

Chapter 51-54A WAC

STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE 2015 EDITION OF THE INTERNATIONAL FIRE CODE

WAC

51-54A-001	Authority.
51-54A-002	Purpose.
51-54A-003	International Fire Code.
51-54A-007	Exceptions.
51-54A-008	Implementation.
51-54A-0101	Section 101—Scope and general requirements.
51-54A-0105	Permits.
51-54A-0202	General definitions.
51-54A-0307	Open burning, recreational fires and portable outdoor fireplaces.
51-54A-0308	Open flames.
51-54A-0401	General.
51-54A-0402	Definitions.
51-54A-0403	Emergency preparedness requirements.
51-54A-0404	Fire safety and evacuation plans.
51-54A-0405	Emergency evacuation drills.
51-54A-0406	Employee training and response procedures.
51-54A-0408	Reserved.
51-54A-0503	Fire apparatus access roads.
51-54A-0507	Fire protection water supplies.
51-54A-0508	Fire command center.
51-54A-0605	Electrical equipment, wiring and hazards.
51-54A-0609	Commercial kitchen hoods.
51-54A-0806	Decorative vegetation in new and existing buildings.
51-54A-0901	General.
51-54A-0903	Automatic sprinkler systems.
51-54A-0904	Alternative automatic fire-extinguishing systems.
51-54A-0907	Fire alarm and detection systems.
51-54A-0908	Reserved.
51-54A-0909	Smoke control systems.
51-54A-0915	Carbon monoxide detection.
51-54A-0916	Alerting systems.
51-54A-1007	Reserved.
51-54A-1008	Reserved.
51-54A-1009	Accessible means of egress.
51-54A-1010	Doors, gates and turnstiles.
51-54A-1011	Stairways.
51-54A-1012	Ramps.
51-54A-1018	Reserved.
51-54A-1020	Corridors.
51-54A-1021	Reserved.
51-54A-1028	Exit discharge.
51-54A-1030	Emergency escape and rescue.
51-54A-1103	Fire safety requirements for existing buildings.
51-54A-1104	Means of egress for existing buildings.
51-54A-1105	Construction requirements for existing Group I-2.
51-54A-3103	Temporary tents and membrane structures.
51-54A-3601	Marinas—Scope.
51-54A-3602	Definitions.
51-54A-3604	Fire protection equipment.
51-54A-5306	Medical gas systems.
51-54A-5601	General.
51-54A-5704	Storage.
51-54A-5706	Special operations.
51-54A-6108	Fire protection.
51-54A-8000	Referenced standards.
51-54A-8100	Appendix K—Wildland-Urban-Interface Code.
51-54A-8200	Appendix N—Wildland Urban Interface Code.

WAC 51-54A-001 Authority. These rules are adopted under the authority of chapter 19.27 RCW.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-001, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-002 Purpose. The purpose of these rules is to implement the provisions of chapter 19.27 RCW, which provides that the State Building Code Council shall maintain

the State Building Code in a status which is consistent with the purpose as set forth in RCW 19.27.020. In maintaining the codes the council shall regularly review updated versions of the codes adopted under the act, and other pertinent information, and shall amend the codes as deemed appropriate by the council.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-002, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-003 International Fire Code. The 2015 edition of the International Fire Code, published by the International Code Council is hereby adopted by reference with the following additions, deletions, and exceptions.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-05-065, § 51-54A-003, filed 2/12/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-003, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-007 Exceptions. The exceptions and amendments to the International Fire Code contained in the provisions of chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

Codes referenced which are not adopted through RCW 19.27.031 or chapter 19.27A RCW shall not apply unless specifically adopted by the authority having jurisdiction. The 2015 International Wildland Urban Interface Code is included in this code as Section 8100 with amendments found in Appendix Chapter N.

The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under chapter 70.114A RCW or chapter 37, Laws of 1998 (2SSB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.

The manufacture, storage, handling, sale and use of fireworks shall be governed by chapter 70.77 RCW and by chapter 212-17 WAC and local ordinances consistent with chapter 212-17 WAC.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-05-065, § 51-54A-007, filed 2/12/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-007, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-008 Implementation. The *International Fire Code* adopted by chapter 51-54A WAC shall become effective in all counties and cities of this state on July 1, 2016.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-008, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-008, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0101 Section 101—Scope and general requirements.

101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted. The State Building Code Council has determined that a local ordinance adopting Appendix N Wildland Urban Interface Code may be adopted by any local government upon notification of the council.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-05-065, § 51-54A-0101, filed 2/12/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0101, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0105 Permits.

SECTION 105 SCOPE AND GENERAL REQUIREMENTS

105.1.1 Permits required. Any property owner or authorized agent who intends to conduct an operation or business, or install or modify systems and equipment, which is regulated by this code, or to cause any such work to be done shall first make application to the fire *code official* and obtain the required permit.

105.6.4 Carbon dioxide systems. An operational permit is required for carbon dioxide systems having more than 100 pounds of carbon dioxide.

105.6.4.9 Marijuana extraction systems. An operational permit is required to use a marijuana/cannabis extraction system regulated under WAC 314-55-104.

105.7.19 Marijuana extraction systems. A construction permit is required to install a marijuana/cannabis extraction system regulated under WAC 244-55-104 [WAC 314-55-104].

105.7.20 Underground supply piping for automatic sprinkler system. A construction permit is required for the installation of the portion of the underground water supply piping, public or private, supplying a water-based fire protection system. The permit shall apply to all underground piping and appurtenances downstream of the first control valve on the lateral piping or service line from the distribution main to one foot above finished floor of the facility with the fire protection system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

EXCEPTIONS: 1. When the underground piping is installed by the aboveground piping contractor.
2. Underground piping serves a fire protection system installed in accordance with NFPA 13D.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0105, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0105, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0202 General definitions.

SECTION 202 GENERAL DEFINITIONS

ADULT FAMILY HOME. A dwelling, licensed by Washington state, in which a person or persons provide personal care, special care, room and board to more than one but not more than six adults who are not related by blood or marriage to the person or persons providing the services.

ALERT SIGNAL. A distinctive signal indicating the need for trained personnel and occupants to initiate a specific action, such as shelter-in-place.

ALERT SYSTEM. Approved devices, equipment and systems or combinations of systems used to transmit or broadcast an alert signal.

ASSISTED LIVING FACILITY. A home or other institution, licensed by the state of Washington, providing housing, basic services and assuming general responsibility for the safety and well-being of residents under chapters 18.20 RCW and 388-78A WAC. These facilities may provide care to residents with symptoms consistent with dementia requiring additional security measures.

CHILD CARE. For the purposes of these regulations, child care is the care of children during any period of a 24-hour day.

CHILD CARE, FAMILY HOME. A child care facility, licensed by Washington state, located in the dwelling of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home.

CLUSTER. Clusters are multiple *portable school classrooms* separated by less than the requirements of the building code for separate buildings.

COVERED BOAT MOORAGE. A pier or system of floating or fixed access ways to which vessels on water may be secured and any portion of which are covered by a roof.

ELECTRICAL CODE. The National Electrical Code, promulgated by the National Fire Protection Association, as adopted by rule or local ordinance under the authority of chapter 19.28 RCW.

EXISTING. Buildings, facilities or conditions that are already in existence, constructed or officially authorized prior to the adoption of this code.

GRAVITY-OPERATED DROP OUT VENTS. Automatic smoke and heat vents containing heat-sensitive glazing designed to shrink and drop out of the vent openings when exposed to fire.

HOSPICE CARE CENTER. A building or portion thereof used on a 24-hour basis for the provision of hospice services to terminally ill inpatients.

MOTOR VEHICLE. Includes, but not limited to, a vehicle, machine, tractor, trailer or semitrailer, or any combination

thereof, propelled or drawn by mechanical power and designed for use upon the highways in the transportation of passengers or property. It does not include a vehicle, locomotive or car operated exclusively on a rail or rails, or a trolley bus operated by electric power derived from a fixed overhead wire, furnishing local passenger transportation similar to street-railway service. The term "motor vehicle" also includes freight containers or cargo tanks used, or intended for use, in connection with motor vehicles.

NIGHTCLUB. An A-2 Occupancy use under the 2006 International Building Code in which the aggregate area of concentrated use of unfixed chairs and standing space that is specifically designated and primarily used for dancing or viewing performers exceeds three hundred fifty square feet, excluding adjacent lobby areas. "Nightclub" does not include theaters with fixed seating, banquet halls, or lodge halls.

OCCUPANCY CLASSIFICATION. For the purposes of this code, certain occupancies are defined as follows:

Group I-2. This occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation. This group shall include, but not be limited to, the following:

- Foster care facilities
- Detoxification facilities
- Hospice care centers
- Hospitals
- Nursing homes
- Psychiatric hospitals

Five or fewer persons receiving care. A facility such as the above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*.

Licensed care facility. A facility such as the above providing licensed care to clients in one of the categories listed in Section 310.1 of the *International Building Code* licensed by Washington state shall be classified as Group R-2.

Family home child care. Family home child care licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3 or shall comply with the *International Residential Code*.

Adult care facility. A facility that provides accommodations for less than 24 hours for more than five unrelated adults and provides supervision and personal care services shall be classified as Group I-4.

EXCEPTION: Where the occupants are capable of responding to an emergency situation without physical assistance from the staff, the facility shall be classified as Group R-3.

Child care facility. Child care facilities that provide supervision and personal care on a less than 24-hour basis for more than five children 2 1/2 years of age or less shall be classified as Group I-4.

EXCEPTIONS:

1. A child day care facility that provides care for more than five but no more than 100 children 2 1/2 years or less of age, where the rooms in which the children are cared for are located on a level of exit discharge serving such rooms and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.
2. Family child care homes licensed by Washington state for the care of 12 or fewer children shall be classified as Group R-3.

Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code*. This group shall include:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

- Boarding houses (transient) with more than 10 occupants
- Congregate living facilities (transient) with more than 10 occupants
- Hotels (transient)
- Motels (transient)

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

- Apartment houses
- Boarding houses (nontransient) with more than 16 occupants
- Congregate living facilities (nontransient) with more than 16 occupants
- Convents
- Dormitories
- Fraternities and sororities
- Hotels (nontransient)
- Live/work units
- Monasteries
- Motels (nontransient)
- Residential treatment facilities as licensed by Washington state under chapter 246-337 WAC
- Vacation timeshare properties

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, or I, including:

- Buildings that do not contain more than two dwelling units.
- Boarding houses (nontransient) with 16 or fewer occupants.
- Boarding houses (transient) with 10 or fewer occupants.
- Care facilities that provide accommodations for five or fewer persons receiving care.
- Congregate living facilities (nontransient) with 16 or fewer occupants.
- Congregate living facilities (transient) with 10 or fewer occupants.

Care facilities within a dwelling. Care facilities for five or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the *International Residential Code* provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*.

Adult family homes, family home child care. Adult family homes and family home child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.

Foster family care homes. Foster family care homes licensed by Washington state are permitted to comply with the *International Residential Code*, as an accessory use to a dwelling, for six or fewer children including those of the resident family.

R-4 Classification is not adopted. Any reference in this code to R-4 does not apply.

PORTABLE SCHOOL CLASSROOM. A prefabricated structure consisting of one or more rooms with direct exterior egress from the classroom(s). The structure is transportable in one or more sections, and is designed to be used as an educational space with or without a permanent foundation. The structure shall be capable of being demounted and relocated to other locations as needs arise.

RECALL SIGNAL. An electrically or mechanically operated signal used to recall occupants after an emergency drill or to terminate a shelter-in-place event that shall be distinct from any alarm or alert signal used to initiate an emergency plan, or other signals.

SHELTER-IN-PLACE. An emergency response used to minimize exposure of facility occupants to chemical or environmental hazards by taking refuge in predetermined interior rooms or areas where actions are taken to isolate the interior environment from the exterior hazard.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0202, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-090, § 51-54A-0202, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0202, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0307 Open burning, recreational fires and portable outdoor fireplaces.

307.2.1 Authorization. Where required by state or local law or regulations, open burning shall only be permitted with prior approval from the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed. See also chapter 173-425 WAC.

307.4.2 Recreational fires. Recreational fires shall not be conducted within 25 feet of a structure or combustible material. Conditions which could cause a fire to spread within 25 feet of a structure shall be eliminated prior to ignition. See also chapter 173-425 WAC.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0307, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0308 Open flames.

308.1.4 Open-flame cooking devices. This section is not adopted.

308.1.7 Religious ceremonies. Participants in religious ceremonies shall not be precluded from carrying hand-held candles. See RCW 19.27.031(3).

[Ch. 51-54A WAC p. 4]

308.1.9 Aisles and exits. Candles shall be prohibited in areas where occupants stand, or in an aisle or exit.

EXCEPTION: Candles used in religious ceremonies.

308.1.10 Decorative open flame tables. Gas-fired portable or fixed open flame fire tables and fireplaces are required to be provided with fire *code official* approved design or protection devices to prevent occupants from using flame, and from flame being exposed to combustible material. A fire extinguisher shall be located within 75 feet of travel distance or a distance as approved by the fire *code official*. Where located indoors, the supply gas valve will be interlocked with building fire alarm and/or fire sprinklers, where provided.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0308, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0308, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0401 General.

401.2 Approval. Where required by the fire code official, fire safety plans, emergency procedures and employee training programs shall be approved.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0401, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0402 Definitions. The following terms are defined in Chapter 2:

ALARM SIGNAL

ALERT SIGNAL

ALERT SYSTEM

SHELTER-IN-PLACE

RECALL SIGNAL

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0402, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0402, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0403 Emergency preparedness requirements.

403.3.1 Fire evacuation plan. The fire safety and evacuation plan required by Section 404 shall include a description of special staff actions. This shall include a description for stabilizing patients in a staged evacuation or full evacuation in conjunction with the entire building, if part of a multitenant facility.

403.5.4 Assembly points and fire operations. Assembly points shall not be in areas likely to be utilized for fire service operations.

403.10.2 Group R-2 occupancies. Group R-2 occupancies shall comply with Sections 403.10.2.1 through 403.10.2.4.

403.10.2.4 Group R-2 assisted living and residential care facilities. Assisted living and residential care facilities licensed by the state of Washington shall comply with Section 403.8.1 as required for Group I-1 Condition 2 occupancies.

403.10.3 Group R-4 occupancies. This section not adopted.

403.12.3 Crowd managers for gatherings exceeding 1,000 people. Where facilities or events involve a gathering of more than 1,000 people, or as required by the fire *code official*, crowd managers shall be provided in accordance with Sections 403.12.3.1 through 403.12.3.3.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0403, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-0404 Fire safety and evacuation plans.

404.2.3 Lockdown plans. This section is not adopted.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0404, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0404, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0405 Emergency evacuation drills.

405.1 General. Emergency drills complying with the provisions of this section shall be conducted at least annually in the occupancies listed in Section 405.2.1 or when required by the fire code official. Drills shall be designed in cooperation with the local authorities.

405.2 Frequency. Required emergency drills shall be held at the intervals specified in Table 405.2 or more frequently where necessary to familiarize all occupants with the drill procedure.

405.2.1 Group E occupancies. The occupancy shall conduct at a minimum the following drills during the year:

1. One drill using the school mapping information system.

EXCEPTION: Day cares not collocated on a school campus.

2. Three fire evacuation drills.
3. One shelter-in-place drill.
4. Additional drills shall be as required by RCW 28A.320.125.

Table 405.2

Fire and Evacuation Drill Frequency and Participation

Group or Occupancy	Frequency	Participation
Group A	Quarterly	Employees
Group B ^b	Annually	All Occupants
Group B ^{b,c} (Ambulatory Care Facilities)	Annually	Employees
Group B ^b (Clinic, outpatient)	Annually	Employees
Group E	Monthly ^{a,c}	All Occupants
Group F	Annually	Employees
Group I-1	Semiannually on each shift	All Occupants
Group I-2	Quarterly on each shift ^a	Employees

(2/12/16)

Group or Occupancy	Frequency	Participation
Group I-3	Quarterly on each shift ^a	Employees
Group I-4	Quarterly on each shift ^a	All Occupants
Group R-1	Quarterly on each shift	Employees
Group R-2 ^f	Quarterly on each shift	Employees
Group R-2 ^d	Four Annually	All Occupants
High-rise buildings	Annually	Employees

- ^a In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency.
- ^b Emergency evacuation drills are required in Group B buildings having an occupant load of 500 or more persons or more than 100 persons above or below the level of exit discharge.
- ^c Emergency evacuation drills are required in ambulatory care facilities in accordance with Section 403.3.
- ^d Emergency evacuation drills in Group R-2 college and university buildings shall be in accordance with Section 403.10.2.1. Other Group R-2 occupancies shall be in accordance with Section 403.10.2.2.
- ^e Day cares collocated on a Group E campus shall participate in emergency drills occurring on the campus.
- ^f Applicable to group homes licensed by the state of Washington. Emergency evacuation drills for assisted living facilities and residential treatment facilities licensed by the state of Washington are required to meet the requirements of Group I-1.

405.4 Time. Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of an emergency.

405.5 Recordkeeping. Records shall be maintained of required emergency evacuation drills and include the following information:

1. Identity of the person conducting the drill.
2. Date and time of the drill.
3. Notification method used.
4. Staff members on duty and participating.
5. Number of occupants participating.
6. Special conditions simulated.
7. Problems encountered and corrective actions taken.
8. Weather conditions when occupants were evacuated.
9. Time required to accomplish complete evacuation, or shelter-in-place.

405.6 Notification. Where required by the fire *code official*, prior notification of emergency evacuation drills shall be given to the fire *code official*.

405.7 Initiation. Emergency drills shall be initiated in accordance with Sections 405.7.1 through 405.7.3.

405.7.1 Fire evacuation drills. Where a fire alarm system is provided, emergency evacuation drills shall be initiated by activating the fire alarm system. The fire alarm monitoring company shall be notified prior to the activation of the fire alarm system for drills proposed and again at the conclusion of the transmission and restoration of the fire alarm system to normal mode.

EXCEPTION: Drills conducted between the hours of 9:00 p.m. and 6:00 a.m., in assisted living facilities, group homes, and residential treatment facilities licensed by the state of Washington.

405.7.2 Shelter-in-place drills. Shelter-in-place drills shall be initiated by the shelter-in-place alert signal, generated by an alerting system in accordance with Section 907.5.2.

405.8 Accountability. As building occupants arrive at the assembly point, efforts shall be made to determine if all occupants have been successfully evacuated and/or have been accounted for in the shelter-in-place.

405.9 Recall and reentry. The recall signal initiation shall be manually operated and under the control of the person in charge of the premises or the official in charge of the incident. No one shall reenter the premises until authorized to do so by the official in charge.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0405, filed 1/16/16, effective 7/1/16; WSR 13-20-118, § 51-54A-0405, filed 10/1/13, effective 11/1/13. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0405, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0406 Employee training and response procedures.

406.1 General. Employees in the occupancies listed in Section 403 shall be trained in the emergency procedures described in their emergency plans. Training shall be based on these plans and as described in Section 404.2 and 404.3.

406.2 Frequency. Employees shall receive training in the contents of the emergency plans and their duties as part of new employee orientation and at least annually thereafter. Records shall be kept and made available to the fire code official upon request.

406.3 Employee training program. Employees shall be trained in fire prevention, evacuation, sheltering-in-place, and fire safety in accordance with Sections 406.3.1 through 406.3.3.

406.3.1 Fire prevention training. Employees shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be instructed in the proper procedures for preventing fires in the conduct of their assigned duties.

406.3.2 Evacuation training. Employees shall be familiarized with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas and procedures for evacuation.

406.3.3 Fire safety training. Employees assigned firefighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual firefighting equipment and the protective clothing or equipment required for its safe and proper use.

406.3.4 Emergency shelter-in-place training. Where a facility has a shelter-in-place plan, employees shall be trained on the alert and recall signals, communication system, location of emergency supplies, the use of the incident notification

and alarm system, and their assigned duties and procedures in the event of an alarm or emergency.

406.4 Emergency lockdown training. This section is not adopted.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0406, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0406, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0408 Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0408, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0408, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0503 Fire apparatus access roads.

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with locally adopted street, road, and access standards.

503.1.1 Buildings and facilities, is not adopted.

503.1.2 Additional access, is not adopted.

503.1.3 High-piled storage, is not adopted.

503.2 Specifications. This section is not adopted.

503.3 Marking. This section is not adopted.

503.4 Obstruction of fire apparatus access roads. This section is not adopted.

503.4.1 Traffic calming devices. This section is not adopted.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0503, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0507 Fire protection water supplies.

507.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.

EXCEPTIONS:

1. Fire flow is not required for structures under 500 square feet with a B, U or R-1 occupancy where structures are at least 30 feet from any other structure and are used only for recreation.
2. In rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire *code official* is authorized to utilize NFPA 1142 or the *International Wildland-Urban Interface Code*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0507, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0507, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0508 Fire command center.

508.1.2 Separation. The fire command center shall be separated from the remainder of the building by not less than a 2-hour fire barrier constructed in accordance with Section 707 of the International Building Code or horizontal assembly constructed in accordance with Section 712 of the International Building Code, or both.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0508, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0605 Electrical equipment, wiring and hazards.

605.11 Solar photovoltaic power systems. Installation, modification, or alteration of solar photovoltaic power systems shall comply with this section. Due to the emerging technologies in the solar photovoltaic industry, it is understood fire code officials may need to amend prescriptive requirements of this section to meet the requirements for firefighter access and product installations. Section 104.9 Alternative materials and methods of this code shall be considered when approving the installation of solar photovoltaic power systems. Solar photovoltaic power systems shall be installed in accordance with Sections 605.11.1 through 605.11.2, the *International Building Code* and chapter 19.28 RCW.

605.11.1 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 605.11.1.1 through 605.11.1.3.3.

EXCEPTIONS: 1. Detached, nonhabitable Group U structures including, but not limited to, parking shade structures, carports, solar trellises and similar structures.
2. Roof access, pathways and spacing requirements need not be provided where the fire chief has determined that rooftop operations will not be employed.

605.11.1.1 Roof access points. Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors, and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires or signs.

605.11.1.2 Solar photovoltaic systems for Group R-3 buildings. Solar photovoltaic systems for Group R-3 buildings shall comply with Sections 605.11.1.2.1 through 605.11.1.2.5.

EXCEPTION: These requirements shall not apply to structures designed and constructed in accordance with the *International Residential Code*. 1.1.1 Roof access points.

605.11.1.2.1 Size of solar photovoltaic array.

1. Each photovoltaic array shall be limited to 150 feet (45,720 mm) by 150 feet (45,720 mm). Multiple arrays shall be separated by a 3-foot wide (914 mm) clear access pathway.

2. Panels/modules shall be located up to the roof ridge where an alternative ventilation method approved by the fire code official has determined vertical ventilation techniques will not be employed.

605.11.1.2.2 Hip roof layouts. Panels and modules installed on Group R-3 buildings with hip roof layouts shall be located in a manner that provides a 3-foot wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels and modules are located. The access pathway shall be at a location on the building capable of supporting the firefighters accessing the roof.

EXCEPTION: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.1.2.3 Single-ridge roofs. Panels and modules installed on Group R-3 buildings with a single ridge shall be located in a manner that provides two, 3-foot wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels and modules are located.

EXCEPTION: This requirement shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.1.2.4 Roofs with hips and valleys. Panels and modules installed on Group R-3 buildings with roof hips and valleys shall not be located closer than 18 inches (457 mm) to a hip or a valley where panels/modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

EXCEPTION: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.1.2.5 Allowance for smoke ventilation operations. Panels and modules installed on Group R-3 buildings shall be located not less than 18 inches (457 mm) from the ridge in order to allow for fire department smoke ventilation operations.

EXCEPTION: Panels and modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.

605.11.1.3 Other than Group R-3 buildings. Access to systems for buildings, other than those containing Group R-3 occupancies, shall be provided in accordance with Sections 605.11.1.3.1 through 605.11.1.3.3.

EXCEPTION: Where it is determined by the fire code official that the roof configuration is similar to that of a Group R-3 occupancy, the residential access and ventilation requirements in Sections 605.11.1.2.1 through 605.11.1.2.5 shall be permitted to be used.

605.11.1.3.1 Access. There shall be a minimum 6-foot wide (1829 mm) clear perimeter around the edges of the roof.

EXCEPTION: Where either axis of the building is 250 feet (76,200 mm) or less, the clear perimeter around the edges of the roof shall be permitted to be reduced to a minimum 4 foot wide (1290 mm).

605.11.1.3.2 Pathways. The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:

1. The pathway shall be over areas capable of supporting firefighters accessing the roof.

2. The centerline axis pathways shall be provided in both axes of the roof. Centerline axis pathways shall run where the roof structure is capable of supporting firefighters accessing the roof.

3. Pathways shall be a straight line not less than 4 feet (1290 mm) clear to roof standpipes or ventilation hatches.

4. Pathways shall provide not less than 4 feet (1290 mm) clear around roof access hatch with not less than one singular pathway not less than 4 feet (1290 mm) clear to a parapet or roof edge.

605.11.1.3.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. Arrays shall be not greater than 150 feet (45,720 mm) by 150 feet (45,720 mm) in distance in either axis in order to create opportunities for fire department smoke ventilation operations.

2. Smoke ventilation options between array sections shall be one of the following:

2.1. A pathway 8 feet (2438 mm) or greater in width.

2.2. A 4-foot (1290 mm) or greater in width pathway and bordering roof skylights or gravity-operated dropout smoke and heat vents on not less than one side.

2.3. A 4-foot (1290 mm) or greater in width pathway and bordering all sides of nongravity-operated dropout smoke and heat vents.

2.4. A 4-foot (1290 mm) or greater in width pathway and bordering 4-foot by 8-foot (1290 mm by 2438 mm) "venting cutouts" every 20 feet (6096 mm) on alternating sides of the pathway.

605.11.2 Ground-mounted photovoltaic arrays. Ground-mounted photovoltaic arrays shall comply with Section 605.11 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0605, filed 1/16/16, effective 7/1/16. Statutory Authority: Chapters 19.27A and 34.05 RCW. WSR 13-24-076, § 51-54A-0605, filed 12/2/13, effective 4/1/14. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0605, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0609 Commercial kitchen hoods.

[M] 609.2 Where required. A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease laden vapors.

- EXCEPTIONS:
1. A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m³ or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m³/s) in accordance with Section 17 of UL 710B.
 2. A Type I hood shall not be required to be installed in an R-2 occupancy with not more than 16 residents.

609.2.1 Domestic cooking appliances used for commercial purposes. Domestic cooking appliances utilized for commercial purposes shall be provided with Type I, Type II or residential hoods as required for the type of appliances and processes in accordance with Table 609.2.1 and Sections 507.2, 507.2.1 and 507.2.2 of the *International Mechanical Code*.

Table 609.2.1

Type of Hood Required for Domestic Cooking Appliances in the Following Spaces^{a,b}

Type of Space	Type of Cooking	Type of Hood
Church	1. Boiling, steaming and warming precooked food	Type II hood

[Ch. 51-54A WAC p. 8]

Type of Space	Type of Cooking	Type of Hood
	2. Roasting, pan frying and deep frying	Type I hood
Community or party room in apartment and condominium	1. Boiling, steaming and warming precooked food 2. Roasting, pan frying and deep frying	Residential hood ^c or Type II hood ^d Type I hood
Day care	1. Boiling, steaming and warming precooked food 2. Roasting, pan frying and deep frying	Residential hood ^c or Type II hood ^d Type I hood
Dormitory, assisted living facility, nursing home	1. Boiling, steaming and warming precooked food 2. Roasting, pan frying and deep frying	Type II hood Type I hood
Office lunch room	1. Boiling, steaming and warming precooked food 2. Roasting, pan frying and deep frying	Residential hood ^c or Type II hood ^d Type I hood

^a Commercial cooking appliances shall comply with Section 507.2 of the *International Mechanical Code*.

^b Requirements in this table apply to electric or gas fuel appliances only. Solid fuel appliances or charbroilers require Type I hoods.

^c Residential hood shall ventilate to the outside.

^d Type II hood required when more than one appliance is used.

609.3 Operations, inspection and maintenance. Commercial cooking systems shall be operated, inspected and maintained in accordance with Sections 609.3.1 through 609.3.4 and Chapter 11 of NFPA 96.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0609, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0609, 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.

WAC 51-54A-0806 Decorative vegetation in new and existing buildings.

806.1.1 Restricted occupancies. Natural cut trees shall be prohibited in the following occupancies:

1. Group I; and
2. R-2 occupancies providing licensed care to clients in one of the categories listed in the *International Building Code*, Section 310.1, licensed by Washington state.

806.1.2 Support devices. The support device that holds the tree in an upright position shall be of a type that is stable and that meets all of the following criteria:

1. The device shall hold the tree securely and be of adequate size to avoid tipping over of the tree.
2. The device shall be capable of containing a minimum supply of water in accordance with Table 806.1.2.
3. The water level, when full, shall cover the tree stem at least 2 inches (51 mm). The water level shall be maintained above the fresh cut and checked at least once daily.

**Table 806.1.2
Support Stand Water Capacity**

Tree Stem Diameter (inches)	Minimum Support Stand Water Capacity (gallons)	Typical Daily Water Transpiration Amount (gallons)
Up to 4	1	1/4 to 1
4 to 6	1 1/2	1 1/4 to 1 1/2
7 to 8	2	1 3/4 to 2
9 to 12	3	2 1/4 to 3
13 and over	4	Over 3

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0806, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0901 General.

901.4.2 Nonrequired fire protection systems. A fire protection system or portion thereof not required by this code or the *International Building Code* shall be allowed to be furnished for partial or complete protection provided such installed system meets the applicable requirements of this code and the *International Building Code*. Such systems or portion of system shall be provided with signage stating "NON-REQUIRED SYSTEM." Signage shall be durable and permanent in nature, with contrasting color and background, and with lettering of not less than 1 inch in height. Location of such signage shall be approved.

901.8.2 Removal of existing occupant-use hose lines. The fire code official is authorized to permit the removal of existing occupant-use hose lines where all of the following conditions exist:

1. Installation is not required by this code, the *International Building Code*, or a previously approved alternative method.
2. The hose line would not be utilized by trained personnel or the fire department.
3. The remaining outlets are compatible with local fire department fittings.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0901, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-0903 Automatic sprinkler systems.

903.2.1.6 Assembly occupancies on roofs. Where an occupied roof has an assembly occupancy with an occupant load exceeding 100 for Group A-2, and 300 for other Group A

(2/12/16)

occupancies, the building shall be equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.

EXCEPTION: Open parking garages of Type I or Type II construction.

903.2.1.8 Nightclub. An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code.

903.2.3 Group E. An automatic sprinkler system shall be provided for fire areas containing Group E occupancies where the fire area has an occupant load of 51 or more, calculated in accordance with Table 1004.1.2.

- EXCEPTIONS:
1. Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table 1004.1.2, provided that the aggregate area of any cluster of portable classrooms does not exceed 6,000 square feet (557 m²); and clusters of portable school classrooms shall be separated as required by the building code; or
 2. Portable school classrooms with an occupant load from 51 through 98, calculated in accordance with Table 1004.1.2, and provided with two means of direct independent exterior egress from each classroom in accordance with Chapter 10, and one exit from each classroom shall be accessible, provided that the aggregate area of any cluster of portable classrooms does not exceed 6,000 square feet (557 m²); and clusters of portable school classrooms shall be separated as required by the building code; or
 3. Fire areas containing day care and preschool facilities with a total occupant load of 100 or less located at the level of exit discharge where every room in which care is provided has not fewer than one exit discharge door.

903.2.6 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

- EXCEPTIONS:
1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities.
 2. Where new construction or additions house less than sixteen persons receiving care, an automatic sprinkler system installed in accordance with Section 903.2.8.3 shall be permitted for Group I-1, Condition 2, assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities licensed under chapter 246-337 WAC.

903.2.6.1 Group I-4. An automatic sprinkler system shall be provided in fire areas containing Group I-4 occupancies where the fire area has an occupant load of 51 or more, calculated in accordance with Table 1004.1.2.

- EXCEPTIONS:
1. An automatic sprinkler system is not required where Group I-4 day care facilities with a total occupant load of 100 or less, and located at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.
 2. In buildings where Group I-4 day care is provide on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge and all floors below the level of exit discharge other than areas classified as an open parking garage.

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

- EXCEPTION: Group R-1 if all of the following conditions apply:
1. The Group R fire area is no more than 500 square feet and is used for recreational use only.
 2. The Group R fire area is on only one story.
 3. The Group R fire area does not include a basement.
 4. The Group R fire area is no closer than 30 feet from another structure.
 5. Cooking is not allowed within the Group R fire area.
 6. The Group R fire area has an occupant load of no more than 8.
 7. A hand-held (portable) fire extinguisher is in every Group R fire area.

903.2.11.1.3 Basements. Where any portion of a basement is located more than 75 feet (22,860 mm) from openings required by Section 903.2.11.1, or where new walls, partitions or other similar obstructions are installed that increase the exit access travel distance to more than 75 feet, the basement shall be equipped throughout with an approved automatic sprinkler system.

903.2.11.7 Relocatable buildings within buildings. Relocatable buildings or structures located within a building with an approved fire sprinkler system shall be provided with fire sprinkler protection within the occupiable space of the building and the space underneath the relocatable building.

- EXCEPTIONS:
1. Sprinkler protection is not required underneath the building when the space is separated from the adjacent space by construction resisting the passage of smoke and heat and combustible storage will not be located there.
 2. If the building or structure does not have a roof or ceiling obstructing the overhead sprinklers.
 3. Construction trailers and temporary offices used during new building construction prior to occupancy.
 4. Movable shopping mall kiosks with a roof or canopy dimension of less than 4 feet on the smallest side.

903.3.5.3 Underground portions of fire protection system water supply piping. The installation or modification of an underground water main, public or private, supplying a water-based fire protection system shall be in accordance with NFPA 24 and chapter 18.160 RCW. Piping and appurtenances downstream of the first control valve on the lateral or service line from the distribution main to one-foot above finished floor shall be approved by the fire *code official*. Such underground piping shall be installed by a fire sprinkler system contractor licensed in accordance with chapter 18.160 RCW and holding either a Level U or a Level 3 license. For underground piping supplying systems installed in accordance with Section 903.3.1.2, a Level 2, 3, or U licensed contractor is acceptable.

- EXCEPTION: Portions of underground piping supplying automatic sprinkler systems installed in accordance with NFPA 13D.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0903, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-090, § 51-54A-0903, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0903, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0904 Alternative automatic fire-extinguishing systems.

904.12 Commercial cooking systems. The automatic fire-extinguishing system for commercial cooking systems shall

be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. Preengineered automatic dry and wet chemical extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for the intended application. Other types of automatic fire-extinguishing systems shall be listed and labeled for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. Signage shall be provided on the exhaust hood or system cabinet, indicating the type and arrangement of cooking appliances protected by the automatic fire-extinguishing system. Signage shall indicate appliances from left to right, be durable, and the size, color, and lettering shall be approved. Automatic fire-extinguishing systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:

1. Carbon dioxide extinguishing systems, NFPA 12;
2. *Automatic sprinkler systems*, NFPA 13;
3. Foam-water sprinkler systems or foam-water spray systems, NFPA 16;
4. Dry-chemical extinguishing systems, NFPA 17;
5. Wet-chemical extinguishing systems, NFPA 17A.

- EXCEPTION: Factory-built commercial cooking recirculating systems that are tested in accordance with UL 710B and *listed, labeled* and installed in accordance with Section 304.1 of the *International Mechanical Code*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0904, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-0907 Fire alarm and detection systems.

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

- EXCEPTIONS:
1. A manual fire alarm system is not required in Group E occupancies with an occupant load of 50 or less.
 2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
 3. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
 - 3.1 Interior corridors are protected by smoke detectors.
 - 3.2 Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
 - 3.3 Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
 4. Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the emergency voice/alarm communication system will activate on sprinkler water flow and manual activation.

907.2.6 Group I. A manual fire alarm system that activates the occupant notification system shall be installed in Group I occupancies. An automatic smoke detection system that notifies the occupant notification system shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2, 907.2.6.3.3 and 907.2.6.4.

EXCEPTIONS:

1. Manual fire alarm boxes in resident or patient sleeping areas of Group I-1 and I-2 occupancies shall not be required at exits if located at nurses' control stations or other constantly attended staff locations, provided such stations are visible and continually accessible and that travel distances required in Section 907.4.2 are not exceeded.
2. Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is approved by the fire code official.

907.2.6.1 Group I-1. An automatic smoke detection system shall be installed in *corridors*, waiting areas open to *corridors* and *habitable spaces* other than *sleeping units* and *kitchens*. The system shall be activated in accordance with Section 907.4.

EXCEPTIONS:

1. For Group I-1 Condition 1 occupancies, smoke detection in *habitable spaces* is not required where the facility is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. Smoke detection is not required for exterior balconies.

907.2.6.4 Group I-4 occupancies. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group I-4 occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

EXCEPTIONS:

1. A manual fire alarm system is not required in Group I-4 occupancies with an occupant load of 50 or less.
2. Emergency voice alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group I-4 occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.

907.5.2.1.2 Maximum sound pressure. The maximum sound pressure level for audible alarm notification appliances shall be 110 dBA at the minimum hearing distance from the audible appliance. For systems operating in public mode, the maximum sound pressure level shall not exceed 30 dBA over the average ambient sound level. Where the average ambient noise is greater than 95 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall be required.

907.10 NICET: National Institute for Certification in Engineering Technologies.

907.10.1 Scope. This section shall apply to new and existing fire alarm systems.

907.10.2 Design review: All construction documents shall be reviewed by a NICET III in fire alarms or a licensed professional engineer (PE) in Washington prior to being submitted for permitting. The reviewing professional shall submit a

stamped, signed, and dated letter; or a verification method approved by the local authority having jurisdiction indicating the system has been reviewed and meets or exceeds the design requirements of the state of Washington and the local jurisdiction (effective July 1, 2017).

907.10.3 Testing/maintenance: All inspection, testing, maintenance and programming not defined as "*electrical construction trade*" by chapter 19.28 RCW shall be completed by a NICET II in fire alarms (effective July 1, 2017).

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0907, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-091, § 51-54A-0907, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0907, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0908 Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0908, filed 1/16/16, effective 7/1/16. Statutory Authority: Chapters 19.27, 19.27A, and 34.05 RCW. WSR 13-24-017, § 51-54A-0908, filed 11/21/13, effective 4/1/14. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0908, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0909 Smoke control systems.

909.21.12 Hoistway venting. Hoistway venting required by Section 3009 of the state building code need not be provided for pressurized elevator shafts.

909.21.13 Machine rooms. Elevator machine rooms shall be pressurized in accordance with this section unless separated from the hoistway shaft by construction in accordance with Section 707 of the International Building Code.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0909, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0909, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0915 Carbon monoxide detection.

915.1 General. Carbon monoxide detection shall be installed in new buildings in accordance with Sections 915.1.1 through 915.6. Carbon monoxide detection shall be installed in existing buildings in accordance with Chapter 11 of the *International Fire Code*.

915.1.1 Where required. Carbon monoxide detection shall be provided in Group I and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 915.2 where any of the conditions in Sections 915.1.2 through 915.1.6 exist.

EXCEPTIONS:

1. R-2 occupancies, with the exception of R-2 college dormitories, are required to install carbon monoxide detectors without exception.
2. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, DOC prisons and work releases and assisted living facilities and residential treatment facilities licensed by the state of Washington, which do not themselves contain a fuel-burning appliance, a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that they comply with the exceptions of Section 915.1.4.

915.1.2 Fuel-burning appliances and fuel-burning fireplaces. Carbon monoxide detection shall be provided in

dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

915.1.3 Forced-air furnaces. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms served by a fuel-burning, forced-air furnace.

EXCEPTION: Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where carbon monoxide detection is provided in the first room or area served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.

915.1.4 Fuel-burning appliances outside of dwelling units, sleeping units and classrooms. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms located in buildings that contain fuel-burning appliances or fuel-burning fireplaces.

EXCEPTIONS:

1. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where there are no communicating openings between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom.
2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where carbon monoxide detection is provided in one of the following locations:
 - 2.1 In an approved location between the fuel burning appliance or fuel burning fireplace, and the dwelling unit, sleeping unit or classroom.
 - 2.2 On the ceiling of the room containing the fuel burning appliance or fuel burning fireplace.

915.1.5 Private garages. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms in buildings with attached private garages.

EXCEPTIONS:

1. Carbon monoxide detection shall not be required where there are no communicating openings between the private garage and the dwelling unit, sleeping unit or classroom.
2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms located more than one story above or below a private garage.
3. Carbon monoxide detection shall not be required where the private garage connects to the building through an open-ended corridor.
4. Where carbon monoxide detection is provided in an approved location between openings to a private garage and dwelling units, sleeping units or classrooms, carbon monoxide detection shall not be required in the dwelling units, sleeping units or classrooms.

915.1.6 Exempt garages. For determining compliance with Section 915.1.5, an open parking garage complying with Section 406.5 of the *International Building Code* or an enclosed parking garage complying with Section 406.6 of the *International Building Code* shall not be considered a private garage.

915.2 Locations. Where required by Section 915.1.1, carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.3.

915.2.1 Dwelling units. Carbon monoxide detection shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each level of the dwelling. Where a fuel-burning appliance or a fuel-burning fireplace is located within a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.

915.2.2 Sleeping units. Carbon monoxide detection shall be installed in *sleeping units*.

EXCEPTION: Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom does not contain a fuel-burning appliance or fuel-burning fireplace and is not served by a forced air furnace.

915.2.3 Group E occupancies. When required by Section 915.1 in new buildings, or by Chapter 11 of the *International Fire Code*, carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.

EXCEPTIONS:

1. Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 50 or less.
2. Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies where an exception contained in Section 915.1 applies, or in Group E occupancies where signals are transmitted to an off-site service monitored by a third party, such as a service that monitors fire protection systems in the building.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0915, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0915, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0916 Alerting systems.

916.1 General. An approved alerting system shall be provided in buildings and structures as required in Chapter 4 and this section, unless other requirements are provided by another section of this code.

EXCEPTION: Approved alerting systems in existing buildings, structures or occupancies.

916.2 Power source. Alerting systems shall be provided with power supplies in accordance with Section 4.4.1 of NFPA 72 and circuit disconnecting means identified as "EMERGENCY ALERTING SYSTEM."

EXCEPTION: Systems which do not require electrical power to operate.

916.3 Duration of operation. The alerting system shall be capable of operating under nonalarm condition (quiescent load) for a minimum of 24 hours and then shall be capable of operating during an emergency condition for a period of 15 minutes at maximum connected load.

916.4 Combination system. Alerting system components and equipment shall be allowed to be used for other purposes.

916.4.1 System priority. The alerting system use shall take precedence over any other use.

916.4.2 Fire alarm system. Fire alarm systems sharing components and equipment with alerting systems must be in accordance with Section 6.8.4 of NFPA 72.

916.4.2.1 Signal priority. Recorded or live alert signals generated by an alerting system that shares components with a fire alarm system shall, when actuated, take priority over fire alarm messages and signals.

916.4.2.2 Temporary deactivation. Should the fire alarm system be in the alarm mode when such an alerting system is actuated, it shall temporarily cause deactivation of all fire alarm-initiated audible messages or signals during the time period required to transmit the alert signal.

916.4.2.3 Supervisory signal. Deactivation of fire alarm audible and visual notification signals shall cause a supervisory signal for each notification zone affected in the fire alarm system.

916.5 Audibility. Audible characteristics of the alert signal shall be in accordance with Section 7.4.1 of NFPA 72 throughout the area served by the alerting system.

EXCEPTION: Areas served by approved visual or textual notification, where the visible notification appliances are not also used as a fire alarm signal, are not required to be provided with audibility complying with Section 916.6.

916.6 Visibility. Visible and textual notification appliances shall be permitted in addition to alert signal audibility.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-0916, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-1007 Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1007, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1007, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1008 Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1008, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1008, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1009 Accessible means of egress.

1009.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by Section 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

EXCEPTIONS:

1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1009.3, 1009.4 or 1009.5.
3. In assembly areas with ramped aisles or stepped aisles one accessible means of egress is permitted where the common path of egress travel is accessible and meets the requirements in Section 1029.8.
4. In parking garages, accessible means of egress are not required to serve parking areas that do not contain accessible parking spaces.

1009.8 Two-way communication. A two-way communication system complying with Sections 1009.8.1 and 1009.8.2 shall be provided at the landing serving each elevator or bank of elevators on each accessible floor that is one or more stories above or below the level of exit discharge.

(2/12/16)

EXCEPTIONS:

1. Two-way communication systems are not required at the landing serving each elevator or bank of elevators where the two-way communication system is provided within areas of refuge in accordance with Section 1009.6.5.
2. Two-way communication systems are not required on floors provided with ramps that provide a direct path of egress travel to grade or the level of exit discharge conforming to the provisions of Section 1012.
3. Two-way communication systems are not required at the landings serving only service elevators that are not designated as part of the accessible means of egress or serve as part of the required accessible route into a facility.
4. Two-way communication systems are not required at the landings serving only freight elevators.
5. Two-way communication systems are not required at the landing serving a private residence elevator.

1009.8.1 System requirements. Two-way communication systems shall provide communication between each required location and the fire command center or a central control point location approved by the fire department. Where the central control point is not a constantly attended location, a two-way communication system shall have a timed automatic telephone dial-out capability to a monitoring location. The two-way communication system shall include both audible and visible signals. The two-way communication system shall have a battery backup or an approved alternate source of power that is capable of 90 minutes use upon failure of the normal power source.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1009, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1009, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1010 Doors, gates and turnstiles.

1010.1.9.3 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M, and S, and in places of religious worship, the main door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
 - 2.1. The locking device is readily distinguishable as locked;
 - 2.2. A readily visible sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and
 - 2.3. The use of the key-operated locking device is revocable by the building official for due cause.
3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no door-knob or surface-mounted hardware.

4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt, or security chain, provided such devices are operable from the inside without the use of a key or a tool.

[Ch. 51-54A WAC p. 13]

5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

6. Approved, listed locks without delayed egress shall be permitted in Group I-1 condition 2 assisted living facilities licensed by the state of Washington, provided that:

6.1. The clinical needs of one or more patients require specialized security measures for their safety.

6.2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.

6.3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.

6.4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.

6.5. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.

1010.1.9.6 Controlled egress doors in Groups I-1 and I-2.

Electric locking systems, including electro-mechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-1 or I-2 occupancies where the clinical needs of persons receiving care require their containment. Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with all of the following:

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.

2. The doors unlock upon loss of power controlling the lock or lock mechanism.

3. The door locking system shall be installed to have the capability of being unlocked by a switch located at the fire command center, a nursing station or other approved location. The switch shall directly break power to the lock.

4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.

5. The procedures for unlocking the doors shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the *International Fire Code*.

6. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door. All clinical staff shall have the keys, codes or other means necessary to operate the locking systems.

7. Emergency lighting shall be provided at the door.

8. The door locking system units shall be listed in accordance with UL 294.

EXCEPTIONS: 1. Items 1 through 4 and 6 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area provided that all clinical staff shall have the keys, codes or other means necessary to operate the locking devices.

2. Items 1 through 4 and 6 shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child abduction from nursery and obstetric areas of a Group I-2 hospital.

1010.1.10 Panic and fire exit hardware. Doors serving a Group H occupancy and doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.

EXCEPTIONS: 1. A main exit of a Group A occupancy shall be permitted to be locking in accordance with Section 1010.1.9.3, Item 2.
2. Doors serving a Group A or E occupancy shall be permitted to be electromagnetically locked in accordance with Section 1010.1.9.9.

1010.1.10.3 Electrical rooms and working clearances. Exit and exit access doors serving electrical rooms and working spaces shall swing in the direction of egress travel and shall be equipped with panic hardware or fire exit hardware where such rooms or working spaces contain one or more of the following:

1. Equipment operating at more than 600 volts, nominal.

2. Equipment operating at 600 volts or less, nominal and rated at 800 amperes or more, and where the equipment contains overcurrent devices, switching devices or control devices.

EXCEPTION: Panic and fire exit hardware is not required on exit and exit access doors serving electrical equipment rooms and working spaces where such doors are not less than twenty-five feet (7.6 m) from the nearest edge of the electrical equipment.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1010, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1010, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1011 Stairways.

1011.17 Stairways in individual dwelling units. Stairs or ladders within an individual dwelling unit used for access to areas of 200 square feet (18.6 m²) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1009.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1011, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-1012 Ramps.

1012.1 Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

EXCEPTIONS: 1. Other than ramps that are part of the accessible routes providing access in accordance with Sections 1108.2 through 1108.2.4 and 1108.2.6, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1029.13.
2. Curb ramps shall comply with ICC A117.1.
3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.4 through 1010.10 when they are not an accessible route serving accessible parking spaces or other required accessible elements.

4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area may include a vehicle ramp that does not comply with Sections 1010.5, 1010.6, and 1010.9. A landing complying with Sections 1010.7.1 and 1010.7.4 shall be provided at any change of direction in the accessible means of egress.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1012, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-1018 Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1018, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1018, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1020 Corridors.

1020.5 Air movement in corridors. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

- EXCEPTIONS:
1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.
 2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
 3. Where located within tenant spaces of one thousand square feet (93 m²) or less in area, utilization of corridors for conveying return air is permitted.
 4. Incidental air movement from pressurized rooms within health care facilities, provided that a corridor is not the primary source of supply or return to the room.
 5. Where such air is part of an engineered smoke control system.
 6. Air supplied to corridors serving residential occupancies shall not be considered as providing ventilation air to the dwelling units subject to the following:
 - 6.1. The air supplied to the corridor is one hundred percent outside air; and
 - 6.2. The units served by the corridor have conforming ventilation air independent of the air supplied to the corridor; and
 - 6.3. For other than high-rise buildings, the supply fan will automatically shut off upon activation of corridor smoke detectors which shall be spaced at no more than thirty feet (9144 mm) on center along the corridor; or
 - 6.4. For high-rise buildings, corridor smoke detector activation will close required smoke/fire dampers at the supply inlet to the corridor at the floor receiving the alarm.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1020, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-1021 Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1021, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1021, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1028 Exit discharge.

1028.4.1 Width or capacity. The required capacity of egress courts shall be determined as specified in Section 1005.1, but the minimum width shall be not less than 44 inches (1118

(2/12/16)

mm), except as specified herein. Egress courts serving Group R-3 and U occupancies shall be not less than 36 inches (914 mm) in width. The required capacity and width of egress courts shall be unobstructed to a height of 7 feet (2134 mm).

EXCEPTION: Encroachments complying with Section 1005.7.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1028, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-1030 Emergency escape and rescue.

1030.1 General. In addition to the means of egress required by this chapter, provisions shall be made to emergency escape and rescue openings in Group R-2 occupancies in accordance with Tables 1006.3.2(1) and 1006.3.2(2) and Group R-3 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency escape and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

- EXCEPTIONS:
1. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.
 2. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior balcony that opens to a public way.
 3. Basements without habitable spaces and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have emergency escape and rescue openings.
 4. Within individual dwelling and sleeping units in Groups R-2 and R-3, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:
 - a. One means of egress and one emergency escape and rescue opening.
 - b. Two means of egress.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1030, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-1103 Fire safety requirements for existing buildings.

1103.4.3 More than five stories. In other than Group I occupancies, interior vertical openings connecting more than five stories shall be protected by fire-resistant and smoke-rated construction.

- EXCEPTIONS:
1. Vertical opening protection is not required for Group R-3 occupancies.
 2. Vertical opening protection is not required for open parking garages and ramps.
 3. Vertical opening protection for escalators shall be in accordance with Section 1103.4.8.

[Ch. 51-54A WAC p. 15]

1103.5.5 Nightclub. An automatic sprinkler system shall be provided throughout A-2 nightclubs as defined in this code. No building shall be constructed for, used for, or converted to occupancy as a nightclub except in accordance with this section.

1103.9 Carbon monoxide alarms. Existing Group I or Group R occupancies shall be provided with single station carbon monoxide alarms in accordance with Section 915.4.3. An inspection will occur when alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2015 and the manufacturer's instructions.

EXCEPTIONS:

1. For other than R-2 occupancies, if the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage.
2. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, or electrical permits.
3. Installation, alteration or repairs of noncombustion plumbing or mechanical systems.
4. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, DOC prisons and work releases and assisted living facilities and residential treatment facilities licensed by the state of Washington which do not themselves contain a fuel-burning appliance, a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that:
 - 4.1. The sleeping units or dwelling unit is not adjacent to any room which contains a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
 - 4.2. The sleeping units or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or to an attached garage; and
 - 4.3. The building is provided with a common area carbon monoxide detection system.
5. An open parking garage, as defined in the International Building Code, or enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be considered an attached garage.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1103, filed 1/16/16, effective 7/1/16. Statutory Authority: Chapters 19.27, 19.27A, and 34.05 RCW. WSR 13-24-017, § 51-54A-1103, filed 11/21/13, effective 4/1/14. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1103, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1104 Means of egress for existing buildings.

1104.1 General. Means of egress in existing buildings shall comply with Section 1030 and 1104.2 through 1104.25.

EXCEPTION: Means of egress conforming to the requirements of the building code under which they were constructed and Section 1030 shall not be required to comply with 1104.2 through 1104.22 and 1104.25.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-05-065, § 51-54A-1104, filed 2/12/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1104, filed 2/1/13, effective 7/1/13.]

[Ch. 51-54A WAC p. 16]

WAC 51-54A-1105 Construction requirements for existing Group I-2.

1105.1 General. This section shall be applied by jurisdictions conducting surveys for compliance with the federal centers for medicare and medicaid reimbursement program. Existing Group I-2 shall meet all of the following requirements:

1. The minimum fire safety requirements in Section 1103.
2. The minimum means of egress requirements in Section 1104.
3. The additional egress and construction requirements in Section 1105.

Where the provisions of this chapter conflict with the construction requirements that applied at the time of construction, the most restrictive provisions shall apply.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-1105, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-3103 Temporary tents and membrane structures.

3103.5 Use period. Temporary tents, air-supported, air-inflated or tensioned membrane structures are permitted to be erected for a period of less than 180 days within a 12-month period on a single premises. Such structures erected for 180 days or more within a 12-month period shall comply with the IBC.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-3103, filed 1/16/16, effective 7/1/16.]

WAC 51-54A-3601 Marinas—Scope.

3601.1.2 Permits. For permits to operate marine motor fuel-dispensing stations, application of flammable or combustible finishes, and hot works, see Section 105.6.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-3601, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-3602 Definitions.

3602.1 Definitions. The following terms are defined in Chapter 2:

COVERED BOAT MOORAGE

FLOAT

GRAVITY-OPERATED DROP OUT VENTS

MARINA

PIER

VESSEL

WHARF

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-3602, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-3604 Fire protection equipment.

3604.2 Standpipes. Marinas shall be equipped throughout with Class I manual, dry standpipe systems in accordance with NFPA 303. Systems shall be provided with outlets

located such that no point on the marina pier or float system exceeds 150 feet from a standpipe outlet.

3604.3 Access and water supply. Piers and wharves shall be provided with fire apparatus access roads and water-supply systems with on-site fire hydrants when required and approved by the fire code official. At least one fire hydrant capable of providing the required fire flow shall be provided within an approved distance of standpipe supply connections.

3604.4 Portable fire extinguishers. One 4A40BC fire extinguisher shall be provided at each standpipe outlet. Additional fire extinguishers, suitable for the hazards involved, shall be provided and maintained in accordance with Section 906.

3604.7 Smoke and heat vents. Approved automatic smoke and heat vents shall be provided in covered boat moorage areas exceeding 2,500 sq. ft. (232 m²) in area, excluding roof overhangs.

EXCEPTION: Smoke and heat vents are not required in areas protected by automatic sprinklers.

3604.7.1 Design and installation. Where smoke and heat vents are required they shall be installed near the roof peak, evenly distributed and arranged so that at least one vent is over each covered berth. The effective vent area shall be calculated using a ratio of one square foot of vent to every fifteen square feet of covered berth area (1:15). Each vent shall provide a minimum opening size of 4 ft. x 4 ft.

3604.7.1.1 Smoke and heat vents. Smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at 100°F (56°C) above ambient.

EXCEPTION: Gravity-operated drop out vents.

3604.7.1.2 Gravity-operated drop out vents. Gravity-operated drop out vents shall fully open within 5 minutes after the vent cavity is exposed to a simulated fire represented by a time-temperature gradient that reaches an air temperature of 500°F (260°C) within 5 minutes.

3604.8 Draft curtains. Draft curtains shall be provided in covered boat moorage areas exceeding 2,500 sq. ft. (232 m²) in area, excluding roof overhangs.

EXCEPTION: Draft curtains are not required in areas protected by automatic sprinklers.

3604.8.1 Draft curtain construction. Draft curtains shall be constructed of sheet metal, gypsum board or other approved materials that provide equivalent performance to resist the passage of smoke. Joints and connections shall be smoke tight.

3604.8.2 Draft curtain location and depth. The maximum area protected by draft curtains shall not exceed 2,000 sq. ft. (186 m²) or two slips or berths, whichever is smaller. Draft curtains shall not extend past the piling line. Draft curtains shall have a minimum depth of 4 feet and shall not extend closer than 8 feet (2438 mm) to the walking surface of the pier.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-3604, filed 2/1/13, effective 7/1/13.]

(2/12/16)

WAC 51-54A-5306 Medical gas systems.

5306.1 General. Compressed gases at hospitals and similar facilities intended for inhalation or sedation including, but not limited to, analgesia systems for dentistry, podiatry, veterinary and similar uses shall comply with Sections 5306.2 through 5306.4 in addition to other requirements of this chapter.

EXCEPTION: All new distribution piping, supply manifolds, connections, regulators, valves, alarms, sensors and associated equipment shall be in accordance with the Plumbing Code.

5306.4 Medical gas systems. The maintenance and testing of medical gas systems including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves, shall comply with the maintenance and testing requirements of NFPA 99 and the general provisions of this chapter.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-5306, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-5601 General.

5601.1 Scope. The provisions of this chapter shall govern the possession, manufacture, storage, handling, sale and use of explosives, explosive materials, and small arms ammunition. The manufacture, storage, handling, sale and use of fireworks shall be governed by chapter 70.77 RCW, and by chapter 212-17 WAC and local ordinances consistent with chapter 212-17 WAC.

EXCEPTIONS:

1. The Armed Forces of the United States, Coast Guard or National Guard.
2. Explosives in forms prescribed by the official United States Pharmacopoeia.
3. The possession, storage and use of small arms ammunition when packaged in accordance with DOT packaging requirements.
4. The possession, storage and use of not more than 1 pound (0.454 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.
5. The use of explosive materials by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.
6. Special industrial explosive devices which in the aggregate contain less than 50 pounds (23 kg) of explosive materials.
7. The possession, storage and use of blank industrial-power load cartridges when packaged in accordance with DOT packaging regulations.
8. Transportation in accordance with DOT 49 C.F.R. Parts 100-178.
9. Items preempted by federal regulations.

5601.1.1 Explosive material standard. In addition to the requirements of this chapter, NFPA 495 shall govern the manufacture, transportation, storage, sale, handling and use of explosive materials. See also chapter 70.74 RCW and chapter 296-52 WAC.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-5601, filed 2/1/13, effective 7/1/13.]

[Ch. 51-54A WAC p. 17]

WAC 51-54A-5704 Storage.

5704.2.11 Underground tanks. Underground storage of flammable and combustible liquids in tanks shall comply with Section 3404.2 and Sections 3404.2.11.1 through 3404.2.11.5.2. Corrosion protection shall comply with WAC 173-360-305.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-5704, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-5706 Special operations.

5706.5.4.5 Commercial, industrial, governmental or manufacturing. Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with the following: (Those sections not noted here remain unchanged.)

12. Fuel delivery vehicles shall be equipped with spill clean-up supplies in accordance with the department of ecology's Source Control Best Management Practices. Such supplies shall be readily available for deployment by the operator at all times and include nonwater absorbents capable of absorbing 15 gallons (56.76 L) of diesel fuel, storm drain plug or cover kit, a nonwater absorbent containment boom of a minimum 10 foot long (3038 mm) length with a 12-gallon (45.41 L) absorbent capacity, a nonmetallic shovel, and two 5-gallon (19 L) buckets with lids.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-5706, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-6108 Fire protection.

6108.1 Scope. Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gas shall be determined in accordance with Appendix B of NFPA 58.

EXCEPTION: The use and storage of listed propane fired barbeque grills on R-2 decks and balconies with an approved container not exceeding a water capacity of 20 pounds (9 kg) that maintain a minimum clearance of 18 inches on all sides, unless listed for lesser clearances.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-6108, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-8000 Referenced standards.

NFPA 96-07 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations 609.3

NFPA 720-15 Standard for the Installation of Carbon Monoxide (CO) Warning Equipment in Dwelling Units 1103.9

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-8000, filed 1/16/16, effective 7/1/16. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-8000, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-8100 Appendix K—Wildland-Urban-Interface Code.

K101.5 Additions or alterations. Additions or alterations may be made to any building or structure without requiring the existing building or structure to comply with all of the requirements of this code, provided the addition or alteration conforms to that required for a new building or structure.

EXCEPTION: Provisions of this code that specifically apply to existing conditions are retroactive. See Sections 402.3, 601.1 and Appendix A.

Additions or alterations shall not cause the existing building or structure to become unsafe. An unsafe condition shall be deemed to have been created if an addition or alteration will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate access in compliance with the provisions of this code or will obstruct existing exits or access; will create a fire hazard; will reduce required fire resistance or will otherwise create conditions dangerous to human life.

K108.3 Site plan. In addition to the requirements for plans in the International Building Code, the code official may require site plans which include topography, width and percent of grade of access roads, landscape and vegetation details, locations of structures or building envelopes, existing or proposed overhead utilities, occupancy classification of buildings, types of ignition resistant construction of buildings, structures and their appendages, roof classification of buildings, and site water supply systems. The code official is authorized to waive or modify the requirement for a site plan.

K108.4 Vegetation management plans. When required by the code official or when utilized by the permit applicant pursuant to Section 502, vegetation management plans shall be prepared and shall be submitted to the code official for review and approval as part of the plans required for a permit. See Appendix B.

K108.7 Vicinity plan. When required by the code official, the requirements for site plans shall include details regarding the vicinity within 300 feet (91,440 mm) of property lines, including other structures, slope, vegetation, fuel breaks, water supply systems and access roads.

K402.1.1 Access. New subdivisions, as determined by this jurisdiction, shall be provided with fire apparatus access roads in accordance with the International Fire Code.

K402.1.2 Water supply. New subdivisions, as determined by this jurisdiction, shall be provided with water supply in accordance with the International Fire Code.

K402.2 Individual structures. Individual structures shall comply with Sections 402.2.1 and 402.2.2.

K402.2.1 Access. Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with fire apparatus access in accordance with the International Fire Code.

K402.2.2 Water supply. Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with a conforming water supply in accordance with the International Fire Code.

EXCEPTIONS: 1. Structures constructed to meet the requirements for the class of ignition-resistant construction specified in Table K503.1 for a nonconforming water supply.
 2. Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m²).

K402.3 Existing conditions. Existing address markers, roads and fire protection equipment shall be in accordance with the International Fire Code.

**Table K503.1
 Ignition-Resistant Construction^a**

	Fire Hazard Severity					
	Moderate Hazard		High Hazard		Extreme Hazard	
	Water Supply ^b		Water Supply ^b		Water Supply ^b	
Defensible Space^c	Conforming	Nonconforming	Conforming	Nonconforming	Conforming	Nonconforming
Nonconforming	IR 2	IR 1	IR 1	IR 1 N.C.	IR 1 N.C.	Not Permitted
Conforming	IR 3	IR 2	IR 2	IR 1	IR 1	IR 1 N.C.
1.5 x Conforming	Not Required	IR 3	IR 3	IR 2	IR 2	IR 1

^aAccess shall be in accordance with Section 402.

^bWater supply shall be in accordance with Section 402.1.

IR 1 = Ignition-resistant construction in accordance with Section 504.

IR 2 = Ignition-resistant construction in accordance with Section 505.

IR 3 = Ignition-resistant construction in accordance with Section 506.

N.C. = Exterior walls shall have a fire-resistance rating of not less than 1 hour and the exterior surfaces of such walls shall be noncombustible. Usage of log wall construction is allowed.

^cConformance based on Section 603.

K403 Access. This section not adopted.

K404 Water supply. This section not adopted.

APPENDIX B-VEGETATION MANAGEMENT PLAN - THIS APPENDIX IS ADOPTED.

APPENDIX C-FIRE DANGER RATING SYSTEM - THIS APPENDIX IS ADOPTED.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-8100, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-8200 Appendix N—Wildland Urban Interface Code. Reserved.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-055, § 51-54A-8200, filed 1/16/16, effective 7/1/16.]