

**WASHINGTON STATE
BUILDING CODE**

**CHAPTER 51-54
2006 Second Edition**

**Washington State Amendments to the
2006 INTERNATIONAL FIRE CODE**



Washington State Building Code Council

Effective April 1, 2008

Copies of the State Building Codes and complete copies of the International Fire Code as published by the International Code Council may be obtained from:

Washington Association of Building Officials
Post Office Box 7310
Olympia, Washington 98507-7310
(360) 586-6725 www.wabo.org
or toll free in Washington State at (888) 664-9515

Fifth Edition Titled
International Fire Code
Chapter 51-54 WAC
Effective April 1, 2007
Fourth Edition based on
WSR 07-01-093
Fifth Edition based on
WSR 08-01-101

Preface

Authority: The International Fire Code (Chapter 51-54 WAC) is adopted by the Washington State Building Code Council pursuant to Chapters 19.27 and 70.92 RCW. These codes were first adopted by reference by the Washington State Legislature in 1974. In 1985, the Legislature delegated the responsibility of adoption and amendment of these codes to the State Building Code Council.

Supersession of Previous Codes: Chapter 51-54 WAC supersedes Chapters 51-44 and 51-45 WAC.

Code Precedence: The State Building Code Act, Chapter 19.27 RCW, establishes the following order of precedence among the documents adopted as parts of the State Building Code:

- International Building Code, Standards and amendments - WAC 51-50;
- International Residential Code, Standards and amendments – WAC 51-51;
- International Mechanical Code, Standards and amendments - WAC 51-52;
- Uniform Fire Code, Standards and amendments - WAC 51-54;
- International Plumbing Code, Standards and amendments - WAC 51-56, 51-57.

Where there is a conflict between codes, an earlier named code takes precedence over a later named code. In the case of conflict between the duct insulation requirements of the International Mechanical Code and the duct insulation requirements of the Energy Code, the Energy Code, or where applicable, a local jurisdiction's energy code, shall govern.

Where, in any specific case, different sections of this Code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

Organization and Numbering: These rules are written to allow compatible use with the International Fire Code. All sections which are amended, deleted, or added are referenced.

Enforcement: The State Building Code Act requires that each local jurisdiction enforce the State Building Code within its jurisdiction. Any jurisdiction can contract with another jurisdiction or an inspection agency to provide the mandated enforcement activities.

Amendments to the State Building Code:

The State Building Code Council has adopted review procedures and approval criteria for local amendments. These procedures and criteria are found in Chapter 51-04 WAC. The Council has exempted from its review any amendments to the administrative provisions of the various codes.

Forms for proposing statewide amendments to the State Building Code are available from the State Building Code Council staff.

- A. **Amendments of Statewide Application:** On a yearly basis the State Building Code Council will consider proposals to amend the State Building Code. Unless directed by the State Legislature, federal mandates or court order, the Council will not enter formal rulemaking until 2009 as part of its consideration of adoption of the 2009 series of codes.

Proposals to amend the State Building Code shall be made on forms provided by the Building Code Council.

Code Change Proposal Submittal Deadline: March 1st of each year.

- B. **Local Amendments:** Any jurisdiction may amend the State Building Code provided the amendments do not reduce the minimum performance standards of the codes. There are areas where local amendments are limited or prohibited:

Prohibited Amendments: Residential provisions of the State Energy Code (WAC 51-11), the Ventilation and Indoor Air Quality Code (WAC 51-13); any provision of the International Building Code or International Residential Code affecting accessibility; and standards specifically adopted in Chapters 19.27 and 19.27A cannot be amended by any local jurisdiction.

Residential Amendments: Amendments by local jurisdictions which affect the construction of single family and multi-family residential buildings must be reviewed and approved by the State Building Code Council before such amendments can be enforced. The State Building Code Act provides the following definition:

Multi-family residential building: means common wall residential buildings that consist of four or fewer units, that do not exceed two stories in height, that are less than 5,000 square feet in area, and that have a one-hour fire-resistive occupancy separation between units.

Application forms for Council review of local amendments are available from the State Building Code Council Staff.

Washington State Building Code Council
Post Office Box 42525
Olympia, Washington 98504-2525
www.sbcc.wa.gov
(360) 725-2966 Fax (360) 586-9383
e-mail: sbcc@cted.wa.gov

Printing Format: This version of the rules is published as a series of insert or replacement pages. Each page provides instructions for installing them in the model code book. Amendments to the model code which are new or revised from the previous edition of this code are indicated by a line in the margin next to the revised portions.

Effective Date: These rules were adopted by the State Building Code Council on November 17, 2006 and amended on November 9, 2007. The rules are effective throughout the state on April 1, 2008. (This version of the code is based on WAC 51-54 as published in WSR 07-01-093. It is subject to review by the State Legislature during the 2008 session.)

Building Permit Fees: The activities of the State Building Code Council are supported by permit fees collected by each city and county. Section 19.27.085 of the State Building Code Act requires that a fee of \$4.50 be imposed on each building permit issued by each city and county. In addition, a fee of \$2.00 per unit shall be imposed for each dwelling unit after the first unit, on each building containing more than one residential unit. For the purpose of this fee, WAC 365-110-035 defines building permits as any permit to construct, enlarge, alter, repair, move, improve, remove, convert or demolish any building or structure regulated by the Building Code. Exempt from the fee are plumbing, electrical, mechanical permits, permits issued to install a mobile/manufactured home, commercial coach or factory built structure, or permits issued pursuant to the International Fire Code.

Each city and county shall remit moneys collected to the state treasury quarterly. No remittance is required until a minimum of \$50.00 has accumulated.

These permit fees are the amounts current in January 2007. Such fees may be changed by the State Legislature.

Opinions: Only at the request of local enforcement official, the State Building Code Council may issue interpretations/opinions of those provisions of the State Building Code created by the Council, or provisions of the model codes amended by the Council. Final interpretation authority for any specific permit resides with the local enforcement official.

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**CHAPTER 51-54 WAC
STATE BUILDING CODE ADOPTION AND AMENDMENT
OF THE 2006 EDITION OF THE INTERNATIONAL FIRE CODE**

WAC 51-54-001 AUTHORITY

These rules are adopted under the authority of Chapter 19.27 RCW.

WAC 51-54-002 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.

WAC 51-54-003 INTERNATIONAL FIRE CODE

The 2006 edition of the International Fire Code, published by the International Code Council is hereby adopted by reference with the following additions, deletions and exceptions.

WAC 51-54-007 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 RCW 19.27A shall not apply unless specifically adopted by the authority having jurisdiction.

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

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

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.

WAC 51-54-008 IMPLEMENTATION

The International Fire Code adopted by Chapter 51-54 WAC shall become effective in all counties and cities of this state on July 1, 2007, with additional amendments effective April 1, 2008.

11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of marine craft and special equipment at commercial, industrial, governmental or manufacturing establishments.

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

(Insert Facing Page 13)

CHILD DAY CARE, shall, for the purposes of these regulations, mean the care of children during any period of a 24-hour day.

(Insert Facing Page 14)

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

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

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.

Day Care. The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than five children older than 2-1/2 years of age, shall be classified as a Group E occupancy.

Exception: Family child day care homes licensed by the Washington State Department of Social and Health Services for the care of twelve or fewer children shall be classified as Group R-3.

(Insert Facing Page 18)

Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Convalescent facilities

(Insert Facing Page 20)

Group homes
Halfway houses
Residential board and care facilities
Social rehabilitation facilities

⇒ A facility such as the above with five or fewer persons and adult family homes licensed by the Washington State Department of Social and Health Services shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2.

A facility such as the above providing licensed care to clients in one of the categories listed in IBC Section 310.1 regulated by either the Washington Department of Health or the Department of Social and Health Services shall be classified as Group R-2.

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

Hospitals
Nursing homes (both intermediate-care facilities and skilled nursing facilities)
Mental hospitals
Detoxification facilities

A facility such as the above with five or fewer persons shall be classified as Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2.

A facility such as the above providing licensed care to clients in one of the categories listed in IBC Section 310.1 regulated by either the Washington Department of Health or the Department of Social and Health Services shall be classified as Group R-2.

A child care facility that provides care on a 24-hour basis to more than five children 2-1/2 years of age or less shall be classified as Group I-2.

(Group I-3 remains as printed)

Group I-4, Day care facilities. This group shall include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians, relatives by blood marriage, or adoption, and in a place other than the home of the person cared for. A facility such as the above with five or fewer persons shall be classified as Group R-3 or shall comply with the *International Residential Code*. Places of worship during religious functions are not included.

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

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

Child care facility. A facility that provides supervision and personal care on less than a 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, when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.
2. Family child day care homes licensed by the Washington State Department of Social and Health Services for the care of twelve or fewer children shall be classified as Group R-3.

RESIDENTIAL GROUP R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the International Residential Code in accordance with Section 101.2 of the International Building Code. Residential occupancies shall include the following:

R-1 (*Remains as printed*)

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 (not transient)
- Boarding homes as licensed by the Department of Social and Health Services under Chapter 388-78A WAC
- Convents
- Dormitories
- Fraternities and sororities
- Hotels (nontransient)
- Motels (nontransient)
- Monasteries
- Residential treatment facilities as licensed by the Department of Health under Chapter 246-337 WAC
- Vacation timeshare properties
- Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4 or I and where buildings do not contain more than two dwelling units as applicable in Section 101.2, including adult family homes and family child day care homes for the care of twelve or fewer children, licensed by the Washington State Department of Social and Health Services, or adult and child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours, or congregate living facilities with sixteen or fewer persons. Adult family homes and family child day care homes, or adult and child care facilities that are within a single-family home are permitted to comply with the International Residential Code in accordance with Section 101.2.

Foster Family Care Homes licensed by the Washington State Department of Social and Health Services shall be permitted, as an accessory use to a dwelling, for six or fewer children including those of the resident family.

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

(Insert Facing Page 22)

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 WAC 173-425.

(Insert Facing Page 28)

308.3.1.1 Liquefied-petroleum-gas-fueled cooking devices. This section is not adopted.

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 WAC 173-425.

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

(Insert Facing Page 29)

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

Exception: Candles used in religious ceremonies. See RCW 19.27.031(3).

308.3.5 Religious ceremonies. Participants in religious ceremonies shall not be precluded from carrying hand-held candles.



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CHAPTER 4

EMERGENCY PLANNING AND PREPAREDNESS

SECTION 401 GENERAL

401.1 Scope. Reporting of emergencies, coordination with emergency response forces, emergency plans, and procedures for managing or responding to emergencies shall comply with the provisions of this section.

Exception: Firms that have approved on-premises fire-fighting organizations and that are in compliance with approved procedures for fire reporting.

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

401.3 Emergency forces notification. In the event an unwanted fire occurs on a property, the owner or occupant shall immediately report such condition to the fire department. Building employees and tenants shall implement the appropriate emergency plans and procedures. No person shall, by verbal or written directive, require any delay in the reporting of a fire to the fire department.

401.3.1 Making false report. It shall be unlawful for a person to give, signal, or transmit a false alarm.

401.3.2 Alarm activations. Upon activation of a fire alarm signal, employees or staff shall immediately notify the fire department.

401.3.3 Emergency evacuation drills. Nothing in this section shall prohibit the sounding of a fire alarm signal or the carrying out of an emergency evacuation drill in accordance with the provisions of Section 405.

401.4 Interference with fire department operations. It shall be unlawful to interfere with, attempt to interfere with, conspire to interfere with, obstruct or restrict the mobility of or block the path of travel of a fire department emergency vehicle in any way, or to interfere with, attempt to interfere with, conspire to interfere with, obstruct or hamper any fire department operation.

401.5 Security device. Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premise shall be prohibited.

SECTION 402 DEFINITIONS

402.1 Definition. The following word and term shall, for the purposes of this chapter and as used elsewhere in this code, have the meaning shown herein.

EMERGENCY EVACUATION DRILL. An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency ~~evacuation~~ procedures.

LOCKDOWN. An action used to position occupants behind secured openings and isolated from threats.

Full lockdown. Occupants remain out of sight and as quiet as possible, with only limited authorized entry, exit, or movement within the building. Occupants in corridors, common areas, or unsecured areas move quickly to the nearest secured area.

Modified lockdown. Occupants of a facility are isolated from potential outside threats by remaining within a building with exterior doors and other exits secured, and that entry and exit from the building is limited to that which is authorized. During a modified lockdown, interior movement and other activities within the building may be allowed or restricted in accordance to the lockdown plan.

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.

SECTION 403 PUBLIC ASSEMBLAGES AND EVENTS

403.1 Fire watch personnel. When, in the opinion of the fire code official, it is essential for public safety in a place of assembly or any other place where people congregate, because of the number of persons, or the nature of the performance, exhibition, display, contest or activity, the owner, agent or lessee shall provide one or more fire watch personnel, as required and approved, to remain on duty during the times such places are open to the public, or when such activity is being conducted.

403.1.1 Duties. Fire watch personnel shall keep diligent watch for fires, obstructions to means of egress and other hazards during the time such place is open to the public or such activity is being conducted and take prompt measures for remediation of hazards, extinguishment of fires that occur and assist in the evacuation of the public from the structures.

403.2 Public safety plan. In other than Group A or E occupancies, where the fire code official determines that an indoor or outdoor gathering of persons has an adverse impact on public safety through diminished access to buildings, structures, fire hydrants and fire apparatus access roads or where such gatherings adversely affect public safety services of any kind, the fire code official shall have the authority to order the development of, or prescribe a plan for, the provision of an approved level of public safety.

403.2.1 Contents. The public safety plan, where required by Section 403.2, shall address such items as emergency vehicle ingress and egress, fire protection, emergency medical services, public assembly areas and the directing of both attendees and vehicles (including the parking of

(Insert Replacing Page 35)

vehicles), vendor and food concession distribution, and the need for the presence of law enforcement, and fire and emergency medical services personnel at the event.

SECTION 404 FIRE SAFETY AND EVACUATION PLANS

404.1 General. Fire safety, and evacuation, shelter-in-place, and lockdown plans shall comply with the requirements of this section.

404.2 Fire safety and evacuation plans. Fire safety and evacuation plans shall comply with the requirements of Sections 404.2.1 through 404.2.4.

404.2.1 Where required. An approved fire safety and evacuation plan shall be prepared and maintained for the following occupancies and buildings.

1. Group A, ~~other than Group A occupancies used exclusively for purposes of religious worship that~~ having an occupant load ~~less than 2,000~~ of 100 or more.
2. Group B buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
3. Group E.
4. Group H.
5. Group I.
6. Group R-1.
7. Group R-2 college and university buildings. Boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.
8. ~~Group R-4.~~
9. High-rise buildings.
10. Group M buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
11. Covered malls exceeding 50,000 square feet (4645 m²) in aggregate floor area.
12. Underground buildings.
13. Buildings with an atrium and having an occupancy in Group A, E or M.

404.2.2 Contents. Fire safety and evacuation plan contents shall be in accordance with Sections 404.2.2.1 and 404.2.2.2.

404.2.2.1 Fire evacuation plans. Fire evacuation plans shall include the following:

1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.
2. Procedures for employees who must remain to operate critical equipment before evacuating.

3. Procedures for accounting for employees and occupants after evacuation has been completed.
4. Identification and assignment of personnel responsible for rescue or emergency medical aid.
5. The preferred and any alternative means of notifying occupants of a fire or emergency.
6. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.
7. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.
8. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.

404.2.2.2 Fire safety plans. Fire safety plans shall include the following:

1. The procedure for reporting a fire or other emergency.
2. The life safety strategy and procedures for notifying, relocating, or evacuating occupants.
3. Site plans indicating the following:
 - The occupancy assembly point.
 - The locations of fire hydrants.
 - The normal routes of fire department vehicle access.
4. Floor plans identifying the locations of the following:
 - Exits.
 - Primary evacuation routes.
 - Secondary evacuation routes.
 - Accessible egress routes.
 - Areas of refuge.
 - Manual fire alarm boxes.
 - Portable fire extinguishers.
 - Occupant-use hose stations.
 - Fire alarm annunciators and controls.
5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.

404.2.3 Maintenance. Fire safety and evacuation plans shall be reviewed by the owner or occupant ~~or updated~~ annually or more often, as necessitated by changes in staff assignments, occupancy, or the physical arrangement of the building.

404.2.4 Availability. Fire safety and evacuation plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review upon request.

404.3 Shelter-in-place and lockdown plans. Shelter-in-place and lockdown plans shall comply with the requirements of Sections 404.3.1 through 404.3.4.

404.3.1 Where required. A shelter-in-place and lockdown plan shall be prepared and maintained for all Group E occupancies.

Exception: Daycares not colocated on a Group E campus.

404.3.2 Contents. Shelter-in-place and lockdown plan contents shall be in accordance with Sections 404.3.2.1 and 404.3.2.2.

404.3.2.1 Shelter-in-place plans. Shelter-in-place plans shall include the following:

1. Identification of the procedures of initiating the shelter-in-place plan throughout the facility or campus.
2. Identification of prearranged alert and recall signals to notify all occupants.
3. Identification of procedures for reporting the facility is sheltering-in-place to the local emergency dispatch center.
4. A means of two-way communication between a central location and each secure area.
5. Identification of protective security measures.
6. Location of emergency supplies.
7. Accountability procedures for staff to report the presence or absence of occupants.
8. Identification of crisis response team members in accordance with the National Incident Management System.
9. Actions to be taken in the event of a fire or medical emergency while sheltering-in-place.

404.3.2.2 Lockdown plans. Lockdown plans shall include the following:

1. Identification of the procedures of initiating the lockdown plan throughout the facility or campus.
2. Identification of prearranged alert and recall signals to notify all occupants.
3. Identification of procedures for access to the facility for emergency responders.
4. Identification of procedures for reporting the facility is in lockdown to the local emergency dispatch center.
5. A means of two-way communication between a central location and each secure area.
6. Identification of protective security measures.
7. Location of emergency supplies.
8. Accountability procedures for staff to report the presence or absence of occupants.
9. Identification of crisis response team members in accordance with the National Incident Management System.

10. Actions to be taken in the event of a fire or medical emergency while in lockdown.

404.3.3 Maintenance. Shelter-in-place and lockdown plans shall be reviewed by the owner or occupant annually or more often, as necessitated by changes in staff assignments, occupancy, or the physical arrangement of the building.

404.3.4 Availability. Shelter-in-place and lockdown plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review upon request.

**SECTION 405
EMERGENCY EVACUATION DRILLS**

405.1 General. Emergency drills shall comply with the requirements of this section.

405.2 Emergency evacuation drills. Emergency evacuation drills complying with the provisions of this section shall be conducted at least annually in the occupancies listed in Section 404.2.1 or when required by the fire code official. Drills shall be designed in cooperation with the local authorities.

405.2.1 Frequency. Required emergency evacuation drills shall be held at the intervals specified in Table 405.2.1 or more frequently where necessary to familiarize all occupants with the drill procedure.

**TABLE 405.2
FIRE AND EVACUATION DRILL FREQUENCY AND PARTICIPATION**

GROUP OR OCCUPANCY	FREQUENCY	PARTICIPATION
Group A	Quarterly	Employees
Group B ^c	Annually	Employees
Group E	Monthly ^{a,e}	All occupants
Group I	Quarterly on each shift	Employees ^b
Group R-1	Quarterly on each shift	Employees
<u>Group R-2^L</u>	<u>Quarterly on each shift</u>	<u>Employees</u>
Group R-2 ^d	Four annually	All occupants
Group R-4	Quarterly on each shift	Employees
High-rise buildings	Annually	Employees

- a. The frequency shall be allowed to be modified in accordance with Section 408.3.2.
- b. Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises in accordance with Section 408.10.5. Where occupants receive habilitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program.
- c. Group B buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
- d. Applicable to Group R-2 college and university buildings in accordance with Section 408.3.
- e. Group E, and daycares colocated on a Group E campus, shall jointly perform at least six fire and evacuation drills per school year.
- f. Applicable to boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.

405.2.2 Leadership. Responsibility for the planning and conduct of drills shall be assigned to competent persons designated to exercise leadership.

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

405.2.4 Record keeping. 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 evacuated.
6. Special conditions simulated.
7. Problems encountered.
8. Weather conditions when occupants were evacuated.
9. Time required to accomplish complete evacuation.

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

405.2.6 Initiation. 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 drill proposed and again at the conclusion of the transmission and restoration of the fire alarm system to normal mode.

Exception: Drills conducted between the hours of 9:00 p.m. and 6:00 a.m., in Group R-2 boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.

405.2.7 Accountability. As building occupants arrive at the assembly point, efforts shall be made to determine if all occupants have been successfully evacuated or have been accounted for.

405.2.8 Recall and reentry. An electrically or mechanically operated signal used to recall occupants after an evacuation shall be separate and distinct from the signal used to initiate the evacuation. The recall signal initiation means 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.

405.3 Shelter-in-place and lockdown drills. Shelter-in-place and lockdown drills complying with the provisions of this section shall be conducted in the occupancies listed in Section 404.3.1 or when required by the fire code official. Drills shall be designed in cooperation with the local authorities.

405.3.1 Frequency. Shelter-in-place and lockdown drills required by this section shall each be held at least annually to familiarize all occupants with the emergency procedures. Group E and colocated daycares shall drill jointly.

405.3.2 Leadership. Responsibility for the planning and conduct of drills shall be assigned to competent persons designated to exercise leadership.

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

405.3.4 Record keeping. Records shall be maintained of required shelter-in-place and lockdown 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 sheltered and unaccounted for.
6. Special conditions simulated.
7. Problems encountered and corrective actions taken.
8. Time required to accomplish complete evacuation.

405.3.5 Notification. Where required by the fire code official, prior notification of shelter-in-place and lockdown drills shall be given to appropriate emergency response agencies.

405.3.6 Signals. Alerting signals shall be separate and distinct from the fire alarm and other signals.

405.3.7 Accountability. Efforts shall be made to determine if all occupants have been successfully sheltered and accounted for.

SECTION 406 EMPLOYEE TRAINING AND RESPONSE PROCEDURES

406.1 General. Employees in the occupancies listed in Sections 404.2.1 and 404.3.1 shall be trained in the fire emergency procedures described in their fire evacuation and fire safety plans. Training shall be based on these plans and as described in Sections 404.2.2 and 404.3.2.

406.2 Frequency. Employees shall receive training in the contents of fire safety and evacuation 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, ~~and~~ fire safety, shelter-in-place, and lockdown in accordance with Sections 406.3.1 through 406.3.4.

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

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

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

406.3.4 Shelter-in-place and lockdown training. Employees shall be familiarized with the alert and recall signals, their assigned duties in the event of an alarm or emergency, communication system, location of emergency supplies, and the use of the incident notification and alert system.

SECTION 407 HAZARD COMMUNICATION

407.1 General. The provisions of Sections 407.2 through 407.7 shall be applicable where hazardous materials subject to permits under Section 2701.5 are located on the premises or where required by the fire code official.

407.2 Material Safety Data Sheets. Material Safety Data Sheets (MSDS) for all hazardous materials shall be readily available on the premises.

407.3 Identification. Individual containers of hazardous materials, cartons or packages shall be marked or labeled in accordance with applicable federal regulations. Buildings, rooms and spaces containing hazardous materials shall be identified by hazard warning signs in accordance with Section 2703.5.

407.4 Training. Persons responsible for the operation of areas in which hazardous materials are stored, dispensed, handled or used shall be familiar with the chemical nature of the materials and the appropriate mitigating actions necessary in the event of a fire, leak or spill. Responsible persons shall be designated and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses and identification of the locations where hazardous materials are located, and shall have access to Material Safety Data Sheets and be knowledgeable in the site emergency response procedures.

407.5 Hazardous Materials Inventory Statement. Where required by the fire code official, each application for a permit shall include a Hazardous Materials Inventory Statement (HMIS) in accordance with Section 2701.5.2.

407.6 Hazardous Materials Management Plan. Where required by the fire code official, each application for a permit shall include a Hazardous Materials Management Plan (HMMP) in accordance with Section 2701.5.1. The fire code official is authorized to accept a similar plan required by other regulations.

407.7 Facility closure plans. The permit holder or applicant shall submit to the fire code official a facility closure plan in accordance with Section 2701.6.3 to terminate storage, dispensing, handling or use of hazardous materials.

SECTION 408 USE AND OCCUPANCY-RELATED REQUIREMENTS

408.1 General. In addition to the other requirements of this chapter, the provisions of this section are applicable to specific occupancies listed herein.

408.2 Group A occupancies. Group A occupancies shall comply with the requirements of Sections 408.2.1 and 408.2.2 and Sections 401 through 406.

408.2.1 Seating plan. The fire safety and evacuation plans for assembly occupancies shall include the information required by Section 404.2.2.2 and a detailed seating plan, occupant load, and occupant load limit. Deviations from the approved plans shall be allowed provided the occupant load limit for the occupancy is not exceeded and the aisles and exit accessways remain unobstructed.

408.2.2 Announcements. In theaters, motion picture theaters, auditoriums and similar assembly occupancies in Group A used for noncontinuous programs, an audible announcement shall be made not more than 10 minutes prior to the start of each program to notify the occupants of the location of the exits to be used in the event of a fire or other emergency.

Exception: In motion picture theaters, the announcement is allowed to be projected upon the screen in a manner approved by the fire code official.

408.3 Group E occupancies and Group R-2 college and university buildings. Group E occupancies shall comply with the requirements of Sections 408.3.1 through 408.3.4 and Sections 401 through 406. Group R-2 college and university buildings shall comply with the requirements of Sections 408.3.1 and 408.3.3 and Sections 401 through 406.

408.3.1 First emergency evacuation drill. The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of classes.

408.3.2 Emergency evacuation drill deferral. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency specified in Section 405.2.1.

408.3.3 Time of day. Emergency evacuation drills shall be conducted at different hours of the day or evening, during the changing of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires. In Group R-2 college and university buildings, one required drill shall be held during hours after sunset or before sunrise.

408.3.4 Assembly points. Outdoor assembly areas shall be designated and shall be located a safe distance from the building being evacuated so as to avoid interference with fire department operations. The assembly areas shall be

arranged to keep each class separate to provide accountability of all individuals.

408.4 Group H-5 occupancies. Group H-5 occupancies shall comply with the requirements of Sections 408.4.1 through 408.4.4 and Sections 401 through 407.

408.4.1 Plans and diagrams. In addition to the requirements of Section 404 and Section 407.6, plans and diagrams shall be maintained in approved locations indicating the approximate plan for each area, the amount and type of HPM stored, handled and used, locations of shutoff valves for HPM supply piping, emergency telephone locations and locations of exits.

408.4.2 Plan updating. The plans and diagrams required by Section 408.4.1 shall be maintained up to date and the fire code official and fire department shall be informed of all major changes.

408.4.3 Emergency response team. Responsible persons shall be designated the on-site emergency response team and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses, identifying locations where HPM is stored, handled and used, and be familiar with the chemical nature of such material. An adequate number of personnel for each work shift shall be designated.

408.4.4 Emergency drills. Emergency drills of the on-site emergency response team shall be conducted on a regular basis but not less than once every three months. Records of drills conducted shall be maintained.

408.5 Group I-1 occupancies. Group I-1 occupancies shall comply with the requirements of Sections 408.5.1 through 408.5.5 and Sections 401 through 406.

408.5.1 Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include special staff actions including fire protection procedures necessary for residents and shall be amended or revised upon admission of any resident with unusual needs.

408.5.2 Staff training. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff at least every two months. A copy of the plan shall be readily available at all times within the facility.

408.5.3 Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire

408.8.1 Evacuation diagrams. A diagram depicting two evacuation routes shall be posted on or immediately

shall be a part of the rehabilitation training program.

Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

408.5.4 Drill frequency. Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements of Section 405.2.3.

408.5.5 Resident participation. Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point.

408.6 Group I-2 occupancies. Group I-2 occupancies shall comply with the requirements of Sections 408.6.1 and 408.6.2 and Sections 401 through 406. Drills are not required to comply with the time requirements of Section 405.2.3.

408.6.1 Evacuation not required. During emergency evacuation drills, the movement of patients to safe areas or to the exterior of the building is not required.

408.6.2 Coded alarm signal. When emergency evacuation drills are conducted after visiting hours or when patients or residents are expected to be asleep, a coded announcement is allowed instead of audible alarms.

408.7 Group I-3 occupancies. Group I-3 occupancies shall comply with the requirements of Sections 408.7.1 through 408.7.4 and Sections 401 through 406.

408.7.1 Employee training. Employees shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment. Training of new staff shall be provided promptly upon entrance on duty. Refresher training shall be provided at least annually.

408.7.2 Staffing. Group I-3 occupancies shall be provided with 24-hour staffing. Staff shall be within three floors or 300 feet (91 440 mm) horizontal distance of the access door of each resident housing area. In Use Conditions 3, 4 and 5, as defined in Chapter 2, the arrangement shall be such that the staff involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within 2 minutes of an alarm.

Exception: Staff shall not be required to be within three floors or 300 feet (9144 mm) in areas in which all locks are unlocked remotely and automatically in accordance with Section 408.4 of the *International Building Code*.

408.7.3 Notification. Provisions shall be made for residents in Use Conditions 3, 4 and 5, as defined in Chapter 2, to readily notify staff of an emergency.

408.7.4 Keys. Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.

408.8 Group R-1 occupancies. Group R-1 occupancies shall comply with the requirements of Sections 408.8.1 through 408.8.3 and Sections 401 through 406.

adjacent to every required egress door from each hotel, motel or dormitory sleeping unit.

408.8.2 Emergency duties. Upon discovery of a fire or suspected fire, hotel, motel and dormitory employees shall perform the following duties:

1. Activate the fire alarm system, where provided.
2. Notify the public fire department.
3. Take other action as previously instructed.

408.8.3 Fire safety and evacuation instructions.

Information shall be provided in the fire safety and evacuation plan required by Section 404 to allow guests to decide whether to evacuate to the outside, evacuate to an area of refuge, remain in place, or any combination of the three.

408.9 Group R-2 occupancies. Group R-2 occupancies shall comply with the requirements of Sections 408.9.1 through 408.9.3 and Sections 401 through 406.

408.9.1 Emergency guide. A fire emergency guide shall be provided which describes the location, function and use of fire protection equipment and appliances accessible to residents, including fire alarm systems, smoke alarms, and portable fire extinguishers. The guide shall also include an emergency evacuation plan for each dwelling unit.

408.9.2 Maintenance. Emergency guides shall be reviewed and approved in accordance with Section 401.2.

408.9.3 Distribution. A copy of the emergency guide shall be given to each tenant prior to initial occupancy.

408.10 Group R-4 occupancies. Group R-4 occupancies shall comply with the requirements of Sections 408.10.1 through 408.10.5 and Sections 401 through 406.

408.10.1 Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include special staff actions, including fire protection procedures necessary for residents, and shall be amended or revised upon admission of a resident with unusual needs.

408.10.2 Staff training. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff at least every two months. A copy of the plan shall be readily available at all times within the facility.

408.10.3 Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

408.10.4 Drill frequency. Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements of Section 405.4.

408.10.5 Resident participation. Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills.

Exception: Actual exiting from windows shall not be required. Opening the window and signaling for help shall be an acceptable alternative.

408.11 Covered mall buildings. Covered mall buildings shall comply with the provisions of Sections 408.11.1 through 408.11.3.

408.11.1 Lease plan. A lease plan shall be prepared for each covered mall building. The plan shall include the following information in addition to that required by Section 404.2.2.2:

1. Each occupancy, including identification of tenant.
2. Exits from each tenant space.
3. Fire protection features, including the following:
 - Fire department connections.
 - Fire command center.
 - Smoke management system controls.
 - Elevators and elevator controls.
 - Hose valves outlets.
 - Sprinkler and standpipe control valves.
 - Automatic fire-extinguishing system areas.
 - Automatic fire detector zones.
 - Fire barriers.

408.11.1.1 Approval Submittal. The lease plan shall be submitted to the fire code official for approval, and shall be maintained on site for immediate reference by responding fire service personnel.

408.11.1.2 Revisions. The lease plans shall be reviewed and revised annually or as often as necessary to keep them current. Modifications or changes in tenants or occupancies shall not be made without prior approval of the fire code official and building official.

408.11.2 Tenant identification. Each occupied tenant space provided with a secondary exit to the exterior or exit corridor shall be provided with tenant identification by business name and/or address. Letters and numbers shall be posted on the corridor side of the door, be plainly legible and shall contrast with their background.

Exception: Tenant identification is not required for anchor stores.

408.11.3 Maintenance. Unoccupied tenant spaces shall be:

1. Kept free from the storage of any materials.
2. Separated from the remainder of the building by partitions of at least 0.5-inch-thick (12.7 mm) gypsum board or an approved equivalent to the underside of the ceiling of the adjoining tenant spaces.
3. Without doors or other access openings other than one door that shall be kept key locked in the closed position except during that time when opened for inspection.
4. Kept free from combustible waste and be broom swept clean.

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.

(Insert Facing Page 41)

503.3 Marking. This section is not adopted.

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

(Insert Facing Page 42)

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

Exception: Fire flow is not required for structures under 500 square feet with a B, U or R-1 occupancy where structures are at least 30 feet from any other structure and are used only for recreation.

801.1 Scope. The provisions of this chapter shall govern interior finish, interior trim, furniture, furnishings, decorative materials and decorative vegetation in buildings. Sections 803 through 808 of this code shall be applicable to existing buildings. Section 803 of the International Building Code and Sections 804 through 808 of this code shall be applicable to new buildings.

806.1.1 Restricted occupancies. Natural cut trees shall be prohibited in Group I-1, I-2, I-3, I-4, and R-2 occupancies providing licensed care to clients in one of the categories listed in IBC section 310.1 regulated by either the Washington Department of Health or the Department of Social and Health Services.



(Insert Facing Page 61)

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	¼ to 1
4 to 6	1½	1¼ to 1½
7 to 8	2	1¾ to 2
9 to 12	3	2¼ to 3
13 and over	4	Over 3

806.1.3 Dryness. The tree shall be removed from the building whenever the tree needles or leaves fall off readily when a tree branch is shaken or if the needles are brittle and break when bent between the thumb and the index finger, or whenever determined necessary by the fire code official. The tree shall be checked daily for dryness.

(Insert Facing Page 62)

PORTABLE SCHOOL CLASSROOM. A structure, transportable in one or more sections, which requires a chassis to be transported, and is designed to be used as an educational space with or without a permanent foundation. The structure shall be trailerable and capable of being demounted and relocated to other locations as needs arise.

(Insert Facing Page 68)



903.2.2 Group E. An automatic sprinkler system shall be provided for Group E occupancies.

Exceptions:

1. Portable school classrooms, provided aggregate area of any cluster or portion of a cluster of portable school classrooms does not exceed 5,000 square feet (1465 m²); and clusters of portable school classrooms shall be separated as required in Chapter 5 of the Building Code.
2. Group E occupancies with an occupant load of 50 or less.



(Insert Facing Page 69)

903.2.7 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.

(Insert Facing Page 70)

903.6.2 Nightclub. An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code. An existing nightclub constructed prior to July 1, 2006, shall be provided with automatic sprinklers not later than December 1, 2009.

(Insert Facing Page 74)

909.6.3 Elevator Shaft Pressurization. Where elevator shaft pressurization is required to comply with Exception 6 of IBC Section 707.14.1, the pressurization system shall comply with and be maintained in accordance with IBC Section 707.14.2.

909.6.3.1 Activation. The elevator shaft pressurization system shall be activated by a fire alarm system which shall include smoke detectors or other approved detectors located near the elevator shaft on each floor as approved by the building official and fire code official. If the building has a fire alarm panel, detectors shall be connected to, with power supplied by, the fire alarm panel.

909.6.3.2 Power system. The power source for the fire alarm system and the elevator shaft pressurization system shall be in accordance with Section 909.11.



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1008.1.2 Door Swing. Egress doors shall be side-hinged swinging.

Exceptions:

1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.
2. Group I-3 occupancies used as a place of detention.
3. Critical or intensive care patient rooms within suites of health care facilities.
4. Doors within or serving a single dwelling unit in Groups R-2 and R-3 as applicable in Section 101.2.
5. In other than Group H occupancies, revolving doors complying with Section 1008.1.3.1.
6. In other than Group H occupancies, horizontal sliding doors complying with Section 1008.1.3.3 are permitted in a means of egress.
7. Power-operated doors in accordance with Section 1008.1.3.2.
8. Doors serving a bathroom within an individual sleeping unit in Group R-1.
9. In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a means of egress from spaces with an occupant load of 10 or less.

Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons or a Group H occupancy.

The opening force of interior side-swinging doors without closers shall not exceed a 5-pound (22N) force. For other side-swinging, sliding, and folding doors, the door latch shall release when subjected to a 15-pound (67N) force. The door shall be set in motion when subjected to a 30-pound (133N) force. The door shall swing to a full-open position when subjected to a 15-pound (67N) force. Forces shall be applied to the latch side.

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1009.12 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.

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intervening rooms where the travel distance to the exit access door is not greater than 50 feet (15,240 mm).

1014.2.5 Travel distance. The travel distance between any point in a Group I-2 occupancy patient room and an exit access door in that room shall not exceed 50 feet (15,240 mm).

1014.2.6 Separation. Suites in Group I-2 occupancies shall be separated from other portions of the building by a smoke partition complying with Section 710.

1014.2.2 Group I-2. Habitable rooms or suites in Group I-2 occupancies shall have an exit access door leading directly to a corridor.

⇒ **Exception:** Rooms with exit doors opening directly to the outside at ground level.

1014.2.2.1 Definition. For the purposes of this section, a suite is defined as a cluster of rooms or spaces sharing common circulation. Partitions within a suite are not required to have smoke or fire-resistance-rated construction unless required by another section of this Code.

1014.2.3 Suites in patient sleeping areas. Patient sleeping areas in Group I-2 occupancies shall be permitted to be divided into suites if one of the following conditions is met:

1. The intervening room within the suite is not used as an exit access for more than eight patient beds.
2. The arrangement of the suite allows for direct and constant visual supervision by nursing personnel.

1014.2.3.1 Area. Suites of sleeping rooms shall not exceed 5,000 square feet (465 m²).

1014.2.3.2 Exit access. Any patient sleeping room, or any suite that includes patient sleeping rooms, of more than 1,000 square feet (93 m²) shall have at least two exit access doors remotely located from each other.

1014.2.3.3 Travel distance. The travel distance between any point in a suite of sleeping rooms and an exit access door of that suite shall not exceed 100 feet (30,480 mm).

1014.2.4 Suites in areas other than patient sleeping areas. Areas other than patient sleeping areas in Group I-2 occupancies shall be permitted to be divided into suites.

1014.2.4.1 Area. Suites of rooms, other than patient rooms, shall not exceed 10,000 square feet (929 m²).

1014.2.4.2 Exit access. Any rooms or suite of rooms, other than patient sleeping rooms, of more than 2,500 square feet (232 m²) shall have at least two exit access doors remotely located from each other.

1014.2.4.3 One intervening room. For rooms other than patient sleeping rooms, suites of rooms are permitted to have one intervening room if the travel distance within the suite is not greater than 100 feet (30,480 mm).

1014.2.4.4 Two intervening rooms. For rooms other than patient sleeping rooms located within a suite, exit access travel from within the suite shall be permitted through two

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1015.1 Exits or exit access doorways from spaces. Two exits or exit access doorways from any space shall be provided where one of the following conditions exists:

1. The occupant load of the space exceeds one of the values in Table 1015.1

Exception: One means of egress is permitted within and from dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

2. The common path of egress travel exceeds one of the limitations of Section 1014.3.
3. Where required by Sections 1015.3, 1015.4, 1015.5, 1015.6 or 1015.6.1.

Exception: Group I-2 occupancies shall comply with Section 1014.2.2.

1015.1.1 Three or more exits or exit access doorways.

Three exits or exit access doorways shall be provided from any space with an occupant load of 501-1000. Four exits or exit access doorways shall be provided from any space with an occupant load greater than 1000.

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5. In Group R-2 boarding homes and residential treatment facilities licensed by Washington state, rest areas constructed as required for corridors shall be allowed to be open to the corridor provided:
 - 5.1 The area does not exceed 150 square feet, excluding the corridor width;
 - 5.2 The floor is separated into at least two compartments complying with Section 407.4;
 - 5.3 Combustible furnishings located within the rest area shall be in accordance with the International Fire Code section 805;
 - 5.4 Emergency means of egress lighting is provided as required by Section 1006 to illuminate the area.

1017.1 Construction. Corridors shall be fire-resistance rated in accordance with Table 1017.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 of the International Building Code for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has at least one door directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling or sleeping unit in an occupancy in Group R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1015.1.

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1019.1 Exits from stories. All spaces within each story shall have access to the minimum number of exits as specified in Table 1019.1 based on the occupant load of the story, except as modified in Section 1019.2. For the purposes of this chapter, occupied roofs shall be provided with exits as required for stories. The required number of exits from any story, including basements, shall be maintained until arrival at grade or the public way.

Exception: One means of egress is permitted within and from dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

1017.6 Subdivision of building spaces--Smoke barriers.

Smoke barriers complying with Section 709 shall be installed on floors other than the level of exit discharge of a Group R-2 boarding home or residential treatment facility licensed by Washington state, where a fire-resistance rated corridor is required by Table 1017.1. The smoke barrier shall subdivide the floor into at least two compartments complying with Section 407.4.

(Insert Facing Page 125)

1019.2 Buildings with one exit. Only one exit shall be required in buildings as specified below:

1. Buildings meeting the limitations of Table 1019.2, provided the building has not more than one level below the first story above grade plane.
2. Buildings of Group R-3 occupancy.
3. Single-level buildings with occupied spaces at the level of exit discharge provided each space complies with Section 1015.1 as a space with one exit or exit access doorway.

1106.5.1 Positioning of aircraft fuel-servicing vehicles.

Aircraft-fueling vehicles shall not be located, parked or permitted to stand in a position where such unit would obstruct egress from an aircraft should a fire occur during fuel-transfer operations. Tank vehicles shall not be located, parked or permitted to stand under any portion of an aircraft except during refueling.

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3006.1 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 this section in addition to other requirements of this chapter.

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

3006.4 Medical gas systems. This section is not adopted.

(Insert Facing Page 276)

3301.1 Scope. The provisions of this chapter shall govern the possession, manufacture, storage, handling, sale and use of explosives, explosive materials, and small arms ammunition. The manufacture, storage, handling, sale and use of fireworks shall be governed by Chapter 70.77 RCW and by Chapter 212-17 WAC and local ordinances consistent with Chapter 212-17 WAC.

Exceptions:

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

3301.1.1 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.

MOTOR VEHICLE. For the purposes of this chapter, the term motor vehicle includes, but is not limited to, a vehicle, machine, tractor, trailer, or semi-trailer, or any combination thereof, propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property. The term "motor vehicle" also includes freight containers or cargo tanks used, or intended for use, in connection with motor vehicles. For reference, see 49 CFR Pt. 171.8 (October 1994).

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3404.2.7.10.1 Leaking tank disposition. Leaking tanks shall be handled in accordance with WAC 173-360-325.

3404.2.7.11 Tank Lining. Steel tanks are allowed to be lined only for the purpose of protecting the interior from corrosion or providing compatibility with a material to be stored. Only those liquids tested for compatibility with the lining material are allowed to be stored in lined tanks. Lining of leaking underground storage tanks shall be done in accordance with the provisions of WAC 173-360-325.

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3404.2.8.7 Arrangement. Tanks shall be listed for above-ground use, and each tank shall be in its own vault.

Exception: Below-grade vaults may contain a maximum of three tanks.

Compartmentalized tanks shall be allowed and shall be considered as a single tank. Adjacent vaults shall be allowed to share a common wall. The common wall shall be liquid and vapor tight and shall be designed to withstand the load imposed when the vault on either side of the wall is filled with water.

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3404.2.11 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.

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3405.4.1 Unit with a capacity of 60 gallons or less.

Solvent distillation units used to recycle Class I, II or IIIA liquids having a distillation chamber capacity of 60 gallons or less shall be listed, labeled and installed in accordance with Section 3405.4 and UL 2208.

Exceptions:

1. Solvent distillation units installed in dry cleaning plants in accordance with Chapter 12.
2. Solvent distillation units used in continuous through-put industrial processes where the source of heat is remotely supplied using steam, hot water, oil or other heat transfer fluids, the temperature of which is below the auto-ignition point of the solvent.
3. Approved research, testing and experimental processes.

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3406.5.4 Dispensing from tank vehicles and tank cars.

Class I, II or III liquids shall be transferred from a tank vehicle or tank car only into an approved atmospheric tank or approved portable tank, except as provided in Sections 3406.5.4.1 through 3406.5.4.5.

3406.5.4.1 Marine craft and special equipment. Liquids intended for use as motor fuels are allowed to be transferred from tank vehicles into the fuel tanks of marine craft and special equipment when approved by the fire code official, and when:

1. The tank vehicle's specific function is that of supplying fuel to fuel tanks.

(Insert Facing Page 340)

2. The operation is not performed where the public has access or where there is unusual exposure to life and property.
3. The dispensing line does not exceed 50 feet in length.
4. The dispensing nozzle is approved.
5. Each premises is issued a separate permit in accordance with Section 105.6.17.

6. Mobile fueling shall not take place within 15 feet of streets, alleys, public ways, buildings, property lines, combustible storage or storm drains.

Exceptions:

1. The distance to storm drains can be eliminated if an approved storm drain cover or an approved equivalent that will prevent any fuel from reaching the drain is in place prior to fueling or hose being placed within 15 feet of the drain. When placement of a storm drain cover will cause the accumulation of excessive water or difficulty in safely conducting the fueling, it shall not be used and the fueling shall not take place within 15 feet of a drain.
2. The distance to storm drains can be eliminated for drains that direct intake to approved oil-water separators.

3406.5.4.5 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 clean up supplies in accordance with the Department of Ecology's Stormwater Management Manual for Western Washington, Volume IV – Source Control BMP (Publication No. 99-14). Such supplies shall be readily available for employment by the operator at all times.

17. Fuel dispensing is prohibited within 25 feet of any source of ignition.
25. Operators shall place a drip pan or absorbent, in good condition, under each fuel fill opening prior to and during all dispensing operations. Drip pans shall be liquid tight. The pan or absorbent shall have a capacity of at least 3 gallons. Spills retained in the drip pan or absorbent pillow need not be reported. Operators, when fueling, shall have on their persons an absorbent pad capable of capturing diesel foam overfills. Except during fueling, the nozzle shall face upwards and an absorbent pad shall be kept under the nozzle to prevent drips. Contaminated absorbent pads shall be disposed of regularly in accordance with local, state and federal requirements.
26. All persons and parties with an interest in the property (i.e., property owner, lessor, real-estate company, property manager as well as operators of the property) must give consent in writing to allow the mobile fueling to occur on the property. Managers, lessees, renters and other persons cannot solely give permission. Each person or party must indicate that they understand the risk of spills.

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CHAPTER 46

MARINAS

SECTION 4601

4601.1 Scope. Marina facilities shall be in accordance with this chapter.

4601.1.1 Plans and approvals. Plans for marina fire-protection facilities shall be approved prior to installation. The work shall be subject to final inspection and approval after installation.

4601.1.2 Permits. Permits are required to use open-flame devices for maintenance or repair on vessels, floats, piers or wharves.

SECTION 4602 DEFINITIONS

4602.1 Definitions. The following words and terms shall, for the purpose of this chapter and as used elsewhere in this code, have the meanings shown herein.

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

DRAFT CURTAIN is a structure arranged to limit the spread of smoke and heat along the underside of the ceiling or roof.

FLOAT is a floating structure normally used as a point of transfer for passengers and goods, or both, for mooring purposes.

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

MARINA is any portion of the ocean or inland water, either naturally or artificially protected, for the mooring, servicing or safety of vessels and shall include artificially protected works, the public or private lands ashore, and structures or facilities provided within the enclosed body of water and ashore for the mooring or servicing of vessels or the servicing of their crews or passengers.

PIER is a structure built over the water, supported by pillars or piles, and used as a landing place, pleasure pavilion or similar purpose.

VESSEL is watercraft of any type, other than seaplanes on the water, used or capable of being used as a means of transportation. Included in this definition are nontransportation vessels such as houseboats and boathouses.

WHARF is a structure or bulkhead constructed of wood, stone, concrete or similar material built at the shore of a harbor, lake or river for vessels to lie alongside of, and piers or floats to be anchored to.

SECTION 4603 GENERAL PRECAUTIONS

4603.1 Combustible Debris. Combustible debris and rubbish shall not be deposited or accumulated on land beneath marina structures, piers or wharves.

4603.2 Sources of Ignition. Open-flame devices used for lighting or decoration on the exterior of a vessel, float, pier or wharf shall be approved.

4603.3 Flammable or Combustible Liquid Spills. Spills of flammable or combustible liquids at or upon the water shall be reported immediately to the fire department or jurisdictional authorities.

4603.4 Rubbish Containers. Containers with tight-fitting or self-closing lids shall be provided for the temporary storage of combustible trash or rubbish.

4603.5 Electrical Equipment. Electrical equipment shall be installed and used in accordance with its listing and Section 605 as required for wet, damp and hazardous locations.

SECTION 4604 FIRE-PROTECTION EQUIPMENT

4604.1 General. Marinas, piers, wharves, floats with facilities for mooring or servicing fire or more vessels, and marine motor vehicle fuel-dispensing stations shall be equipped with fire-protection equipment in accordance with Section 4604.

4604.2 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.

406.2.1 Identification of standpipe outlets. Standpipe outlet locations shall be clearly identified by a flag or other approved means designed to be readily visible from the pier accessing the float system.

4604.3 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.

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4604.4 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.

4604.5 Communications. A telephone not requiring a coin to operate or other approved, clearly identified means to notify the fire department shall be provided on the site in a location approved by the code official.

4604.6 Equipment staging areas. Space shall be provided on all float systems for the staging of emergency equipment. Staging areas shall provide a minimum of 4 feet wide by 10 feet long clear area exclusive of walkways and shall be located at each standpipe outlet. Staging areas shall be provided with barriers having a minimum height of 4 inches and maximum space between the bottom barrier edge and surface of the staging area of 2 inches on the outboard sides to prevent loss of equipment overboard. A sign reading "Fire Equipment Staging Area - Keep Clear" shall be provided at each staging area to prevent obstruction.

4604.7 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.

4604.7.1 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.

4604.7.1.1 Smoke and heat vents. Smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) above ambient.

Exception: Gravity-operated drop out vents.

4604.7.1.2 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.

4604.8 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.

4604.8.1 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.

4604.8.2 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.

SECTION 4605 MARINE MOTOR VEHICLE FUEL-DISPENSING STATIONS

4605.1 Fuel-Dispensing. Marine motor vehicle fuel-dispensing stations shall be in accordance with Chapter 22.