C501.6. Additions or alterations shall not be made to an existing refrigeration system that will cause the existing system to become out of compliance. All new refrigerated spaces and refrigeration systems and equipment in existing buildings, including new refrigerated display cases, shall comply with Sections C408.7, C409.5, C410 and C501.6.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-50300, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-50300, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-50300, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27A and 19.27 RCW. WSR 19-02-089, § 51-11C-50300, filed 1/2/19, effective 7/1/19. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-24-070, § 51-11C-50300, filed 12/6/16, effective 5/1/17; WSR 16-13-089, § 51-11C-50300, filed 6/15/16, effective 7/16/16. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-50300, filed 1/19/16, effective 7/1/16.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

AMENDATORY SECTION (Amending WSR 22-14-091, 23-12-101, and 23-20-021 [20-21-080], filed 7/1/22, 6/7/23, and 9/25/23 [10/19/20], effective 3/15/24 [2/1/21])

WAC 51-11C-80500 Appendix D—Calculation of HVAC total system performance ratio.

D101 Scope. This appendix establishes criteria for demonstrating compliance using the *HVAC total system performance ratio (HVAC TSPR)* for systems serving office (including medical offices), retail, library and education occupancies and buildings, which are subject to the requirements of Section C403.3.5 without exceptions, and *dwelling units* and common areas within multifamily buildings. Those HVAC systems shall comply with Section C403 and this appendix as required by Section C403.1.1.

D101.1 Core and Shell/Initial Build-Out, and Future System Construction Analysis.

Where the *building* permit applies to only a portion of the *HVAC system* in a *building* and the remaining components will be designed under a future *building* permit or were previously installed, the future or previously installed components shall be modeled as follows:

1. Where the HVAC zones that do not include HVAC systems in the current permit will be or are served by independent systems, then the block including those zones shall not be included in the model.
2. Where the HVAC zones that do not include complete HVAC systems in the permit are intended to receive HVAC services from systems in the permit, their proposed zonal systems shall be modeled with equip-

ment that meets, but does not exceed, the requirements of Section C403.

3. Where the zone equipment in the permit receives HVAC services from previously installed systems that are not in the permit, the previously installed systems shall be modeled with equipment matching the certified value of what is installed or equipment that meets the requirements of Section C403.

4. Where the central plant heating and cooling equipment is completely replaced and HVAC zones with existing systems receive HVAC services from systems in the permit, their proposed zonal systems shall be modeled with equipment that meets, but does not exceed, the requirements of Section C403.

- Informative Notes:*
1. Examples of HVAC systems that are intended to receive HVAC services from systems in the permit include future zonal water source heat pumps that will receive loop water that is heated by a boiler or cooled by a cooling tower included in the permit, any system that will receive outdoor ventilation air from a dedicated outdoor air system included in the permit, and future zone terminal units that will be connected to a central VAV system included in the permit.
 2. An initial build-out with heating coils served from a previously installed system with a high-efficiency condensing boiler would use the installed efficiency if it exceeded the current requirements. If the installed boiler had a lower efficiency than the current requirements, the current requirement would be used.
 3. A partial central plant upgrade (e.g., chiller, but not boiler replacement) cannot use this method.

D201 Compliance. Compliance based on *HVAC total system performance ratio* requires that the provisions of Section C403.3 are met and the *HVAC total system performance ratio* of the *proposed design* is more than or equal to the *HVAC total system performance ratio* of the *standard reference design*. The *HVAC TSPR* is calculated according to the following formula:

$$\text{HVAC TSPR} = \frac{\text{annual heating and cooling load}}{\text{annual carbon emissions from energy consumption of the building HVAC systems}}$$

Where:

Annual carbon emissions from energy consumption of the building HVAC systems = sum of the annual carbon emissions in pounds for heating, cooling, fans, energy recovery, pumps, and heat rejection calculated by multiplying site energy consumption by the carbon emission factors from Table ((C407.3) D201)

Annual heating and cooling load = sum of the annual heating and cooling loads met by the building HVAC system in thousands of Btus.

Table ((C407.3(1) (Reprinted from Chapter 4)) D201 Carbon Emissions Factors

| Type | CO ₂ e (lb/unit) | Unit |
|---------------------------------------|-----------------------------|--------|
| Electricity | 0.44 | kWh |
| Natural gas | 11.70 | Therm |
| Oil | 19.2 | Gallon |
| Propane | 10.5 | Gallon |
| Other ^a | 195.00 | mmBtu |
| On-site renewable energy ^b | 0.00 | |

^a District energy systems may use alternative emissions factors supported by calculations approved by the *code official*.

^b Not applicable to TSPR calculation in Appendix D.

D300 Simulation program.

D301 General.

D302 Calculation of the HVAC TSPR for the *Standard Reference Design*.

The simulation program shall calculate the HVAC TSPR based only on the input for the *proposed design* and the requirements of this appendix. The calculation procedure shall not allow the user to directly modify the building component characteristics of the *standard reference design*.

D303 Specific approval. Performance analysis tools meeting the applicable subsections of Appendix D 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.

D400 Climatic data. The simulation program shall perform the simulation using hourly values of climatic data, such as temperature and humidity, using TMY3 data for the site as specified here: <https://buildingenergyscore.energy.gov/resources>

D500 Documentation. Documentation conforming to the provisions of this section shall be provided to the *code official*.

D501 Compliance report. Building permit submittals shall include:

1. A report produced by the simulation software that includes the following:

1.1 Address of the building.

1.2 Name of individual completing the compliance report.

1.3 Name and version of the compliance software tool.

1.4 The dimensions, floor heights and number of floors for each *block*.

1.5 By *block*, the *U*-factor, *C*-factor, or *F*-factor for each simulated opaque envelope component and the *U*-factor and SHGC for each fenestration component.

1.6 By *block* or by surface for each *block*, the fenestration area.

1.7 By *block*, a list of the HVAC equipment simulated in the *proposed design* including the equipment type, fuel type, equipment efficiencies and system controls.

1.8 Annual site HVAC energy use by end use for the *proposed* and *baseline* building.

1.9 Annual sum of heating and cooling loads for the *baseline* building.

1.10 The *HVAC total system performance ratio* for both the *standard reference design* and the *proposed design*.

2. A mapping of the actual building HVAC component characteristics and those simulated in the *proposed design* showing how individual pieces of HVAC equipment identified above have been combined into average inputs as required by Section D601.10 including:

2.1 Fans.

2.2 Hydronic pumps.

2.3 Air handlers.

2.4 Packaged cooling equipment.

2.5 Furnaces.

- 2.6 Heat pumps.
- 2.7 Boilers.
- 2.8 Chillers.
- 2.9 Cooling towers.
- 2.10 Electric resistance coils.
- 2.11 Condensing units.
- 2.12 Motors for fans and pumps.
- 2.13 Energy recovery devices.

For each piece of equipment identified above, include the following as applicable:

- 2.14 Equipment name or tag consistent with that found on the design documents.
- 2.15 Rated efficiency level.
- 2.16 Rated capacity.
- 2.17 Electrical input power for fans and pumps (before any speed or frequency control device) at design conditions and calculation of input value (W/cfm or W/gpm).

3. Floor plan of the building identifying how portions of the building are assigned to the simulated *blocks* and areas of the building that are not covered under the requirements of Section C403.1.1.

D600 Calculation procedure. Except as specified by this appendix, the *standard reference design* and *proposed design* shall be configured and analyzed using identical methods and techniques.

D601 Simulation of the proposed building design. The *proposed design* shall be configured and analyzed as specified in this section.

D601.1 Block geometry. The geometry of buildings shall be configured using one or more *blocks*. Each *block* shall define attributes including *block* dimensions, number of floors, floor to floor height and floor to ceiling height. Simulation software may allow the use of simplified shapes (such as rectangle, L shape, H shape, U shape or T shape) to represent *blocks*. Where actual building shape does not match these predefined shapes, simplifications are permitted providing the following requirements are met:

1. The conditioned floor area and volume of each block shall match the *proposed design* within 10 percent.
2. The area of each exterior envelope component from Table C402.1.4 is accounted for within 10 percent of the actual design.
3. The area of vertical fenestration and skylights is accounted for within 10 percent of the actual design.
4. The orientation of each component in 2 and 3 above is accounted for within 45 degrees of the actual design.

The creation of additional *blocks* may be necessary to meet these requirements.

EXCEPTION: Portions of the building that are unconditioned or served by systems not covered by the requirements of Section C403.1.1 shall be omitted.

D601.1.1 Number of blocks. One or more *blocks* may be required per building based on the following restrictions:

1. Each *block* can have only one occupancy type (multifamily dwelling unit, multifamily common area, office, library, education or retail). Therefore, at least one single *block* shall be created for each unique use type.

2. Each *block* can be served by only one type of HVAC system. Therefore, a single *block* shall be created for each unique HVAC system and use type combination. Multiple HVAC units of the same type may be represented in one *block*. Section D601.10.2 provides directions for

combining multiple HVAC units or components of the same type into a single *block*.

3. Each *block* can have a single definition of floor to floor or floor to ceiling heights. Where floor heights differ by more than 2 feet, unique *blocks* should be created for the floors with varying heights.

4. Each *block* can include either above grade or below grade floors. For buildings with both above grade and below grade floors, separate *blocks* should be created for each. For buildings with floors partially above grade and partially below grade, if the total wall area of the floor(s) in consideration is greater than or equal to 50 percent above grade, then it should be simulated as a completely above grade *block*, otherwise it should be simulated as a below grade *block*.

5. Each wall on a façade of a *block* shall have similar vertical fenestration. The product of the *proposed design U-factor* times the area of windows (UA) on each façade of a given floor cannot differ by more than 15 percent of the average UA for that façade in each *block*. The product of the *proposed design SHGC* times the area of windows (SHGCA) on each façade of a given floor cannot differ by more than 15 percent of the average SHGCA for that façade in each *block*. If either of these conditions are not met, additional *blocks* shall be created consisting of floors with similar fenestration.

6. For a building model with multiple *blocks*, the *blocks* should be configured together to have the same adjacencies as the actual building design.

D601.2 Thermal zoning. Each floor in a *block* shall be modeled as a single thermal zone or as five thermal zones consisting of four perimeter zones and a core zone. Below grade floors shall be modeled as a single thermal *block*. If any façade in the *block* is less than 45 feet in length, there shall only be a single thermal zone per floor. Otherwise each floor shall be modeled with 5 thermal zones. A perimeter zone shall be created extending from each façade to a depth of 15 feet. Where facades intersect, the zone boundary shall be formed by a 45 degree angle with the 2 facades. The remaining area on each floor shall be modeled as a core zone with no exterior walls.

D601.3 Occupancy.

D601.3.1 Occupancy type. The occupancy type for each *block* shall be consistent with the building area type as determined in accordance with Section C405.4.2.1. Portions of the building that are building area types other than multifamily *dwelling unit*, multifamily common area, office, school (education), library, or retail shall not be included in the simulation. Surfaces adjacent to such building portions shall be modeled as adiabatic in the simulation program.

D601.3.2 Occupancy schedule, density, and heat gain. The occupant density, heat gain, and schedule shall be for multifamily, office, retail, library, or school as specified by ASHRAE Standard 90.1 Normative Appendix C.

D601.4 Envelope components.

D601.4.1 Roofs. Roofs will be modeled with insulation above a steel roof deck. The roof *U-factor* and area shall be modeled as in the proposed design. If different roof thermal properties are present in a single *block*, an area weighted *U-factor* shall be used. Roof solar absorbance shall be modeled at 0.70 and emittance at 0.90.

D601.4.2 Above grade walls. Walls will be modeled as steel frame construction. The *U*-factor and area of above grade walls shall be modeled as in the *proposed design*. If different wall constructions exist on the façade of a *block* an area-weighted *U*-factor shall be used.

D601.4.3 Below grade walls. The *C*-factor and area of below grade walls shall be modeled as in the *proposed design*. If different slab on grade floor constructions exist in a *block*, an area-weighted *C*-factor shall be used.

D601.4.4 Above grade exterior floors. Exterior floors shall be modeled as steel frame. The *U*-factor and area of floors shall be modeled as in the *proposed design*. If different wall constructions exist in the block an area-weighted *U*-factor shall be used.

D601.4.5 Slab on grade floors. The *F*-factor and area of slab on grade floors shall be modeled as in the *proposed design*. If different below grade wall constructions exist in a *block*, an area-weighted *F*-factor shall be used.

D601.4.6 Vertical fenestration. The window area and area weighted *U*-factor and SHGC shall be modeled for each façade based on the *proposed design*. Each exterior surface in a *block* must comply with Section D601.1.1 item 5. Windows will be combined in to a single window centered on each façade based on the area and sill height input by the user. When different *U*-factors, SHGC or sill heights exist on a single façade, area weighted average for each shall be input by the user.

D601.4.7 Skylights. The skylight area and area weighted *U*-factor and SHGC shall be modeled for each floor based the *proposed design*. Skylights will be combined in to a single skylight centered on the roof of each zone based on the area input by the user.

D601.4.8 Exterior shading. Permanent window overhangs shall be modeled. When windows with and without overhangs or windows with different overhang projection factors exist on a façade, window width weighted projection factors shall be input by the user as follows.

$$P_{avg} = \frac{A_1 \times L_{o1} + A_2 \times L_{o2} \dots A_n \times L_{on}}{L_{w1} + L_{w2} \dots L_{wn}}$$

Where:

- P_{avg} = Average overhang projection modeled in the simulation tool.
- 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.
- L_o = Length off the overhang.
- L_w = Length of the window.

D601.5 Lighting. Interior lighting power density shall be equal to the allowance in Table C405.4.2(1) for multifamily, office, retail, library, or school. The lighting schedule shall be for multifamily, office, retail, library, or school as specified by ASHRAE Standard 90.1 Normative Appendix C. The impact of lighting controls is assumed to be captured by the lighting schedule and no explicit controls shall be modeled. Exterior lighting shall not be modeled.

D601.6 Miscellaneous equipment. The miscellaneous equipment schedule and power shall be for multifamily, office, retail, library, or school as specified by ASHRAE Standard 90.1 Normative Appendix C. The impact of miscellaneous equipment controls is assumed to be captured by the equipment schedule and no explicit controls shall be modeled.

EXCEPTIONS: 1. Multifamily *dwelling units* shall have a miscellaneous load density of 0.42 W/ft².
 2. Multifamily common areas shall have a miscellaneous load density of 0 W/ft².

D601.7 Elevators. Elevators shall not be modeled.

D601.8 Service water heating equipment. Service water heating shall not be modeled.

D601.9 On-site renewable energy systems. On-site renewable energy systems shall not be modeled.

D601.10 HVAC equipment. HVAC systems shall meet the requirements of Section C403.

D601.10.1 Supported HVAC systems. At a minimum, the HVAC systems shown in Table D601.10.1 shall be supported by the simulation program.

**Table D601.10.1
 Proposed Building HVAC Systems Supported by HVAC TSPR Simulation Software**

| System No. | System Name | System Abbreviation |
|------------|--|---------------------|
| 1 | Packaged Terminal Air Conditioner | PTAC |
| 2 | Packaged Terminal Air Heat Pump | PTHP |
| 3 | Packaged Single Zone Gas Furnace (includes split system) | PSZGF |
| 4 | Packaged Single Zone Heat Pump (air to air only) (includes split system) | PSZHP |
| 5 | Variable Refrigerant Flow (air cooled only) | VRF |
| 6 | Four Pipe Fan Coil | FPFC |
| 7 | Water Source Heat Pump | WSHP |
| 8 | Ground Source Heat Pump | GSHP |
| 9 | Packaged Variable Air Volume (dx cooling) | PVAV |
| 10 | Variable Air Volume (hydronic cooling) | VAV |
| 11 | Variable Air Volume with Fan Powered Terminal Units | VAVFPTU |
| 12 | Dedicated Outdoor Air System (in conjunction with systems 1-8) | DOAS |

D601.10.2 Proposed building HVAC system simulation. The HVAC systems shall be modeled as in the *proposed design* with clarifications and simplifications as described in Table D601.10.2. System parameters not described in the following sections shall be simulated to meet the minimum requirements of Section C403. All zones within a *block* shall

be served by the same HVAC system type as described in Section D601.1.1 item 2. Where multiple system components serve a block, average values weighed by the appropriate metric as described in this section shall be used. Heat loss from ducts and pipes shall not be modeled.

1. Where multiple fan systems serve a single block, fan power shall be based on weighted average using the design supply air cfm.
2. Where multiple cooling systems serve a single block, COP shall be based on a weighted average using cooling capacity. DX coils shall be entered as multi-stage if more than 50% of coil capacity serving the block is multi-stage with staged controls.
3. Where multiple heating systems serve a single block, thermal efficiency or heating COP shall be based on a weighted average using heating capacity.
4. Where multiple boilers or chillers serve a heating water or chilled water loop, efficiency shall be based on a weighted average for using heating or cooling capacity.
5. When multiple cooling towers serving a condenser water loop are combined, the cooling tower efficiency, cooling tower design approach and design range are based on a weighted average of the design water flow rate through each cooling tower.
6. Where multiple pumps serve a heating water, chilled water or condenser water loop, pump power shall be based on a weighted average for using design water flow rate.
7. When multiple system types with and without economizers are combined, the economizer maximum outside air fraction of the combined system shall be based on weighted average of 100% supply air for systems with economizers and design outdoor air for systems without economizers.
8. Multiple systems with and without ERVs cannot be combined.
9. Systems with and without supply air temperature reset cannot be combined.
10. Systems with different fan control (constant volume, multi-speed or VAV) for supply fans cannot be combined.
11. Demand Controlled Ventilation (DCV) shall be modeled using a simplified approach that adjusts the design outdoor supply air flow rate based on the area of the building that is covered by DCV.

**Table D601.10.2
Proposed Building System Parameters**

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|-------------------------|--|-----------------------|--|--------------------|
| HVAC System Type | System Type | User Defined | Selected from Table D601.10.1 | All |
| System Sizing | Design Day Information | Fixed | 99.6 percent heating design and 1 percent dry-bulb and 1 percent wet-bulb cooling design | All |
| | Zone Coil Capacity | Fixed | Sizing factors used are 1.25 for heating equipment and 1.15 for cooling equipment | All |
| | Supply Airflow | Fixed | Based on a supply-air-to-room-air temperature <i>set-point</i> difference of 20°F | 1-11 |
| | | Fixed | Equal to required outdoor air ventilation | 12 |
| Outdoor Ventilation Air | Portion of Supply Air with Proposed Filter ≥ MERV 13 | User Defined | Percentage of supply air flow subject to higher filtration (Adjusts baseline fan power higher. Prorated) | All |

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|-------------------------------|--|-----------------------|---|--------------------------------|
| | Outdoor Ventilation Air Flow Rate | Fixed | As specified in ASHRAE Standard 90.1 Normative Appendix C, adjusted for proposed DCV control | All |
| | Outdoor Ventilation Supply Air Flow Rate Adjustments | Fixed | Based on ASHRAE Standard 62.1 Section 6.2.4.3 system ventilation efficiency (E_{VS}) is 0.75 | 9-11 |
| | | Fixed | System ventilation efficiency (E_{VS}) is 1.0 | 1-8, 12 |
| | | Fixed | Base is 1.0 zone air distribution effectiveness | All |
| System Operation | Space Temperature Setpoints | Fixed | As specified in ASHRAE Standard 90.1 Normative Appendix C, except multifamily which shall use 68°F heating and 76°F cooling setpoints | 1-11 |
| | Fan Operation - Occupied | User Defined | Runs continuously during occupied hours or cycled to meet load. Multispeed fans reduce airflow related to thermal loads | 1-11 |
| | Fan Operation - Occupied | Fixed | Fan runs continuously during occupied hours | 12 |
| | Fan Operation - Night Cycle | Fixed | Fan cycles on to meet setback temperatures | 1-11 |
| Packaged Equipment Efficiency | DX Cooling Efficiency | User Defined | Cooling COP without fan energy calculated in accordance with ASHRAE Standard 90.1 Section 11.5.2c. ^b | 1, 2, 3, 4, 5, 7, 8, 9, 11, 12 |
| | DX Coil Number of Stages | User Defined | Single state or multistage | 3, 4, 9, 10, 11, 12 |
| | Heat Pump Efficiency | User Defined | Heating COP without fan energy calculated in accordance with ASHRAE Standard 90.1 Section 11.5.2c. ^c | 2, 4, 5, 7, 8 |
| | Furnace Efficiency | User Defined | Furnace thermal efficiency ^c | 3, 9, 11, 12 |
| Heat Pump Supplemental Heat | Control | Fixed | Supplemental electric heat locked out above 40°F. Runs in conjunction with compressor between 40°F and 0°F. | 2, 4 |
| System Fan Power and Controls | Part-Load Fan Controls | User Defined | Constant volume or two speed | 1-8 |
| | Part-Load Fan Controls ^a | User Defined | Constant volume or variable air volume | 12 |
| | Part-Load Fan Controls ^a | Fixed | Variable air volume. VFD with static pressure reset. | 9-11 |
| | Design Fan Power (W/cfm) | User Defined | Input electric power for all fans is required to operate at <i>fan system design conditions</i> divided by the supply airflow rate. This is a "wire to air" value including all drive, motor efficiency and other losses. | All |
| | Low-Speed Fan Power | User Defined | Low speed input electric power for all fans required to operate at low speed conditions divided by the low speed supply airflow rate. This is a "wire to air" value including all drive, motor efficiency and other losses. | 1-8 |

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|-------------------------------|--|-----------------------|---|---------------------|
| Variable Air Volume Systems | Supply Air Temperature (SAT) Controls | User Defined | If not SAT reset, constant at 55°F. Options for reset based on outdoor air temperature (OAT) or warmest zone. If warmest zone, then the user can specify the minimum and maximum temperatures. If OAT reset, SAT is reset higher to 60°F at outdoor low of 50°F. SAT is 55°F at outdoor high of 70°F. | 9, 10, 11 |
| | Minimum Terminal Unit Airflow Percentage | User Defined | Average minimum terminal unit airflow percentage for <i>block</i> weighted by cfm | 9, 10, 11 |
| | Terminal Unit Heating Source | User Defined | Electric or hydronic | 9, 10, 11 |
| | Dual Set Point Minimum VAV Damper Position | User Defined | Heating maximum airflow fractions | 9, 10 |
| | Fan Powered Terminal Unit (FPTU) Type | User Defined | Series or parallel FPTU | 11 |
| | Parallel FPTU Fan | Fixed | Sized for 50 percent peak primary air at 0.35 W/cfm | 11 |
| | Series FPTU Fan | Fixed | Sized for 50 percent peak primary air at 0.35 W/cfm | 11 |
| Economizer | Economizer Presence | User Defined | Yes or No | 3, 4, 9, 10, 11 |
| | Economizer Control Type | Fixed | Differential dry-bulb | 3, 4, 9, 10, 11 |
| Energy Recovery | Sensible Effectiveness | User Defined | Heat exchanger sensible effectiveness at design heating and cooling conditions | 3, 4, 9, 10, 11, 12 |
| | Latent Effectiveness | User Defined | Heat exchanger latent effectiveness at design heating and cooling conditions | 3, 4, 9, 10, 11, 12 |
| | Economizer Bypass | User Defined | If ERV is bypassed during economizer conditions | 3, 4, 9, 10, 11, 12 |
| | Bypass SAT Setpoint | User Defined | If bypass, target supply air temperature | 3, 4, 9, 10, 11, 12 |
| | Fan Power Reduction during Bypass (W/cfm) | User Defined | If ERV system include bypass, static pressure setpoint and variable speed fan, fan power can be reduced during economizer conditions | 3, 4, 9, 10, 11, 12 |
| Demand Controlled Ventilation | DCV Application | User Defined | Percent of block floor area under DCV control | 3, 4, 9, 10, 11, 12 |
| DOAS | DOAS Fan Power W/cfm | User Defined | Fan electrical input power in W/cfm of supply airflow | 12 |
| | DOAS Supplemental Heating and Cooling | User Defined | Heating source, cooling source | 12 |
| | Minimum SAT Setpoint (Cooling) | User Defined | SAT setpoint if DOAS includes supplemental cooling | 12 |
| | Minimum SAT Setpoint (Heating) | User Defined | SAT setpoint if DOAS includes supplemental heating | 12 |

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|---------------------|--|-----------------------|--|------------------------|
| Heating Plant | Boiler Efficiency | User Defined | Boiler thermal efficiency | 1, 6, 7, 9, 10, 11, 12 |
| | Heating Water Loop Configuration ^a | User Defined | Constant flow primary only; variable flow primary only; constant flow primary-variable flow secondary; variable flow primary and secondary | 1, 6, 7, 9, 10, 11, 12 |
| | Heating Water Primary Pump Power (W/gpm) | User Defined | Heating water primary pump input W/gpm heating water flow | 1, 6, 7, 9, 10, 11, 12 |
| | Heating Water Secondary Pump Power (W/gpm) | User Defined | Heating water secondary pump input W/gpm heating water flow (if primary/secondary) | 1, 6, 7, 9, 10, 11, 12 |
| | Heating Water Loop Temperature | User Defined | Heating water supply and return temperatures | 1, 6, 9, 10, 11, 12 |
| | Heating Water Loop Supply Temperature Reset Included | User Defined | Yes/No | 1, 6, 9, 10, 11, 12 |
| | Heating Water Loop Supply Temperature Reset | Fixed | Reset HWS by 27.3 percent of design delta-T (HWS - 70°F (21.1°C) space heating temperature set point) between 20°F (-6.7°C) and 50°F (10°C) OAT | 1, 6, 9, 10, 11, 12 |
| | Boiler Type | Fixed | Noncondensing boiler where input thermal efficiency is less than 86 percent; condensing boiler otherwise | 1, 6, 7, 9, 10, 11, 12 |
| Chilled Water Plant | Chiller Compressor Type | User Defined | Screw/scroll, centrifugal or reciprocating | 6,10, 11, 12 |
| | Chiller Condenser Type | User Defined | Air cooled or water cooled | 6, 10, 11, 12 |
| | Chiller Full Load Efficiency | User Defined | Chiller COP | 6, 10, 11, 12 |
| | Chilled Water Loop Configuration ^a | User Defined | Variable flow primary only, constant flow primary - variable flow secondary, variable flow primary and secondary | 6, 10, 11, 12 |
| | Chilled Water Primary Pump Power (W/gpm) | User Defined | Primary pump input W/gpm chilled water flow (if primary/secondary) | 6, 10, 11, 12 |
| | Chilled Water Secondary Pump Power (W/gpm) | User Defined | Secondary pump input W/gpm chilled water flow | 6, 10, 11, 12 |
| | Chilled Water Temperature Reset Included | User Defined | Yes/No | 6, 10, 11, 12 |
| | Chilled Water Temperature Reset Schedule (if included) | Fixed | Outdoor air reset: CHW supply temperature of 44°F at 80°F outdoor air dry-bulb and above, CHW supply temperature of 54°F at 60°F outdoor air dry-bulb temperature and below, ramped linearly between | 6, 10, 11, 12 |
| | Condenser Water Pump Power (W/gpm) | User Defined | Pump input W/gpm condenser water flow | 6, 7, 8, 10, 11, 12 |
| | Condenser Water Pump Control | User Defined | Constant speed or variable speed | 6, 7, 8, 10, 11, 12 |
| | Cooling Tower Efficiency | User Defined | gpm/hp tower fan | 6, 7, 10, 11, 12 |

| Category | Parameter | Fixed or User Defined | Required | Applicable Systems |
|------------------------------------|---------------------------------------|-----------------------|--|--------------------|
| | Cooling Tower Fan Control | User Defined | Constant or variable speed | 6, 7, 10, 11, 12 |
| | Cooling Tower Approach and Range | User Defined | Design cooling tower approach and range temperature | 6, 7, 10, 11, 12 |
| Heat Pump Loop Flow Control | Loop Flow and Heat Pump Control Valve | Fixed | Two position valve with VFD on pump. Loop flow at 3 gpm/ton | 7, 8 |
| Heat Pump Loop Temperature Control | | User Defined | Restrict to minimum 20°F and maximum 40°F temperature difference | 7 |
| GLHP Well Field | | Fixed | Bore depth = 250 feet Bore length 200 feet/ton for greater of cooling or heating load Bore spacing = 15 feet Bore diameter = 5 inches 3/4 inch Polyethylene pipe Ground and grout conductivity = 4.8 Btu-in/h-ft ² -°F | 8 |

^a Part load fan power and pump power modified in accordance with Table D601.10.3.

**Table D601.10.3
Fan and Pump Power Curve Coefficients**

| Equation Term | Fan Power Coefficients | Pump Power Coefficients | |
|----------------|------------------------|-------------------------|----------------------|
| | VSD + SP Reset | Ride Pump Curve | VSD + DP/Valve Reset |
| b | 0.0408 | 0 | 0 |
| x | 0.088 | 3.2485 | 0.0205 |
| x ² | -0.0729 | -4.7443 | 0.4101 |
| x ³ | 0.9437 | 2.5295 | 0.5753 |

D602 Simulation of the standard reference design. The *standard reference design* shall be configured and analyzed as specified in this section.

D602.1 Utility rates. Same as proposed.

D602.2 Blocks. Same as proposed.

D602.3 Thermal zoning. Same as proposed.

D602.4 Occupancy type, schedule, density, and heat gain. Same as proposed.

D602.5 Envelope components. Same as proposed.

D602.6 Lighting. Same as proposed.

D602.7 Miscellaneous equipment. Same as proposed.

D602.8 Elevators. Not modeled. Same as proposed.

D602.9 Service water heating equipment. Not modeled. Same as proposed.

D602.10 On-site renewable energy systems. Not modeled. Same as proposed.

D602.11 HVAC equipment. The *standard reference design* HVAC equipment consists of separate space conditioning systems and dedicated outside air systems as described in Table D602.11 for the appropriate building occupancies.

**Table D602.11
Standard Reference Design HVAC Systems**

| Parameter | Building Type | | | | |
|--|----------------------------|---|-------------------------------|-------------------------------|-------------------------------|
| | Large Office ^a | Small Office and Libraries ^a | Retail | School | Multifamily |
| System Type | Water-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump | Packaged air-source Heat Pump |
| Fan Control ^b | Cycle on Load | Cycle on Load | Cycle on Load | Cycle on Load | Cycle on Load |
| Space Condition Fan Power (W/cfm) Proposed < MERV 13 | 0.528 | 0.528 | 0.522 | 0.528 | 0.528 |
| Space Condition Fan Power (W/cfm) Proposed ≥ MERV 13 | 0.634 | 0.634 | 0.634 | 0.634 | 0.634 |
| Heating/Cooling Sizing Factor ^c | 1.25/1.15 | 1.25/1.15 | 1.25/1.15 | 1.25/1.15 | 1.25/1.15 |
| Supplemental Heating Availability | NA | <40°F | <40°F | <40°F | <40°F |
| Modeled cooling COP (Net of Fan) ^d | 4.46 | 3.83 | 4.25 | 3.83 | 3.83 |
| Modeled heating COP (Net of Fan) ^d | 4.61 | 3.81 | 3.57 | 3.81 | 3.86 |
| Cooling Source | DX (Heat Pump) | DX (Heat Pump) | DX (Heat Pump) | DX (Heat Pump) | DX (Heat Pump) |
| Heat Source | Heat Pump | Heat Pump | Heat Pump | Heat Pump | Heat Pump |
| Number of Stages of Cooling | Single | Single | Two | Single | Single |
| OSA Economizer ^e | No | No | Yes | Yes | Yes |
| Occupied Ventilation Source ^f | DOAS | DOAS | DOAS | DOAS | DOAS |
| DOAS Fan Power (W/cfm of Outside Air) | 0.819 | 0.819 | 0.730 | 0.742 | 0.780 |
| DOAS Fan Power (W/cfm) Proposed ≥ MERV 13 | 1.042 | 1.042 | 0.928 | 0.944 | 0.944 |
| DOAS Temperature Control ^{g, h} | Bypass | Wild | Bypass | Bypass | Wild |
| ERV Efficiency (Sensible Only) | 70 percent | 70 percent | 70 percent | 70 percent | 70 percent |
| WSHP Loop Heat Rejection | Cooling Tower ⁱ | NA | NA | NA | NA |
| WSHP Loop Heat Source | Gas Boiler ^j | NA | NA | NA | NA |
| WSHP Loop Temperature Control ^k | 50°F to 70°F | NA | NA | NA | NA |
| WSHP Circulation Pump W/gpm ^l | 16 | NA | NA | NA | NA |
| WSHP Loop Pumping Control ^m | HP Valves & Pump VSD | NA | NA | NA | NA |

^a Offices less than 50,000 square feet use "Small Office" parameters; otherwise use "Large Office" parameters.

^b Space conditioning system shall cycle on to meet heating and cooling setpoint schedules as specified in ASHRAE Standard 90.1 Normative Appendix C. One space conditioning system is modeled in each zone. Conditioning system fan operation is not necessary for ventilation delivery.

^c The equipment capacities (i.e., system coil capacities) for the *standard reference design* building design shall be based on design day sizing runs and shall be oversized by 15 percent for cooling and 25 percent for heating.

^d COPs shown are direct heating or cooling performance and do not include fan energy use. See ASHRAE 90.1 Appendix G (G3.1.2.1) for separation of fan from COP in packaged equipment for units where the efficiency rating includes fan energy (e.g., SEER, EER, HSPF, COP).

^e Economizer on space conditioning systems shall be simulated when outdoor air conditions allow free cooling. Economizer high limit shall be based on differential dry-bulb control. DOAS system continues to operate during economizer mode.

^f Airflow equal to the outside air ventilation requirements is supplied and exhausted through a separate DOAS system including a supply fan, exhaust fan and sensible only heat exchanger. No additional heating or cooling shall be provided by the DOAS. A single DOAS system will be provided for each *block*. The DOAS supply and return fans shall run whenever the HVAC system is scheduled to operate in accordance with ASHRAE 90.1 Normative Appendix C.

^g "Wild" DOAS control indicates no active control of the supply air temperature leaving the DOAS system. Temperature will fluctuate based only on entering and leaving conditions and the effectiveness of ERV.

^h "Bypass" DOAS control includes modulating dampers to bypass ERV with the intent to maintain supply air temperature at a maximum of 60°F when outside air is below 75°F. Once outside air is above 75°F, bypass dampers will be fully closed.

ⁱ Includes a single axial fan cooling tower with variable speed fans at 40.2 gpm/hp, sized for an approach of 10°F and a range of 10°F.

^j Includes a single natural draft boiler with 80 percent E_t .

^k Loop boiler and heat rejection shall be controlled to maintain loop temperature entering heat pumps between 50°F and 70°F.

^l Pump motor input power shall be 16 W/gpm.

^m Loop flow shall be variable with variable speed drive pump and unit fluid flow shutoff at each heat pump when its compressor cycles off.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-80500, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-80500, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-80500, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-80500, filed 1/19/16, effective 7/1/16.]

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

WSR 23-21-108

PROPOSED RULES

DEPARTMENT OF REVENUE

[Filed October 18, 2023, 11:02 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 23-17-039.

Title of Rule and Other Identifying Information: WAC 458-40-540 Forest land values—2023 and 458-40-660 Timber excise tax—Stumpage value tables—Stumpage value adjustments.

Hearing Location(s): On November 29, 2023, at 9 a.m., internet/phone via Zoom. Please contact Cathy Holder at CathyH@dor.wa.gov for login/dial-in information.

Date of Intended Adoption: December 8, 2023.

Submit Written Comments to: Tiffany Do, P.O. Box 47453, Olympia, WA 98504-7453, email TiffanyD@dor.wa.gov, fax 360-534-1606, by December 1, 2023.

Assistance for Persons with Disabilities: Contact Julie King, phone 360-704-5733, TTY 800-833-6384.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: RCW 84.33.091 requires the department to revise the stumpage value tables every six months. The department establishes the stumpage value tables to apprise timber harvesters of the timber values used to calculate the timber excise tax, WAC 458-40-660. The values in the proposed rule will apply January 1 through June 30, 2024.

RCW 84.33.140 requires that forest land values be adjusted annually by a statutory formula contained in RCW 84.33.140(3). The department proposes amending the forest land values rule (WAC 458-40-540) to adjust the table of forest land values in Washington as required by statute. County assessors will use these published land values for property tax purposes in 2024.

Reasons Supporting Proposal: This proposal provides the revised stumpage value tables for January 1 through June 30, 2024, and the forest land values for 2024.

Statutory Authority for Adoption: RCW 82.01.060(2) and 84.33.096.

Statute Being Implemented: RCW 84.33.091 and 84.33.140.

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

Name of Proponent: Department of revenue, governmental.

Name of Agency Personnel Responsible for Drafting: Tiffany Do, 6400 Linderson Way S.W., Tumwater, WA, 360-534-1558; Implementation and Enforcement: Heidi Geathers, 6400 Linderson Way S.W., Tumwater, WA, 360-534-1615.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Tiffany Do, Interpretations and Technical Advice Division, P.O. Box 47453, Olympia, WA 98504-7453, phone 360-534-1558, fax 360-534-1606.

Scope of exemption for rule proposal from Regulatory Fairness Act requirements:

Is not exempt.

The proposed rule does not impose more-than-minor costs on businesses. Following is a summary of the agency's analysis showing how costs were calculated. The proposed rule does not impose more-than-minor costs on businesses, as it does not propose any new requirements

not already provided for in statute. The proposed rule does not impose fees, filing requirements, or recordkeeping guidelines that are not already established in statute.

October 18, 2023
 Atif Aziz
 Rules Coordinator

OTS-5034.1

AMENDATORY SECTION (Amending WSR 23-02-049, filed 1/2/23, effective 1/2/23)

WAC 458-40-540 Forest land values—((2023)) 2024. The forest land values, per acre, for each grade of forest land for the ((2023)) 2024 assessment year are determined to be as follows:

| LAND GRADE | OPERABILITY CLASS | ((2023)) 2024 VALUES PER ACRE |
|------------|-------------------|----------------------------------|
| 1 | 1 | ((224)) <u>227</u> |
| | 2 | ((222)) <u>225</u> |
| | 3 | ((208)) <u>211</u> |
| | 4 | ((152)) <u>154</u> |
| 2 | 1 | ((191)) <u>194</u> |
| | 2 | ((184)) <u>187</u> |
| | 3 | ((177)) <u>180</u> |
| | 4 | ((125)) <u>127</u> |
| 3 | 1 | ((148)) <u>150</u> |
| | 2 | ((144)) <u>146</u> |
| | 3 | ((142)) <u>144</u> |
| | 4 | ((109)) <u>111</u> |
| 4 | 1 | ((115)) <u>117</u> |
| | 2 | ((110)) <u>112</u> |
| | 3 | ((109)) <u>111</u> |
| | 4 | ((83)) <u>84</u> |
| 5 | 1 | ((83)) <u>84</u> |
| | 2 | ((73)) <u>74</u> |
| | 3 | ((72)) <u>73</u> |
| | 4 | ((51)) <u>52</u> |
| 6 | 1 | ((42)) <u>43</u> |
| | 2 | ((40)) <u>41</u> |
| | 3 | ((40)) <u>41</u> |
| | 4 | ((38)) <u>39</u> |
| 7 | 1 | 19 |
| | 2 | 19 |
| | 3 | 17 |
| | 4 | 17 |
| 8 | 1 | 1 |

[Statutory Authority: RCW 82.01.060(2), 84.33.096, 84.33.091, and 84.33.140. WSR 23-02-049, § 458-40-540, filed 1/2/23, effective 1/2/23; WSR 22-01-185, § 458-40-540, filed 12/20/21, effective 1/1/22; WSR 21-02-020, § 458-40-540, filed 12/28/20, effective 1/1/21. Statutory Authority: RCW 82.01.060(2) and 84.33.096. WSR 20-02-053, § 458-40-540, filed 12/23/19, effective 1/1/20; WSR 19-02-069, §

458-40-540, filed 12/28/18, effective 1/1/19. Statutory Authority: RCW 82.01.060(2), 82.32.300, and 84.33.096. WSR 18-02-058, § 458-40-540, filed 12/29/17, effective 1/1/18; WSR 17-02-003, § 458-40-540, filed 12/22/16, effective 1/1/17; WSR 16-01-069, § 458-40-540, filed 12/14/15, effective 1/1/16. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, 84.33.091, and 84.33.140. WSR 15-01-095, § 458-40-540, filed 12/17/14, effective 1/1/15. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, and 84.33.091. WSR 14-01-097, § 458-40-540, filed 12/17/13, effective 1/1/14; WSR 13-02-034, § 458-40-540, filed 12/21/12, effective 1/1/13. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, 84.33.091 and 84.33.140. WSR 12-02-040, § 458-40-540, filed 12/29/11, effective 1/1/12. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, and 84.33.091. WSR 11-02-019, § 458-40-540, filed 12/29/10, effective 1/1/11; WSR 10-02-031, § 458-40-540, filed 12/29/09, effective 1/1/10; WSR 09-02-044, § 458-40-540, filed 12/31/08, effective 1/1/09; WSR 08-02-063, § 458-40-540, filed 12/28/07, effective 1/1/08; WSR 07-02-038, § 458-40-540, filed 12/26/06, effective 1/1/07. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, and 84.33.140. WSR 06-02-006, § 458-40-540, filed 12/22/05, effective 1/1/06; WSR 05-02-037, § 458-40-540, filed 12/30/04, effective 1/1/05. Statutory Authority: RCW 82.32.300 and 84.33.140. WSR 04-02-018, § 458-40-540, filed 12/30/03, effective 1/1/04. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, 84.33.091, and 84.33.140. WSR 03-02-004, § 458-40-540, filed 12/19/02, effective 1/1/03. Statutory Authority: RCW 82.32.300, 84.33.096, 84.33.091 and 84.33.120. WSR 02-02-033, § 458-40-540, filed 12/24/01, effective 1/1/02. Statutory Authority: RCW 82.32.300, 84.33.096 and 84.33.120. WSR 01-02-018, § 458-40-540, filed 12/21/00, effective 1/1/01; WSR 00-02-018, § 458-40-540, filed 12/27/99, effective 1/1/00; WSR 99-02-030, § 458-40-540, filed 12/30/98, effective 1/1/99; WSR 98-02-014, § 458-40-540, filed 12/30/97, effective 1/1/98; WSR 97-07-041, § 458-40-540, filed 3/14/97, effective 4/14/97; WSR 96-02-055, § 458-40-540, filed 12/29/95, effective 1/1/96. Statutory Authority: RCW 82.32.300 and 84.33.120. WSR 95-02-039, § 458-40-540, filed 12/30/94, effective 1/1/95. Statutory Authority: RCW 82.32.300. WSR 94-02-046, § 458-40-540, filed 12/30/93, effective 1/1/94. Statutory Authority: RCW 84.33.120. WSR 93-02-024, § 458-40-540, filed 12/31/92, effective 1/1/93; WSR 91-24-026, § 458-40-540, filed 11/26/91, effective 1/1/92. Statutory Authority: RCW 84.33.120 and 84.08.010. WSR 90-24-012, § 458-40-540, filed 11/27/90, effective 12/28/90; WSR 89-23-095, § 458-40-540, filed 11/21/89, effective 12/22/89. Statutory Authority: RCW 84.33.120 and 84.33.130. WSR 88-23-055 (Order FT-88-3), § 458-40-540, filed 11/15/88; WSR 87-22-068 (Order FT-87-3), § 458-40-540, filed 11/4/87. Statutory Authority: Chapter 84.33 RCW. WSR 87-02-023 (Order 86-4), § 458-40-540, filed 12/31/86.]

AMENDATORY SECTION (Amending WSR 23-14-011, filed 6/22/23, effective 7/1/23)

WAC 458-40-660 Timber excise tax—Stumpage value tables—Stumpage value adjustments. (1) **Introduction.** This rule provides stumpage value tables and stumpage value adjustments used to calculate the amount of a harvester's timber excise tax.

(2) **Stumpage value tables.** The following stumpage value tables are used to calculate the taxable value of stumpage harvested from ~~((July 1 through December 31, 2023))~~ January 1 through June 30, 2024:

Washington State Department of Revenue
WESTERN WASHINGTON STUMPAGE VALUE TABLE
 ((July 1 through December 31, 2023))
January 1 through June 30, 2024

Stumpage Values per Thousand Board Feet Net Scribner Log Scale⁽¹⁾
 Starting January 1, 2019, there are no Haul Zone adjustments.

| Species Name | Species Code | SVA (Stumpage Value Area) | Stumpage Values |
|--|--------------|------------------------------|--|
| Douglas-fir ⁽²⁾ | DF | 1 | ((\$541)) <u>\$511</u> |
| | | 2 | ((530)) <u>528</u> |
| | | 3 | ((593)) <u>579</u> |
| | | 4 | ((580)) <u>585</u> |
| | | 5 | ((615)) <u>549</u> |
| | | 9 | ((527)) <u>497</u> |
| Western Hemlock and Other Conifer ⁽³⁾ | WH | 1 | ((292)) <u>261</u> |
| | | 2 | ((347)) <u>315</u> |
| | | 3 | ((346)) <u>333</u> |
| | | 4 | ((355)) <u>312</u> |
| | | 5 | ((345)) <u>327</u> |
| | | 9 | ((278)) <u>247</u> |
| Western Redcedar ⁽⁴⁾ | RC | 1-5 | ((1,380)) <u>1,173</u> |
| | | 9 | ((1,366)) <u>1,159</u> |
| Ponderosa Pine ⁽⁵⁾ | PP | 1-5 | ((152)) <u>163</u> |
| | | 9 | ((138)) <u>149</u> |
| Red Alder | RA | 1-5 | ((597)) <u>511</u> |
| | | 9 | ((583)) <u>497</u> |
| Black Cottonwood | BC | 1-5 | ((4)) <u>6</u> |
| | | 9 | 1 |
| Other Hardwood | OH | 1-5 | ((232)) <u>170</u> |
| | | 9 | ((218)) <u>156</u> |

| Species Name | Species Code | SVA (Stumpage Value Area) | Stumpage Values |
|--|--------------|---------------------------|---------------------------|
| Douglas-fir Poles & Piles | DFL | 1-5 | ((970)) <u>975</u> |
| | | 9 | ((956)) <u>961</u> |
| Western Redcedar Poles | RCL | 1-5 | ((1,825)) <u>1,918</u> |
| | | 9 | ((1,811)) <u>1,904</u> |
| Chipwood ⁽⁶⁾ | CHW | 1-5 | ((20)) <u>15</u> |
| | | 9 | ((18)) <u>13</u> |
| RC Shake & Shingle Blocks ⁽⁷⁾ | RCS | 1-9 | ((588)) <u>389</u> |
| Posts ⁽⁸⁾ | LPP | 1-9 | 0.35 |
| DF Christmas Trees ⁽⁹⁾ | DFX | 1-9 | 0.25 |
| Other Christmas Trees ⁽⁹⁾ | TFX | 1-9 | 0.50 |

- (1) Log scale conversions Western and Eastern Washington. See conversion methods WAC 458-40-680.
- (2) Includes Western Larch.
- (3) Includes all Hemlock, Spruce and true Fir species, or any other conifer not listed on this page.
- (4) Includes Alaska-Cedar.
- (5) Includes all Pines in SVA 1-5 & 9.
- (6) Stumpage value per ton.
- (7) Stumpage value per cord.
- (8) Includes Lodgepole posts and other posts, Stumpage value per 8 lineal feet or portion thereof.
- (9) Stumpage value per lineal foot.

Washington State Department of Revenue
EASTERN WASHINGTON STUMPAGE VALUE TABLE
 ((July 1 through December 31, 2023))
 January 1 through June 30, 2024

Stumpage Values per Thousand Board Feet Net Scribner Log Scale⁽¹⁾
 Starting January 1, 2019, there are no Haul Zone adjustments.

| Species Name | Species Code | SVA (Stumpage Value Area) | Stumpage Values |
|--|--------------|---------------------------|-------------------------|
| Douglas-fir ⁽²⁾ | DF | 6 | ((402)) <u>\$360</u> |
| | | 7 | ((416)) <u>374</u> |
| Western Hemlock and Other Conifer ⁽³⁾ | WH | 6 | ((274)) <u>256</u> |
| | | 7 | ((288)) <u>270</u> |

| Species Name | Species Code | SVA (Stumpage Value Area) | Stumpage Values |
|--|--------------|---------------------------------|--------------------------------------|
| Western Redcedar ⁽⁴⁾ | RC | 6 | ((1,200)) <u>879</u> |
| | | 7 | ((1,214)) <u>893</u> |
| Ponderosa Pine ⁽⁵⁾ | PP | 6 | ((138)) <u>149</u> |
| | | 7 | ((152)) <u>163</u> |
| Other Hardwood | OH | 6 | 1 |
| | | 7 | 9 |
| Western Redcedar Poles | RCL | 6 | ((1,623)) <u>1,486</u> |
| | | 7 | ((1,637)) <u>1,500</u> |
| Chipwood ⁽⁶⁾ | CHW | 6 | 1 |
| | | 7 | 1 |
| Small Logs ⁽⁶⁾ | SML | 6 | ((12)) <u>14</u> |
| | | 7 | ((14)) <u>16</u> |
| RC Shake & Shingle Blocks ⁽⁷⁾ | RCS | 6-7 | ((588)) <u>389</u> |
| Posts ⁽⁸⁾ | LPP | 6-7 | 0.35 |
| DF Christmas Trees ⁽⁹⁾ | DFX | 6-7 | 0.25 |
| Other Christmas Trees ⁽⁹⁾ | TFX | 6-7 | 0.50 |

(1) Log scale conversions Western and Eastern Washington. See conversion methods WAC 458-40-680.

(2) Includes Western Larch.

(3) Includes all Hemlock, Spruce and true Fir species, and Lodgepole Pine in SVA 6-7, or any other conifer not listed on this table.

(4) Includes Alaska-Cedar.

(5) Includes Western White Pine in SVA 6-7.

(6) Stumpage value per ton.

(7) Stumpage value per cord.

(8) Includes Lodgepole posts and other posts, Stumpage value per 8 lineal feet or portion thereof.

(9) Stumpage value per lineal foot.

(3) **Harvest value adjustments.** The stumpage values in subsection (2) of this rule for the designated stumpage value areas are adjusted for various logging and harvest conditions, subject to the following:

(a) No harvest adjustment is allowed for special forest products, chipwood, or small logs.

(b) Conifer and hardwood stumpage value rates cannot be adjusted below one dollar per MBF.

(c) Except for the timber yarded by helicopter, a single logging condition adjustment applies to the entire harvest unit. The taxpayer must use the logging condition adjustment class that applies to a majority (more than 50 percent) of the acreage in that harvest unit. If

the harvest unit is reported over more than one quarter, all quarterly returns for that harvest unit must report the same logging condition adjustment. The helicopter adjustment applies only to the timber volume from the harvest unit that is yarded from stump to landing by helicopter.

(d) The volume per acre adjustment is a single adjustment class for all quarterly returns reporting a harvest unit. A harvest unit is established by the harvester prior to harvesting. The volume per acre is determined by taking the volume logged from the unit excluding the volume reported as chipwood or small logs and dividing by the total acres logged. Total acres logged does not include leave tree areas (RMZ, UMZ, forested wetlands, etc.,) over two acres in size.

(e) A domestic market adjustment applies to timber which meet the following criteria:

(i) **Public timber** - Harvest of timber not sold by a competitive bidding process that is prohibited under the authority of state or federal law from foreign export may be eligible for the domestic market adjustment. The adjustment may be applied only to those species of timber that must be processed domestically. According to type of sale, the adjustment may be applied to the following species:

Federal Timber Sales: All species except Alaska-cedar. (Stat. Ref. - 36 C.F.R. 223.10)

State, and Other Nonfederal, Public Timber Sales: Western Redcedar only. (Stat. Ref. - 50 U.S.C. appendix 2406.1)

(ii) **Private timber** - Harvest of private timber that is legally restricted from foreign export, under the authority of The Forest Resources Conservation and Shortage Relief Act (Public Law 101-382), (16 U.S.C. Sec. 620 et seq.); the Export Administration Act of 1979 (50 U.S.C. App. 2406(i)); a Cooperative Sustained Yield Unit Agreement made pursuant to the act of March 29, 1944 (16 U.S.C. Sec. 583-583i); or Washington Administrative Code (WAC 240-15-015(2)) is also eligible for the Domestic Market Adjustment.

The following harvest adjustment tables apply from (~~July 1 through December 31, 2023~~) January 1 through June 30, 2024:

TABLE 9—Harvest Adjustment Table
Stumpage Value Areas 1, 2, 3, 4, 5, and 9
 (~~July 1 through December 31, 2023~~)
January 1 through June 30, 2024

| Type of Adjustment | Definition | Dollar Adjustment Per Thousand Board Feet Net Scribner Scale |
|-------------------------------|--|--|
| I. Volume per acre | | |
| Class 1 | Harvest of 30 thousand board feet or more per acre. | \$0.00 |
| Class 2 | Harvest of 10 thousand board feet to but not including 30 thousand board feet per acre. | -\$15.00 |
| Class 3 | Harvest of less than 10 thousand board feet per acre. | -\$35.00 |
| II. Logging conditions | | |
| Class 1 | Ground based logging a majority of the unit using tracked or wheeled equipment or draft animals. | \$0.00 |
| Class 2 | Logging a majority of the unit: Using an overhead system of winch-driven cables and/or logging on slopes greater than 45% using tracked or wheeled equipment supported by winch-driven cables. | -\$85.00 |

| Type of Adjustment | Definition | Dollar Adjustment Per Thousand Board Feet Net Scribner Scale |
|--------------------------------|---|--|
| Class 3 | Applies to logs yarded from stump to landing by helicopter. This does not apply to special forest products. | -\$200.00 |
| III. Remote island adjustment: | | |
| | For timber harvested from a remote island | -\$50.00 |
| IV. Thinning | | |
| | A limited removal of timber described in WAC 458-40-610 (28) | -\$100.00 |

TABLE 10—Harvest Adjustment Table
Stumpage Value Areas 6 and 7
 ((July 1 through December 31, 2023))
January 1 through June 30, 2024

| Type of Adjustment | Definition | Dollar Adjustment Per Thousand Board Feet Net Scribner Scale |
|--------------------------------|---|--|
| I. Volume per acre | | |
| Class 1 | Harvest of more than 8 thousand board feet per acre. | \$0.00 |
| Class 2 | Harvest of 8 thousand board feet per acre and less. | -\$8.00 |
| II. Logging conditions | | |
| Class 1 | The majority of the harvest unit has less than 40% slope. No significant rock outcrops or swamp barriers. | \$0.00 |
| Class 2 | The majority of the harvest unit has slopes between 40% and 60%. Some rock outcrops or swamp barriers. | -\$50.00 |
| Class 3 | The majority of the harvest unit has rough, broken ground with slopes over 60%. Numerous rock outcrops and bluffs. | -\$85.00 |
| Class 4 | Applies to logs yarded from stump to landing by helicopter. This does not apply to special forest products. | -\$200.00 |
| Note: | A Class 2 adjustment may be used for slopes less than 40% when cable logging is required by a duly promulgated forest practice regulation. Written documentation of this requirement must be provided by the taxpayer to the department of revenue. | |
| III. Remote island adjustment: | | |
| | For timber harvested from a remote island | -\$50.00 |
| IV. Thinning | | |
| | A limited removal of timber described in WAC 458-40-610 (28) | -\$60.00 |

TABLE 11—Domestic Market Adjustment

| Class | Area Adjustment Applies | Dollar Adjustment Per Thousand Board Feet Net Scribner Scale |
|-------|--|--|
| | SVAs 1 through 5 only: | \$0.00 |
| Note: | This adjustment only applies to published MBF sawlog values. | |

(4) **Damaged timber.** Timber harvesters planning to remove timber from areas having damaged timber may apply to the department of revenue for an adjustment in stumpage values. The application must contain a map with the legal descriptions of the area, an accurate estimate of the volume of damaged timber to be removed, a description of the damage sustained by the timber with an evaluation of the extent to which the stumpage values have been materially reduced from the values shown in the applicable tables, and a list of estimated additional costs to

be incurred resulting from the removal of the damaged timber. The application must be received and approved by the department of revenue before the harvest commences. Upon receipt of an application, the department of revenue will determine the amount of adjustment to be applied against the stumpage values. Timber that has been damaged due to sudden and unforeseen causes may qualify.

(a) Sudden and unforeseen causes of damage that qualify for consideration of an adjustment include:

(i) Causes listed in RCW 84.33.091; fire, blow down, ice storm, flood.

(ii) Others not listed; volcanic activity, earthquake.

(b) Causes that do not qualify for adjustment include:

(i) Animal damage, root rot, mistletoe, prior logging, insect damage, normal decay from fungi, and pathogen caused diseases; and

(ii) Any damage that can be accounted for in the accepted normal scaling rules through volume or grade reductions.

(c) The department of revenue will not grant adjustments for applications involving timber that has already been harvested but will consider any remaining undisturbed damaged timber scheduled for removal if it is properly identified.

(d) The department of revenue will notify the harvester in writing of approval or denial. Instructions will be included for taking any adjustment amounts approved.

(5) **Forest-derived biomass**, has a \$0/ton stumpage value.

[Statutory Authority: RCW 82.01.060(2), 84.33.096, and 84.33.091. WSR 23-14-011, § 458-40-660, filed 6/22/23, effective 7/1/23. Statutory Authority: RCW 82.01.060(2), 84.33.096, 84.33.091, and 84.33.140. WSR 23-02-049, § 458-40-660, filed 1/2/23, effective 1/2/23. Statutory Authority: RCW 82.01.060(2) and 84.33.096. WSR 22-14-029, § 458-40-660, filed 6/24/22, effective 7/1/22. Statutory Authority: RCW 82.01.060(2), 84.33.096, 84.33.091, and 84.33.140. WSR 22-01-185, § 458-40-660, filed 12/20/21, effective 1/1/22. Statutory Authority: RCW 82.01.060(2) and 84.33.096. WSR 21-13-100, § 458-40-660, filed 6/18/21, effective 7/1/21. Statutory Authority: RCW 82.01.060(2), 84.33.096, 84.33.091, and 84.33.140. WSR 21-02-020, § 458-40-660, filed 12/28/20, effective 1/1/21. Statutory Authority: RCW 82.01.060(2) and 84.33.096. WSR 20-14-067, § 458-40-660, filed 6/26/20, effective 7/1/20; WSR 20-02-053, § 458-40-660, filed 12/23/19, effective 1/1/20; WSR 19-14-013, § 458-40-660, filed 6/21/19, effective 7/1/19; WSR 19-02-069, § 458-40-660, filed 12/28/18, effective 1/1/19. Statutory Authority: RCW 82.01.060(2), 82.32.300, and 84.33.096. WSR 18-14-023, § 458-40-660, filed 6/26/18, effective 7/1/18; WSR 18-02-058, § 458-40-660, filed 12/29/17, effective 1/1/18; WSR 17-14-020, § 458-40-660, filed 6/23/17, effective 7/1/17; WSR 17-02-003, § 458-40-660, filed 12/22/16, effective 1/1/17. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, 84.33.091, and 84.33.140. WSR 16-14-035, § 458-40-660, filed 6/28/16, effective 7/1/16. Statutory Authority: RCW 82.01.060(2), 82.32.300, and 84.33.096. WSR 16-01-069, § 458-40-660, filed 12/14/15, effective 1/1/16. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, 84.33.091, and 84.33.140. WSR 15-14-019, § 458-40-660, filed 6/22/15, effective 7/1/15; WSR 15-01-095, § 458-40-660, filed 12/17/14, effective 1/1/15. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096 and 84.33.091. WSR 14-14-079, § 458-40-660, filed 6/27/14, effective 7/1/14; WSR 14-01-097, § 458-40-660, filed 12/17/13, effective 1/1/14; WSR 13-14-056, § 458-40-660, filed 6/28/13, effective

7/1/13; WSR 13-02-034, § 458-40-660, filed 12/21/12, effective 1/1/13; WSR 12-14-065, § 458-40-660, filed 6/29/12, effective 7/1/12. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, 84.33.091 and 84.33.140. WSR 12-02-040, § 458-40-660, filed 12/29/11, effective 1/1/12. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096 and 84.33.091. WSR 11-14-051, § 458-40-660, filed 6/29/11, effective 7/1/11; WSR 11-02-014, § 458-40-660, filed 12/29/10, effective 1/1/11; WSR 10-14-095, § 458-40-660, filed 7/6/10, effective 7/6/10; WSR 10-02-032, § 458-40-660, filed 12/29/09, effective 1/1/10; WSR 09-14-109, § 458-40-660, filed 6/30/09, effective 7/1/09; WSR 09-02-043, § 458-40-660, filed 12/31/08, effective 1/1/09; WSR 08-14-085, § 458-40-660, filed 6/27/08, effective 7/1/08; WSR 08-02-064, § 458-40-660, filed 12/28/07, effective 1/1/08; WSR 07-14-095, § 458-40-660, filed 6/29/07, effective 7/1/07; WSR 07-02-039, § 458-40-660, filed 12/26/06, effective 1/1/07; WSR 06-14-064, § 458-40-660, filed 6/30/06, effective 7/1/06; WSR 06-02-005, § 458-40-660, filed 12/22/05, effective 1/1/06; WSR 05-14-087, § 458-40-660, filed 6/30/05, effective 7/1/05; WSR 05-02-040, § 458-40-660, filed 12/30/04, effective 1/1/05; WSR 04-14-033, § 458-40-660, filed 6/29/04, effective 7/1/04; WSR 04-01-125, § 458-40-660, filed 12/18/03, effective 1/1/04; WSR 03-14-072, § 458-40-660, filed 6/26/03, effective 7/1/03. Statutory Authority: RCW 82.01.060(2), 82.32.300, 84.33.096, 84.33.091, and 84.33.140. WSR 03-02-004, § 458-40-660, filed 12/19/02, effective 1/1/03. Statutory Authority: RCW 82.32.300, 84.33.096, and 84.33.091. WSR 02-14-019, § 458-40-660, filed 6/21/02, effective 7/1/02. Statutory Authority: RCW 82.32.300, 84.33.096, 84.33.091 and 84.33.120. WSR 02-02-033, § 458-40-660, filed 12/24/01, effective 1/1/02. Statutory Authority: RCW 82.32.300, 84.33.096, and 84.33.091. WSR 01-13-105, § 458-40-660, filed 6/20/01, effective 7/1/01; WSR 01-02-020, § 458-40-660, filed 12/21/00, effective 1/1/01. Statutory Authority: RCW 82.32.300, 84.33.096, 84.33.091, 82.32.060, and 84.33.077. WSR 00-19-067, § 458-40-660, filed 9/19/00, effective 1/1/01. Statutory Authority: RCW 82.32.300, 84.33.096 and 84.33.091. WSR 00-14-011, § 458-40-660, filed 6/27/00, effective 7/1/00; WSR 00-02-019, § 458-40-660, filed 12/27/99, effective 1/1/00; WSR 99-14-055, § 458-40-660, filed 6/30/99, effective 7/1/99; WSR 99-02-032, § 458-40-660, filed 12/30/98, effective 1/1/99; WSR 98-14-083, § 458-40-660, filed 6/30/98, effective 7/1/98; WSR 98-02-015, § 458-40-660, filed 12/30/97, effective 1/1/98; WSR 97-14-068, § 458-40-660, filed 6/30/97, effective 7/1/97. Statutory Authority: RCW 82.32.330, 84.33.096 and 84.33.091. WSR 97-02-069, § 458-40-660, filed 12/31/96, effective 1/1/97; WSR 96-14-063, § 458-40-660, filed 6/28/96, effective 7/1/96; WSR 96-02-057, § 458-40-660, filed 12/29/95, effective 1/1/96. Statutory Authority: RCW 82.32.330, 84.33.096 and 84.33.200. WSR 95-18-027, § 458-40-660, filed 8/25/95, effective 9/25/95. Statutory Authority: RCW 82.32.300 and 84.33.096. WSR 95-02-038, § 458-40-660, filed 12/30/94, effective 1/1/95. Statutory Authority: RCW 84.33.091, 84.32.300 [82.32.300] and 84.33.096. WSR 94-14-048, § 458-40-660, filed 6/30/94, effective 7/1/94; WSR 94-02-047, § 458-40-660, filed 12/30/93, effective 1/1/94; WSR 93-14-051, § 458-40-660, filed 6/30/93, effective 7/1/93; WSR 93-02-025, § 458-40-660, filed 12/31/92, effective 1/1/93; WSR 92-14-083, § 458-40-660, filed 6/29/92, effective 7/1/92; WSR 92-02-067, § 458-40-660, filed 12/31/91, effective 1/1/92. Statutory Authority: RCW 84.33.096 and 82.32.300. WSR 91-14-077, § 458-40-660, filed 6/28/91, effective 7/1/91; WSR 91-09-030, § 458-40-660, filed

4/12/91, effective 5/13/91; WSR 91-02-088, § 458-40-660, filed 12/31/90, effective 1/31/91; WSR 90-14-033, § 458-40-660, filed 6/29/90, effective 7/30/90; WSR 90-02-049, § 458-40-660, filed 12/29/89, effective 1/29/90. Statutory Authority: Chapter 84.33 RCW and RCW 84.33.091. WSR 89-14-051 (Order FT-89-2), § 458-40-660, filed 6/30/89; WSR 89-02-027 (Order FT-88-5), § 458-40-660, filed 12/30/88; WSR 88-14-032 (Order FT-88-2), § 458-40-660, filed 6/30/88; WSR 88-02-026 (Order FT-87-5), § 458-40-660, filed 12/31/87. Statutory Authority: Chapter 84.33 RCW. WSR 87-14-042 (Order 87-2), § 458-40-660, filed 6/30/87; WSR 87-02-023 (Order 86-4), § 458-40-660, filed 12/31/86.]