RULE-MAKING ORDER
(RCW 34.05.360)

CR-103 (10/1/89)

Agency: State Building Code Council

☒ Permanent Rule
☐ Emergency Rule

(1) Date of adoption: November 8, 1991

(2) Purpose:
To adopt by reference the 1991 editions of the Uniform Fire Code and the Uniform Fire Code Standards with amendments - Chapters 51-24 and 51-25 WAC.

(3) Citation of existing rules affected by this order:
Repealed:
Amended:
Suspended:

(4) Authority for adoption: RCW 19.27.074, 19.27.031
Statute: RCW 19.27
Other Authority:

(5.1) **PERMANENT RULE ONLY**
Pursuant to notice filed as WSR 91-16-115 on August 7, 1991 (date).
Describe any changes other than editing from proposed to adopted version:
See Attached Page.

(5.2) **EMERGENCY RULE ONLY**
Pursuant to RCW 34.05.350 the agency for good cause finds:
☐ (a) That immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.
☐ (b) That state or federal law or federal rule or a federal deadline for state receipt of federal funds requires immediate adoption of a rule.

Reasons for this finding:

(5.3) Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?
☐ Yes ☒ No If yes, explain:

(6) Effective date of rule:

Permanent Rules	Emergency Rules
☐ 31 days after filing	☐ Immediately
☒ Other (specify) July 1, 1992*	☐ Later (specify) _____

*(If less than 31 days after filing, specific finding in 5.3 under RCW 34.05.380(3) is required)

NAME (TYPE OR PRINT)
Gene J. Colin

SIGNATURE

TITLE
Chair

DATE
11/8/91

CODE REVISER USE ONLY
CODE REVISER'S OFFICE
STATE OF WASHINGTON
FILED

DEC 13 1991

TIME: 10:29 AM PM
WSR 92-01-065

CR-103

Uniform Fire Code and Standards Adoption

(5.1) continued

Describe any changes other than editing from proposed to adopted version:

WAC 51-24-10507 (e) 3. This section was amended to: 1) note that the requirements only apply to new buildings constructed after July 1, 1992; 2) added a NOTE as to the applicability of this section to structural additions, repairs, and alterations to existing buildings; 3) under the exception, the aggregate area of clustered portable school classrooms was reduced to 5,000 square feet; and 4) the area and height increases as well as the allowance of one-hour construction substitution was further defined.

WAC 51-24-79601 (d). This section was amended to allow an alternative to the handling of leaking tanks. A leaking tank shall either be emptied and removed or repaired in accordance with WAC 173-360.

Chapter 51-24 WAC

STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE 1991 EDITION OF THE UNIFORM FIRE CODE

NEW SECTION

WAC 51-24-001 AUTHORITY. These rules are adopted under the authority of chapter 19.27 RCW.

NEW SECTION

WAC 51-24-002 PURPOSE. The purpose of these rules is to implement the provisions of chapter 19.27 RCW, which provides that the state building code council shall maintain the State Building Code in a status which is consistent with the purpose as set forth in RCW 19.27.020. In maintaining the codes the council shall regularly review updated versions of the codes adopted under the act, and other pertinent information, and shall amend the codes as deemed appropriate by the council.

NEW SECTION

WAC 51-24-003 UNIFORM FIRE CODE. The 1991 edition of the Uniform Fire Code published by the International Conference of Building Officials and the Western Fire Chiefs Association is hereby adopted by reference with the following additions, deletions, and exceptions.

NEW SECTION

WAC 51-24-007 EXCEPTIONS. The exceptions and amendments to the Uniform 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.

NEW SECTION

WAC 51-24-008 IMPLEMENTATION. The Uniform Fire Code adopted by chapter 51-24 WAC shall become effective in all counties and cities of this state on July 1, 1992, unless local amendments have been approved by the state building code council.

NEW SECTION

WAC 51-24-04000 ARTICLE 4. PERMITS.

NEW SECTION

WAC 51-24-04123 TABLE NO. 4.108-C, PERMIT AMOUNTS FOR HAZARDOUS MATERIALS.

TABLE NO. 4.108-C

PERMIT AMOUNTS FOR HAZARDOUS MATERIALS[1]

TYPE OF MATERIAL		AMOUNT
Cellulose nitrate		See No. c.4
Combustible fiber		See No. c.5
Combustible liquids		See No. f.3
Corrosive gases		See No. c.7
Corrosive liquids		55 gallons
Cryogens		See No. c.8
Explosives		See No. e.1
Flammable gases		See No. c.7
Flammable liquids		See No. f.3
Flammable solids		100 pounds
Highly toxic gases (including pesticides and fumigants)		See No. c.7
Highly toxic liquids and solids (including pesticides and fumigants)		Any amount
Liquified petroleum gases		See No. l.1
Magnesium		See No. m.1
Nitrate film		See No. c.3
Oxidizing gases		See No. c.7
Oxidizing liquids:	Class 4	Any amount
	Class 3	1 gallon
	Class 2	10 gallons
	Class 1	55 gallons
Oxidizing solids:	Class 4	Any amount
	Class 3	10 pounds
	Class 2	100 pounds
	Class 1	500 pounds
Organic peroxide liquids and solids:	Class I	Any amount
	Class II	Any amount
	Class III	10 pounds
	Class IV	20 pounds
Pyrophoric gases		See No. c.7
Pyrophoric liquids		Any amount
Pyrophoric solids		Any amount
Radioactive materials (including gases, liquids and solids)		See No. r.1
Toxic gases		See No. c.7
Toxic liquids		50 gallons
Toxic solids		500 pounds

TABLE NO. 4.108-C--PERMIT AMOUNTS FOR HAZARDOUS MATERIALS[1]
(continued)

TYPE OF MATERIAL		AMOUNT
Unstable (reactive) gases		See No. c.7
Unstable (reactive liquids:	Class 4	Any amount
	Class 3	Any amount
	Class 2	5 gallons
	Class 1	10 gallons
Unstable (reactive) solids:	Class 4	Any amount
	Class 3	Any amount
	Class 2	50 pounds
	Class 1	100 pounds
Water-reactive liquids:	Class 3	Any amount
	Class 2	5 gallons
	Class 1	10 gallons
Water-reactive solids:	Class 3	Any amount
	Class 2	50 pounds
	Class 1	100 pounds

[1] See Article 80 for additional requirements and exceptions.

NEW SECTION

WAC 51-24-09000 ARTICLE 9. DEFINITIONS AND ABBREVIATIONS.

NEW SECTION

WAC 51-24-09105 SECTION 9.105. CARCINOGEN is a substance that causes the development of cancerous growths in living tissue. A chemical is considered to be a carcinogen if:

(a) It has been evaluated by the International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen, or

(b) It is listed as a carcinogen or potential carcinogen in the latest edition of the Annual Report on Carcinogens published by the National Toxicology Program, or

(c) It is regulated by OSHA as a carcinogen.

CARGO TANK is a container having a liquid capacity in excess of 110 gallons used for carrying flammable or combustible liquids, LP-gas, or hazardous chemicals and mounted permanently or otherwise upon a tank vehicle. The term "cargo tank" does not apply to containers solely for the purpose of supplying fuel for propulsion of the vehicle upon which it is mounted.

CARNIVAL is a mobile enterprise principally devoted to offering amusement or entertainment to the public in, upon or by means of portable amusement rides or devices or temporary structures in any number or combination, whether or not associated with other structures or forms of public attraction.

CEILING LIMIT is the maximum concentration of an airborne contaminant to which one may be exposed. The ceiling limits utilized are to be those published in 29 CFR 1910.1000.

CELLULOSE NITRATE PLASTICS (Pyroxylin) is a plastic substance, material or compound, other than cellulose nitrate film, covered by Article 33, or guncotton or other explosive covered by Article 77, having cellulose nitrate as a base, or whatever name known, when in the form of blocks, slabs, sheets, tubes or fabricated shapes. For requirements, see Article 27.

CENTRAL SUPPLY is that portion of system which normally supplies piping systems.

CGA is the Compressed Gas Association.

CFR is the Code of Federal Regulations of the United States Government.

CHEMICAL is any element, chemical compound or mixture of elements or compounds or both.

CHEMICAL NAME is the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry, the Chemical Abstracts Service rules of nomenclature, or a name which will clearly identify a chemical for the purpose of conducting an evaluation.

CHEMICAL PLANT is a plant or that portion of a plant other than a refinery or distillery where flammable or combustible liquids are produced by chemical reactions or used in chemical reactions.

CHIEF OR CHIEF OF THE FIRE DEPARTMENT is the chief officer of the fire department serving the jurisdiction or the chief officer's authorized representative.

CHIEF ENGINEER is the chief.

CHIEF OF THE POLICE or POLICE DEPARTMENT is the chief law enforcement officer of the jurisdiction or the chief law enforcement officer's authorized representative.

CHIEF OF THE BUREAU OF FIRE PREVENTION is the head of the fire prevention bureau.

CLASSIFIED PRODUCT is a product that has been evaluated with respect to (a) the properties of the product, (b) a limited spectrum of hazards to life or property, (c) suitability of the product for certain uses and (d) other conditions by a nationally recognized testing laboratory or approved organization.

CLOSED CONTAINER is a container sealed by means of a lid or other device such that liquid, vapor or dusts will not escape from it under ordinary conditions of use or handling.

COMBUSTIBLE FIBERS are readily ignitable and free-burning fibers, such as cotton, sisal, henequen, ixtle, jute, hemp, tow, cocoa fiber, oakum, baled waste, baled wastepaper, kapok, hay, straw, excelsior, Spanish moss or other like materials.

COMBUSTIBLE FIBER STORAGE BIN is a metal or metal-lined container with a capacity not exceeding 100 cubic feet and equipped with a self-closing cover.

COMBUSTIBLE FIBER STORAGE ROOM is a room with a capacity not exceeding 500 cubic feet separated from the remainder of a building by not less than a one-hour occupancy separation constructed in accordance with the Building Code.

COMBUSTIBLE FIBER STORAGE VAULT, PROTECTED, is a room with a capacity exceeding 1,000 cubic feet separated from a remainder of a building by not less than a two-hour occupancy separation constructed in accordance with the Building Code and provided with an approved automatic sprinkler system.

COMBUSTIBLE FIBER STORAGE VAULT, UNPROTECTED, is a room with a capacity not exceeding 1,000 cubic feet separated from the remainder of the building by a two-hour occupancy separation constructed in accordance with the Building Code and provided with approved safety vents to the outside.

COMBUSTIBLE LIQUID is a liquid having a flash point at or above 100°F. Combustible liquids are subdivided as follows:

Class II liquids are those having flash points at or above 100°F. and below 140°F.

Class III-A liquids are those having flash points at or above 140°F. and below 200°F.

Class III-B liquids are those liquids having flash points at or above 200°F.

COMBUSTIBLE WASTE MATTER includes magazines; books; trimmings from lawns, trees or flower gardens; pasteboard boxes; rags; paper; straw; sawdust; packing material; shavings; boxes; rubbish; and refuse that will ignite through contact with flames of ordinary temperatures.

COMMODITY is a combination of products, packing materials and containers.

COMPRESSED GAS is (a) a gas or mixture of gases having an absolute pressure exceeding 40 psi at 70°F. in a container, or

(b) A gas or mixture of gases having an absolute pressure exceeding 104 psi in a container at 130°F., regardless of the pressure at 70°F., or

(c) A liquid having a vapor pressure exceeding 40 psi at 100°F. as determined by UFC Standard No. 9-5.

CONDENSATE TANK is a tank which is installed in the vapor-return piping of a vapor-recovery system to collect condensed gasoline and is capable of being emptied of liquids without opening.

CONGREGATE RESIDENCE is any building or portion thereof which contains facilities for living, sleeping and sanitation, as required by the Building Code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate residence may be a shelter, convent, monastery, dormitory, fraternity or sorority house but does not include jails, hospitals, nursing homes, hotels or lodging houses.

CONTAINER. See Articles 79 and 80.

CONTINUOUS GAS-DETECTION SYSTEM is a gas-detection system where the analytical instrument is maintained in continuous operation and sampling is performed without interruption. Analysis may be performed on a cyclical basis at intervals not to exceed 30 minutes.

CONTROL AREA is a space within a building where the exempt amounts may be stored, dispensed, used or handled. Storage or use of

quantities in excess of those listed in the tables are required by UBC 901 to be rated as the appropriate Group H Occupancy.

CONVERSION OIL BURNER is a burner for field installation in heating appliances such as boilers and furnaces. It may be furnished with or without a primary safety control. Under special circumstances, it may be installed for firing ovens, water heaters, ranges, special furnaces and the like. A burner of this type may be a pressure-atomizing gun type, a horizontal or vertical rotary type, or a mechanical or natural draft-vaporizing type.

CONVERSION RANGE OIL BURNER is an oil burner designed to burn kerosene, range oil or similar fuel. It is intended primarily for installation in a stove or range, a portion or all of which was originally designed to utilize solid fuel and to which a flue is connected.

CORROSIVE is a chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. A chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described in Appendix A to CFR 49 Part 173, it destroys or changes irreversibly the structure of the tissue at the site of contact following an exposure period of four hours. This term does not refer to action on inanimate surfaces.

CORROSIVE LIQUID is a liquid which, when in contact with living tissue, will cause destruction or irreversible alteration of such tissue by chemical action. Examples include acidic, alkaline or caustic materials.

COVERED MALL BUILDING is a single building enclosing a number of tenants and occupancies such as retail stores, drinking and dining establishments, entertainment and amusement facilities, offices, and other similar uses wherein two or more tenants have a main entrance into one or more malls.

CRUDE PETROLEUM is a hydrocarbon mixture that has a flash point below 150°F. and which has not been processed in a refinery.

CRYOGENIC FLUID is a fluid that has a normal boiling point below 150°F.

CRYOGENIC IN-GROUND CONTAINER is a container in which the maximum liquid level is below the normal surrounding grade and is constructed essentially of natural materials such as earth and rock and dependent upon the freezing of water-saturated earth materials for its tightness or impervious nature.

CRYOGENIC VESSEL is a pressure vessel, low-pressure tank or atmospheric tank designed to contain a cryogenic fluid on which venting, insulation, refrigeration or a combination of these is used in order to maintain the operating pressure within the design pressure and the contents in a liquid phase.

CUT-OFF STORAGE is indoor storage which is separated from other building areas by not less than a two-hour fire-resistive occupancy separation.

CYLINDER is a pressure vessel designed for pressures higher than 40 pounds per square inch, absolute and having a circular cross section. It does not include a portable tank, multiunit tank car tank, cargo tank or tank car.

NEW SECTION

WAC 51-24-09107 SECTION 9.107. ELECTRICAL BLASTING CAP is a shell containing a charge of detonating compound designed to be fired by an electric current.

ELECTRICAL CODE is the National Electrical Code, promulgated by the National Fire Protection Association, as adopted by the Washington State Department of Labor and Industries, Electrical Section.

ELECTRICAL FIRING UNIT is the source of electrical current used to ignite electric matches. Generally, the firing unit will have switches to control the routing of the current to various firework items and will have a test circuit and warning indicators.

ELECTROSTATIC FLUIDIZED BED is a container holding powder coating material which is aerated from below so as to form an air-supported expanded cloud of such material which is electrically charged with a charge opposite to the charge of the object to be coated. Such object is transported through the container immediately above the charged and aerated materials in order to be coated.

ENCAPSULATED is a method of packaging consisting of a plastic sheet completely enclosing the sides and top of a pallet load. The term encapsulated does not apply to banding or individual plastic-enclosed items inside a large nonplastic-enclosed container.

EXCESS FLOW CONTROL is a fail-safe system designed to shut off flow due to a rupture in pressurized piping systems.

EXCESS FLOW VALVE is a valve inserted into a compressed gas cylinder, portable tank or stationary tank that is designed to positively shut off the flow of gas in the event that its predetermined flow is exceeded.

EXECUTIVE BODY is the governing body of the jurisdiction adopting this code.

EXIT is a continuous and unobstructed means of egress to a public way, and shall include aisles, doors, doorways, gates, corridors, exterior exit balconies, ramps, stairways, smokeproof enclosures, horizontal exits, exit passageways, exit courts and yards.

EXIT COURT is a yard or court providing egress to a public way for one or more required exits.

EXIT PASSAGEWAY is an enclosed means of egress connecting a required exit or exit court with a public way.

EXPLOSION is an effect produced by the sudden violent expansion of gases, which may be accompanied by a shock wave or disruption, or both, of enclosing materials or structures. An explosion may result from (a) chemical changes such as rapid oxidation, deflagration or detonation, decomposition of molecules and runaway polymerization (usually detonations); (b) physical changes such as pressure tank ruptures; or (c) atomic changes (nuclear fission or fusion).

EXPLOSIVE is (a) a chemical that causes a sudden, almost instantaneous release of pressure, gas and heat when subjected to sudden shock, pressure, or high temperatures or (b) a material or chemical, other than a blasting agent, that is commonly used or intended to be used for the purpose of producing an explosive effect and is regulated by Article 77.

EXPLOSIVE MATERIALS are explosives, blasting agents and detonators including, but not limited to, dynamite and other high explosives; slurries, emulsions and water gels; black powder and pellet

powder; initiating explosives; detonators or blasting caps; safety fuses; squibs; detonating cord; igniter cord; igniters and Class B special fireworks.

EXTENSION CORD and PORTABLE FLEXIBLE CORD is flexible cord of any length which has one male connector on one end and one or more female connectors on the other, and no built-in overcurrent protection.

NEW SECTION

WAC 51-24-09110 SECTION 9.110. HANDLING is the deliberate transport of material by any means to a point of storage or use.

HAZARDOUS CHEMICAL REACTION is a reaction which generates pressure or byproducts which may cause injury, illness or harm to humans, domestic animals, livestock or wildlife.

HAZARDOUS FIRE AREA is land which is covered with grass, grain brush or forest, whether privately or publicly owned, which is so situated or is of such inaccessible location that a fire originating upon such land would present an abnormally difficult job of suppression or would result in great and unusual damage through fire or resulting erosion. Such areas are designated by the chief on a map maintained in the office of the chief.

HAZARDOUS MATERIALS are those chemicals or substances which are physical hazards or health hazards as defined and classified in Article 80 whether the materials are in usable or waste condition.

HAZARDOUS PRODUCTION MATERIAL (HPM) is a solid, liquid or gas that has a degree-of-hazard rating in health, flammability or reactivity of Class 3 or 4 as ranked by UFC Standard No. 79-3 and which is used directly in research, laboratory or production processes which have as their end product materials which are not hazardous.

HAZARDOUS WATERSHED FIRE AREA is a location within 500 feet of a forest or brush-, grass- or grain-covered land, exclusive of small individual lots or parcels of land located outside of a brush, forest or grass-covered area.

HEALTH HAZARD is a classification of a chemical for which there is statistically significant evidence based on at least one reproducible study conducted in accordance with established scientific principles that acute health effects may occur in exposed persons. The term "health hazard" includes chemicals which are toxic or highly toxic agents, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents which can have an acute effect on the hematopoietic system, and agents that have acute effects on the lungs, skin, eyes or mucous membranes.

HEATING AND COOKING APPLIANCE is an electric, gas or oil-fired appliance not intended for central heating.

HIGH EXPLOSIVE is explosive material, such as dynamite, which can be caused to detonate by means of a No. 8 test blasting cap when unconfined.

HIGHLY TOXIC MATERIAL is a material which produces a lethal dose or lethal concentration which falls within any of the following categories:

(a) A chemical that has a median lethal dose (LD_{50}) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A chemical that has a median lethal dose (LD_{50}) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours, or less if death occurs within 24 hours, with the bare skin of albino rabbits weighing between 2 and 3 kilograms each.

(c) A chemical that has a median lethal concentration (LC_{50}) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume or dust, when administered by continuous inhalation for one hour, or less if death occurs within one hour, to albino rats weighing between 200 and 300 grams each.

Mixtures of these materials with ordinary materials, such as water, may not warrant classification as highly toxic. While this system is basically simple in application, any hazard evaluation which is required for the precise categorization of this type of material shall be performed by experienced, technically competent persons.

HIGHLY TOXIC PESTICIDE is a pesticide which is required by federal regulation to bear a skull and crossbones and be labeled with the word "poison."

HIGHLY VOLATILE LIQUID is a liquid with a boiling point of less than 68°F.

HIGH-PILED COMBUSTIBLE STORAGE is combustible materials in closely packed piles more than 15 feet in height or combustible materials on pallets or in racks more than 12 feet in height. For certain special-hazard commodities such as rubber tires, plastics, some flammable liquids, idle pallets, etc., the critical pile height may be as low as 6 feet.

HIGH-RACK STORAGE SYSTEM is a system located in an area having no occupant load that has storage over 40 feet in height, racks placed such that aisles are not provided as required by Section 81.108, and automated stock handling.

HIGHWAY is a public street or public road.

HORIZONTAL EXIT is an exit from one building into another building on approximately the same level, or through or around a wall constructed as required in the Building Code for a two-hour occupancy separation and which completely divides a floor into two or more separate areas so as to establish an area of refuge affording safety from fire or smoke coming from the area from which escape is made.

HOTEL is any building containing six or more guest rooms intended or designed to be used, or which are used, rented or hired out to be occupied, or which are occupied for sleeping purposes by guests.

HPM FLAMMABLE LIQUID is an HPM liquid that is defined as being either a flammable or combustible liquid.

HPM STORAGE ROOM is a room used for the storage or dispensing of HPM and which is classified as a Group H, Division 2, 3 or 7 Occupancy.

HYPERGOLIC MATERIAL is a material which is capable of igniting spontaneously upon contact with another substance.

NEW SECTION

WAC 51-24-09117 SECTION 9.117. OCCUPANCY is the purpose for which a building or part thereof is used or intended to be used.

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

Group A Occupancies:

Division 1. Any assembly building or portion of a building with a legitimate stage and an occupant load of 1,000 or more.

Division 2. Any building or portion of a building having an assembly room with an occupant load of less than 1,000 and a legitimate stage.

Division 2.1. Any building or portion of a building having an assembly room with an occupant load of 300 or more without a legitimate stage, including such buildings used for educational purposes and not classed as a Group E or Group B, Division 2 Occupancy.

Division 3. Any building or portion of a building having an assembly room with an occupant load of less than 300 without a legitimate stage, including such buildings used for educational purposes and not classed as a Group E or Group B, Division 2 Occupancy.

Division 4. Stadiums, reviewing stands and amusement park structures not included within other Group A Occupancies.

For amusement buildings, see Building Code requirements for Group A Occupancies.

Group B Occupancies:

Division 1. Repair garages where work is limited to exchange of parts and maintenance requiring no open flame, welding or use Class I, II or III-A liquids, motor vehicle fuel-dispensing stations and parking garages not classified as Group B, Division 3 open parking garages or Group M, Division 1 private garages.

Division 2. Drinking and dining establishments having an occupant load of less than 50, wholesale and retail stores, office buildings, printing plants, police and fire stations, factories and workshops using materials not highly flammable or combustible, storage and sales rooms for combustible goods, paint stores without bulk handling. Building or portions of buildings having rooms used for educational purposes beyond the 12th grade with less than 50 occupants in any room.

Division 3. Aircraft hangars where no repair work is done except exchange of parts and maintenance requiring no open flame welding or the use of Class I or II flammable liquids.

Open parking garages.

Helistops.

Division 4. Ice plants, power plants, pumping plants, cold storage, creameries.

Factories and workshops using noncombustible and nonexplosive materials.

Storage and sales rooms containing only noncombustible and nonexplosive materials that are not packaged or crated in or supported by combustible material.

Group E Occupancies:

Division 1. Any building used for educational purposes through the 12th grade by 50 or more persons for more than 12 hours per week or four hours in any one day.

Division 2. Any building used for educational purposes through the 12th grade by less than 50 persons for more than 12 hours per week or four hours in any one day.

Division 3. Any building or portion thereof used for day-care purposes for more than six children.

EXCEPTION: Family child day-care homes shall be considered Group R, Division 3 Occupancies.

Group H Occupancies:

Division 1. Occupancies with quantity of material in the building in excess of the exempt amounts listed in the Building Code (see UBC Table No. 9-A) which present a high explosion hazard, including but not limited to:

(a) Explosives, blasting agents, fireworks and black powder.

EXCEPTION: Storage and the use of pyrotechnic special effect materials in motion picture, television, theatrical and group entertainment production when under permit as required in the Fire Code. The time period for storage shall not exceed 90 days.

(b) Unclassified detonatable organic peroxides.

(c) Class 4 oxidizers.

(d) Class 3 or 4 detonatable unstable (reactive) materials.

Division 2. Occupancies with quantity of material in the building in excess of the exempt amounts listed in the Building Code (see UBC Table No. 9-A) which present a moderate explosion hazard or a hazard from accelerated burning, including but not limited to:

(a) Class I organic peroxides.

(b) Class 3 nondetonatable unstable (reactive) materials.

(c) Pyrophoric gases.

(d) Flammable or oxidizing gases.

(e) Class I, II or III-A flammable or combustible liquids which are used in normally open containers or systems or in closed containers pressurized at more than 15-pounds-per-square-inch gage.

EXCEPTION: Aerosols.

(f) Combustible dusts in suspension or capable of being put into suspension in the atmosphere of the room or area.

EXCEPTIONS: 1. Rooms or areas used for woodworking where no more than three fixed in-place woodworking appliances are utilized may be classified as a Group B, Division 2 Occupancy, provided the appliances are equipped with dust collectors sufficient to remove dust generated by the appliances.

2. Lumberyards and similar retail stores utilizing only power saws may be classified as Group B, Division 2 Occupancies.

The building official may revoke the use of these exceptions for due cause.

(g) Class 3 oxidizers.

Division 3. Occupancies with quantity of material in the building in excess of the exempt amounts listed in the Building Code (see UBC Table No. 9-A) which present a high fire or physical hazard, including but not limited to:

(a) Class II, III or IV organic peroxides.

(b) Class 1 or 2 oxidizers.

(c) Class I, II or III-A flammable liquids or combustible liquids which are utilized or stored in normally closed containers or systems and containers pressurized at 15-pounds-per-square-inch gage or less and aerosols.

(d) Class III-B combustible liquids.

(e) Pyrophoric liquids or solids.

(f) Water reactives.

(g) Flammable solids, including combustible fibers or dusts, except for dusts included in Division 2.

(h) Flammable or oxidizing cryogenic fluids (other than inert).

(i) Class 1 unstable (reactive) gas or Class 2 unstable (reactive) materials.

Division 4. Repair garages not classified as a Group B, Division 1.

Division 5. Aircraft repair hangars and heliports not classified as Group B, Division 3.

Division 6. Semiconductor fabrication facilities and comparable research and development areas when the facilities in which hazardous production materials (HPM) are used and the aggregate quantity of materials are in excess of the exempt amounts listed in the Building Code (see UBC Table No. 9-A or 9-B). Such facilities and areas shall be designed and constructed in accordance with the Building Code. See UBC Section 911.

Division 7. Occupancies having quantities of materials in excess of those listed in Table No. 9-B that are health hazards, including:

(a) Corrosives.
(b) Highly toxic materials.
(c) Irritants.

Group I Occupancies:

Division 1.1. Nurseries for the full-time care of children under the age of six (each accommodating more than five persons). Hospitals, sanitariums, nursing homes with nonambulatory patients and similar buildings (each accommodating more than five persons).

Division 1.2. Health-care centers for ambulatory patients receiving outpatient medical care which may render the patient incapable of unassisted self-preservation. (Each tenant space accommodating more than five persons).

Division 2. Nursing homes for ambulatory patients, homes for children six years of age or over (each accommodating more than five person).

Division 3. Mental hospitals, mental sanitariums, jails, reformatories and buildings where personal liberties of inmates are similarly restrained.

EXCEPTION: Group I Occupancies shall not include buildings used only for private residential purposes or for a family group.

Group M Occupancies:

Division 1. Private garages, sheds and agricultural buildings when not over 1,000 square feet in area.

Division 2. Fences, tanks and towers.

Group R Occupancies:

Division 1. Hotels and apartments. Congregate residences (each accommodating more than 10 persons).

Division 2. Not used.

Division 3. Dwellings, family child day care homes and lodging houses. Congregate residences (each accommodating 10 persons or less).

OIL-BURNING EQUIPMENT is an oil burner of any type together with its tank, piping, wiring, controls and related devices. Oil-burning equipment includes oil burners, oil-fired units and heating and cooking appliances but does not include equipment exempted by Section 61.101.

OIL-FIRED UNIT is a heating appliance equipped with one or more oil burners and the necessary safety controls, electrical equipment and related equipment manufactured for assembly as a complete unit. Oil-fired unit does not include kerosene stoves or oil stoves.

OPEN-AIR GRANDSTANDS and BLEACHERS are seating facilities which are located so that the side toward which the audience faces is unroofed and without an enclosing wall.

OPEN BURNING is the burning of a bonfire, rubbish fire or other fire in an outdoor location where fuel being burned is not contained in an incinerator, outdoor fireplace or barbecue pit.

OPERATING LINE is a group of separated operating buildings of specific arrangement used in the assembly, modification, reconditioning, renovation, maintenance, inspection, surveillance, testing or manufacturing of explosives.

ORGANIC COATING is a liquid mixture of binders, such as alkyd, nitrocellulose, acrylic or oil and flammable and combustible solvents such as hydrocarbon, ester, ketone or alcohol, which when spread in a thin film converts to a durable protective and decorative finish.

ORGANIC PEROXIDE is an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms have been replaced by an organic radical. Organic peroxides may present an explosion hazard (detonation or deflagration) or they may be shock sensitive. They may also decompose into various unstable compounds over an extended period of time.

OSHA is the Occupational Safety and Health Administration.

OWNER includes persons having vested or contingent interest in the property in question and their duly authorized agents or attorneys, purchasers, devisees and fiduciaries.

OXIDIZER is a chemical other than a blasting agent or explosive that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

NEW SECTION

WAC 51-24-10000 ARTICLE 10. FIRE PROTECTION.

DIVISION II
FIRE APPARATUS ACCESS ROADS

NEW SECTION

WAC 51-24-10201 SECTION 10.201. GENERAL. Fire apparatus access roads shall be provided and maintained in accordance with locally adopted street, road, and access standards.

Delete Sections 10.202, 10.203, 10.204, 10.205, and 10.206 entirely.

NEW SECTION

WAC 51-24-10507 REQUIRED INSTALLATIONS OF AUTOMATIC FIRE-EXTINGUISHING SYSTEMS. SECTION 10.507. (a) General. An automatic fire-extinguishing system shall be installed in the occupancies and locations as set forth in this section.

For provisions on special hazards and hazardous materials, see Sections 10.501 and Articles 45, 48, 49 and 80.

(b) All Occupancies except Group R, Division 3 and Group M. Except for Group R, Division 3 and Group M Occupancies, an automatic sprinkler system shall be installed:

1. In every story or basement of all buildings when the floor area exceeds 1,500 square feet and there is not provided at least 20 square feet of opening entirely above the adjoining ground level in each 50 lineal feet or fraction thereof of exterior wall in the story or basement on at least one side of the building. Openings shall have a minimum dimension of not less than 30 inches. Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that firefighting or rescue cannot be accomplished from the exterior.

When openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet from such openings, the story shall be provided with an approved automatic sprinkler system, or openings as specified above shall be provided on at least two sides of an exterior wall of the story.

If any portion of a basement is located more than 75 feet from openings required in this section, the basement shall be provided with an approved automatic sprinkler system.

2. At the top of rubbish and linen chutes and in their terminal rooms. Chutes extending through three or more floors shall have additional sprinkler heads installed within such chutes at alternate floors. Sprinkler heads shall be accessible for servicing.

3. In rooms where nitrate film is stored or handled.

4. In protected combustible fiber storage vaults as defined in this code.

(c) Group A Occupancies. 1. Drinking establishments. An automatic sprinkler system shall be installed in rooms used by the occupants for the consumption of alcoholic beverages and unseparated accessory uses where the total area of such unseparated rooms and assembly uses exceeds 5,000 square feet. For uses to be considered as separated, the separation shall not be less than as required for a one-hour occupancy separation. The area of other uses shall be included unless separated by at least a one-hour occupancy separation.

2. Basements. An automatic sprinkler system shall be installed in basements classified as a Group A Occupancy when the basement is larger than 1,500 square feet in floor area.

3. Exhibition and display rooms. An automatic sprinkler system shall be installed in Group A Occupancies which have more than 12,000 square feet of floor area which can be used for exhibition or display purposes.

4. Stairs. An automatic sprinkler system shall be installed in enclosed usable space below or over a stairway in Group A, Divisions 2, 2.1, 3 and 4 Occupancies.

5. Multitheater Complexes. Every building containing a multitheater complex.

6. Amusement buildings. An automatic sprinkler system shall be installed in all amusement buildings. The main water-flow switch shall be electrically supervised. The sprinkler main cutoff valve shall be supervised. When the amusement building is temporary, the sprinkler water-supply may be of an approved temporary type.

EXCEPTION: An automatic sprinkler system need not be provided when the floor area of a temporary amusement building is less than 1,000 square feet and the exit travel distance from any point is less than 50 feet.

7. Other areas. An automatic sprinkler system shall be installed under the roof and gridiron, in the tie and fly galleries, and in all places behind the proscenium wall of stages; over and within permanent platforms in excess of 500 square feet in area; and in dressing rooms, workshops and storerooms accessory to such stages or permanent platforms.

EXCEPTIONS: 1. Stages or platforms open to the auditorium room on three or more sides.
2. Altars, pulpits or similar platforms and their accessory rooms.
3. Stage gridirons when side-wall sprinklers with 135°F. rated heads with heat-baffle plates are installed around the entire perimeter of the stage except for the proscenium opening at points not more than 30 inches below the gridiron or more than 6 inches below the baffle plate.
4. Under stage or under platform areas less than 4 feet in clear height used exclusively for chair or table storage and lined on the inside with materials approved for one-hour fire-resistive construction.

(d) Group B, Division 2 Occupancies. An automatic sprinkler system shall be installed in retail sales rooms classified as Group B, Division 2 Occupancies where the floor area exceeds 12,000 square feet on any floor or 24,000 square feet on all floors or in Group B, Division 2 retail sales occupancies more than three stories in height. The area of mezzanines shall be included in determining the areas where sprinklers are required.

(e) Group E Occupancies. 1. Basements. An automatic sprinkler system shall be installed in basements classified as a Group E Occupancy when the basement is larger than 1,500 square feet in floor area.

2. Stairs. An automatic sprinkler system shall be installed in enclosed usable space below or over a stairway in Group E Occupancies.

3. Division 1. An approved automatic fire-extinguishing system shall be installed in all newly constructed buildings classified as E-1 Occupancies constructed after July 1, 1992.

NOTE: For the purpose of this section, structural additions exceeding 60% of the appraised value of such building or structure, or alterations and repairs to any portion of a building or structure within a twelve month period that exceeds 100% of the appraised value of such building or structure shall be considered new construction. In the case of structural additions, separation walls shall define separate buildings.

EXCEPTION: Portable school classrooms, provided:
A. Aggregate area of clusters of portable school classrooms does not exceed 5,000 square feet; and
B. Clusters of portable school classrooms separated as required in Chapter 5 of the Building Code.

When not required by other provisions of this chapter, a fire-extinguishing system installed in accordance with UBC Standard No. 38-1 may be used for area and height increases and substitution for one-hour construction as allowed by the Building Code.

(f) Group H Occupancies. 1. Divisions 1, 2, 3 and 7. An automatic fire-extinguishing system shall be installed in Group H, Divisions 1, 2, 3 and 7 Occupancies.

2. Division 4. An automatic fire-extinguishing system shall be installed in Group H, Division 4 Occupancies having a floor area of more than 3,000 square feet.

3. Division 6. An automatic fire-extinguishing system shall be installed throughout buildings containing Group H, Division 6 Occupancies. The design of the sprinkler system shall not be less than that required by the Building Code for the occupancy hazard classifications as follows:

LOCATION	OCCUPANCY HAZARD CLASSIFICATION
Fabrication areas	Ordinary Hazard Group 3
Service corridors	Ordinary Hazard Group 3
Storage rooms without dispensing	Ordinary Hazard Group 3
Storage rooms with dispensing	Extra Hazard Group 2
Exit corridors	Ordinary Hazard Group 3[1]

[1] When the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers that need to be calculated is 13.

(g) Group I Occupancies. An automatic sprinkler system shall be installed in Group I Occupancies.

EXCEPTION: In jails, prisons and reformatories, the piping system may be dry, provided a manually operated valve is installed at a continuously monitored location. Opening of the valve will cause the piping system to be charged. Sprinkler heads in such systems shall be equipped with fusible elements or the system shall be designed as required for deluge systems by the Building Code. See UBC Standard No. 38-1.

(h) Group R, Division 1 Occupancies. An automatic sprinkler system shall be installed throughout apartment houses three or more stories in height or containing 16 or more dwelling units, in congregate residences three or more stories in height and having an occupant load of 50 or more, and in hotels three or more stories in height or containing 20 or more guest rooms.

Residential or quick-response standard sprinkler heads shall be used in the dwelling units and guest room portions of the building.

NEW SECTION

WAC 51-24-25000 ARTICLE 25 PLACES OF ASSEMBLY.

NEW SECTION

WAC 51-24-25107 AISLES. SECTION 25.107. (a) General. Aisles leading to required exits shall be provided from all portions of buildings. Aisles located within an accessible route of travel shall also comply with the Building Code for accessibility.

(b) Width in Occupancies without Fixed Seats. The width of aisles in occupancies without fixed seats shall comply with this section. Aisle widths shall be provided in accordance with the following:

1. In areas serving employees only, the minimum aisle width may be 24 inches but not less than the width required by the number of employees served.

2. In public areas of Group B, Division 2 Occupancies, and in assembly occupancies without fixed seats, the minimum clear aisle width shall be 36 inches where tables, counters, furnishings, merchandise or other similar obstructions are placed on one side of the aisle only and 44 inches when such obstructions are placed on both sides of the aisle.

(c) Width in Assembly Occupancies with Fixed Seats. Aisles in assembly occupancies with fixed seats shall comply with this section.

The clear width of aisles shall be based on the number of occupants within the portion of the seating areas served by the aisle.

The clear width of an aisle in inches shall not be less than the occupant load served by the aisle multiplied by 0.3 for aisles with slopes greater than 1 vertical to 8 horizontal and not less than 0.2 for aisles with slopes of 1 vertical to 8 horizontal or less. In addition, when the rise of steps in aisles exceeds 7 inches, the aisle clear width shall be increased by 1 1/4 inches for each 100 occupants or fraction thereof served for each 1/4 inch of riser height above 7 inches.

Where exiting is possible in two directions, the width of such aisles shall be uniform throughout their length.

When aisles converge to form a single path of exit travel, the aisle width shall not be less than the combined required width of the converging aisle.

In assembly rooms with fixed seats arranged in rows, the clear width of aisles shall not be less than set forth above and not less than the following:

48 inches for stairs having seating on both sides.

36 inches for stairs having seating on one side.

23 inches between a stair handrail and seating when the aisles are subdivided by the handrail.

42 inches for level or ramped aisles having seating on both sides.

36 inches for level or ramped aisles having seating on one side.

23 inches between a stair handrail and seating when an aisle does not serve more than five rows on one side.

(d) Aisle Termination. Aisles shall terminate at a cross aisle, foyer, doorway or vomitory. Aisles shall not have a dead end greater than 20 feet in length.

EXCEPTION: A longer dead-end aisle is permitted when seats served by the dead-end aisle are not more than 24 seats from another aisle measured along a row of seats having a minimum clear width of 12 inches plus 0.6 inch for each additional seat above seven in a row.

Each end of a cross aisle shall terminate at an aisle, foyer, doorway or vomitory.

(e) Ramp Slope. The slope of ramped aisles shall not be more than 1 vertical in 8 horizontal. Ramped aisles shall have a slip-resistant surface.

EXCEPTION: When provided with fixed seating, theaters may have a slope not steeper than 1 vertical to 5 horizontal.

(f) Aisle Steps. 1. When prohibited. Steps shall not be used in aisles having a slope of 1 vertical to 8 horizontal or less.

2. When required. Aisles with a slope steeper than 1 vertical to 8 horizontal shall consist of a series of risers and treads extending across the entire width of the aisle, except as provided in subsection (e).

The height of risers shall not be more than 7 inches and not less than 4 inches and the tread run shall not be less than 11 inches. The riser height shall be uniform within each flight and the tread run shall be uniform throughout the aisle. Variations in run or height between adjacent treads or risers shall not exceed 3/16 inch. A contrasting marking stripe or other approved marking shall be provided on each tread at the nosing or leading edge such that the location of each tread is readily apparent when viewed in descent. Such stripe shall be a minimum of 1 inch wide and a maximum of 2 inches wide.

EXCEPTION: When the slope of aisle steps and the adjoining seating area is the same, the riser heights may be increased to a maximum of 9 inches and may be nonuniform but only to the

extent necessitated by changes in the slope of the adjoining seating area to maintain adequate sightlines. Variations may exceed 3/16 inch between adjacent risers provided the exact location or such variations is identified with a marking stripe on each tread at the nosing or leading edge adjacent to the nonuniform riser. The marking stripe shall be distinctively different from the contrasting marking stripe.

(g) Handrails. Handrails shall comply with the height, size and shape dimensions set forth in the Building Code [See UBC Section 3306(i)] and shall have rounded terminations or bends. Ramped aisles having a slope steeper than 1 vertical to 15 horizontal and aisle stairs (two or more adjacent steps) shall have handrails located either at the side or within the aisle width. Handrails may project into the required aisle width a distance of 3 1/2 inches.

EXCEPTIONS: 1. Handrails may be omitted on ramped aisles having a slope not greater than 1 vertical in 8 horizontal when fixed seating is on both sides of the aisle.
2. Handrails may be omitted when a guardrail is at the side of an aisle which conforms to the size and shape requirements for handrails.

Handrails located within the aisle width shall be discontinuous with gaps or breaks at intervals not to exceed five rows. These gaps or breaks shall have a clear width of not less than 22 inches and not more than 36 inches measured horizontally. Such handrails shall have an additional intermediate handrail located 12 inches below the main handrail.

NEW SECTION

WAC 51-24-45000 ARTICLE 45. APPLICATION OF FLAMMABLE FINISHES.

NEW SECTION

WAC 51-24-45211 DRYING APPARATUS. SECTION 45.211. (a) General. Drying apparatus shall be in accordance with this section and Article 62.

(b) Spray Booths and Spraying Rooms. 1. General. Spray booths and spraying rooms shall not be alternately used for the purpose of drying by arrangements which could cause a material increase in the surface temperature of the spray booth or spraying room unless such spray booths or spraying rooms are used for automobile refinishing in accordance with Section 45.211(b) 2.

2. Automobile refinishing. A. General. Spray booths and spraying rooms which are used for automobile refinishing with drying conducted therein using drying apparatus shall be in accordance with this subsection.

B. Drying apparatus. Drying apparatus used in spraying rooms shall be of the portable infrared type.

Drying apparatus used in spray booths shall be of the portable infrared type, or if other types of drying apparatus are used, the spray booth, including drying apparatus, shall be listed and approved for use with flammable vapors and combustible residues and shall be provided with explosion control.

C. Spraying procedure. The procedure shall be restricted to low-volume, occasional spray application.

D. Housekeeping. The interior of the spray booth or spraying room shall be kept free of overspray deposits.

E. Interlocks. The spraying apparatus, drying apparatus and ventilating system for the spray booth or spraying room shall be equipped with suitable interlocks arranged to:

(i) Prevent operation of spraying apparatus while drying operations are in progress,

(ii) Purge spray vapors from the spray booth or spraying room for a period of not less than three minutes before drying apparatus can be operated.

(iii) Have the ventilating system maintain a safe atmosphere within the spray booth or spraying room during the drying process and automatically shut off drying apparatus in the event of a failure of the ventilating system, and

(iv) Automatically shut off the drying apparatus if the air temperature exceeds 125°F. when other than portable infrared drying apparatus is used.

F. Portable infrared apparatus. When portable infrared drying apparatus is used, electrical wiring and portable infrared drying equipment shall comply with this article and the Electrical Code. Electrical equipment located within 18 inches of floor level shall be approved for Class I, Division 2 hazardous locations. Metallic parts of drying apparatus shall be properly electrically bonded and grounded.

During spraying operations, portable drying apparatus and electrical connections and wiring thereto shall not be located within spray booths, spraying rooms or other areas where spray residue could be deposited thereon.

(c) Spraying areas. Drying or baking units using a heating system having open flames or which could produce sparks shall not be installed in a spraying area.

When such units are installed adjacent to a spraying area, they shall be equipped with an interlocked ventilating system arranged to:

1. Thoroughly ventilate the drying space before the heating system can be started,

2. Maintain a safe atmosphere at any source of ignition, and

3. Automatically shut down the heating system in the event of a failure of the ventilating system.

NEW SECTION

WAC 51-24-79000 ARTICLE 79. FLAMMABLE AND COMBUSTIBLE LIQUIDS.

NEW SECTION

WAC 51-24-79601 GENERAL. SECTION 79.601. (a) Location. Flammable and combustible liquid storage tanks located underground, outside of or under buildings, shall be in accordance with this section. Tanks shall be located with respect to existing foundations and supports such that the loads carried by the latter cannot be transmitted to the tank. The distance from any part of a tank storing liquids to the nearest wall of a basement, pit, cellar or property line shall not be less than 3 feet. A minimum distance of 1 foot, shell to shell, shall be maintained between underground tanks.

(b) Depth and Cover. Excavation for underground storage tanks shall be made with due care to avoid undermining of foundations of existing structures. Underground tanks shall be set on firm foundations and surrounded with at least 6 inches of noncorrosive inert material such as clean sand or gravel well-tamped in place or in

accordance with the manufacturer's installation instructions. Tanks shall be covered with a minimum of 2 feet of earth or shall be covered by not less than 1 foot of earth, on top of which shall be placed a slab of reinforced concrete not less than 4 inches thick. When underground tanks are or are likely to be subjected to traffic, they shall be protected against damage from vehicles passing over them by at least 3 feet of earth cover, or 18 inches of well-tamped earth plus 6 inches of reinforced concrete, or 8 inches of asphaltic concrete. When asphaltic or reinforced concrete paving is used as part of the protection, it shall extend at least 1 foot horizontally beyond the outline of the tank in all directions.

For tanks built in accordance with Section 79.106, the burial depth and the height of the vent line shall be such that the static head imposed at the bottom of the tank will not exceed 10 psig if the fill or vent pipe is filled with liquid.

If the depth of cover exceeds 7 feet or the manufacturer's specifications, reinforcements shall be provided in accordance with the tank manufacturer's recommendations.

Nonmetallic underground tanks shall be installed in accordance with manufacturer's instructions. The minimum depth of cover shall be as specified in this subsection.

(c) Locations Subject to Flooding. Where a tank could become buoyant due to a rise in the level of the water table or due to location in an area that is subject to flooding, the tank shall be anchored in place. See Appendix II-B or manufacturer's installation instructions.

(d) Leaking Tanks. Leaking tanks shall be either promptly emptied and removed from the ground or repaired in accordance with WAC 173-360-325.

(e) Used Tanks. Reinstallation of used tanks is allowed when such tanks comply with the requirements of Sections 79.106 and 79.603. See Section 2.304(b).

(f) 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.

Tank opening, cleaning, preparation, inspection, lining, closing and testing shall be in accordance with UFC Standard No. 79-6.

For permits to alter a tank, see Section 4.108.

Interior-lined underground tanks shall be protected from corrosion in accordance with Section 79.603.

NEW SECTION

WAC 51-24-79603 CORROSION PROTECTION. SECTION 79.603. Underground tanks and piping shall be properly designed, installed and maintained, and protected from corrosion by either of the following methods:

(a) Through the use of cathodic protection systems in accordance with recognized standards of design. See Section 2.304(b), WAC 173-360-320, or

(b) Through the use of approved corrosion-resistant materials of construction such as special alloys; nonmetallic, reinforced plastic coatings; composites; or equivalent systems.

If conditions, based on adequate proof, warrant the deletion of the corrosion-protection requirements, the chief may waive the corrosion-protection requirements.

New underground steel tanks and piping shall be tested by the structure-to-soil-potential method after the system is in operation. The tank manufacturer shall provide a structure lead and a test station. The criteria for adequate corrosion protection shall be in

accordance with recognized standards. Testing shall be done at installation and not less than once every five years thereafter by qualified persons approved by the chief.

EXCEPTION: Approved and listed composite fiberglass-reinforced plastic tanks.

NEW SECTION

WAC 51-24-80000 ARTICLE 80. HAZARDOUS MATERIALS.

NEW SECTION

WAC 51-24-80101 SCOPE. SECTION 80.101. (a) General. Prevention, control and mitigation of physical hazards and health hazards related to storage, dispensing, use and handling of hazardous materials and information needed by emergency response personnel shall be in accordance with this article.

EXCEPTIONS: 1. Off-site hazardous materials transportation in accordance DOT requirements.
2. The quantities of alcoholic beverages, medicines, foodstuffs and cosmetics, containing not more than 50 percent by volume of water-miscible liquids and with the remainder of the solutions not being flammable, in retail sales occupancies are unlimited when packaged in individual containers not exceeding 4 liters.

(b) Material Classification. Hazardous materials are those chemicals or substances defined as such in Article 9. See Appendix VI-A for the classification of hazard categories and hazard evaluations.

EXCEPTION: For the purpose of this article, carcinogens, irritants and sensitizers do not include commonly used building materials and consumer products which are not otherwise regulated by this code.

The classification system referenced in Division II shall apply to all hazardous materials, including those materials regulated elsewhere in this code.

(c) Application. Division I shall apply to all hazardous materials, including those materials regulated elsewhere in this code, except that when specific requirements are provided in other articles, those specific requirements shall apply.

When a material has multiple hazards, all hazards shall be addressed.

The provisions of this article are waived when such provisions are preempted by other codes, statutes or ordinances. The details of any action granting any such waiver shall be recorded and entered in the files of the code enforcement agency.

(d) Existing Buildings. For existing buildings, see Section 1.103(b).

(e) Retail Sales and Display. For retail display of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in Group B, Division 2 retail sales occupancies, see Section 80.112.

(f) Notwithstanding any other language to the contrary, Article 80 is adopted in the State of Washington for the purpose to provide requirements for the prevention, control and mitigation of physical hazards and health hazards only.

NEW SECTION

WAC 51-24-80103 PERMITS. SECTION 80.103. (a) General. Where required by the chief:

1. Permits are required to store, dispense, use or handle hazardous material in excess of quantities specified in Section 4.108.

2. A permit is required when a material is classified as having more than one hazard category if the quantity limits are exceeded in any category.

3. Permits are required to install, repair, abandon, remove, place temporarily out of service, close or substantially modify a storage facility or other area regulated by this article. See also Sections 80.110 and 80.111.

EXCEPTIONS: 1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

Permittee shall apply for approval to close storage, use or handling facilities at least 30 days prior to the termination of the storage, use or handling of hazardous materials. Such application shall include any change or alteration of the facility closure plan filed pursuant to Section 80.110. This 30-day period may be waived by the chief if there are special circumstances requiring such waiver.

(b) Hazardous Materials Management Plan. When required by the chief, each application for a permit pursuant to this article shall include a Hazardous Materials Management Plan (HMMP) in accordance with Appendix II-E.

EXCEPTION: Compliance with requirements of 40 CFR "Hazardous Chemical Reporting and Community Right-To-Know Regulations" under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) will satisfy the requirement of this subsection.

(c) Hazardous Materials Inventory Statement. When required by the chief, each application for a permit pursuant to this article shall include a Hazardous Materials Inventory Statement (HMIS) in accordance with Appendix II-E.

EXCEPTION: Compliance with requirements of 40 CFR "Hazardous Chemical Reporting and Community Right-To-Know Regulations" under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) will satisfy the requirement of this subsection.

NEW SECTION

WAC 51-24-80108 CONSTRUCTION REQUIREMENTS. SECTION 80.108. (a) General. Buildings or portions thereof, in which hazardous materials are stored, handled or used shall be constructed in accordance with the Building Code, as specified in U.B.C. Chapter 9.

(b) Control Areas. 1. Boundaries. Boundaries of a control area shall be formed by one or more of the following:

A. An occupancy separation with a minimum one-hour fire-resistive rating, or

B. The exterior wall, roof or foundation of the building.

2. Number. The number of control areas in buildings or portions of buildings used for retail sales shall not exceed two. The number of control areas in buildings used for other than retail sales shall not exceed four.

NEW SECTION

WAC 51-24-80109 PERSONNEL TRAINING AND WRITTEN PROCEDURES. SECTION 80.109. 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 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.

EXCEPTION: Compliance with requirements of 40 CFR "Hazardous Chemical Reporting and Community Right-To-Know Regulations" under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) will satisfy the requirements of this section.

NEW SECTION

WAC 51-24-80110 SECTION 80.110.

Facility Closure or Placement Out of Service Notification. Section 80.110. The permit holder or applicant shall notify the fire department of its intent to terminate storage, dispensing, handling or use of hazardous materials at least 30 days prior to facility closure or placing facility out of service.

NEW SECTION

WAC 51-24-80111 SECTION 80.111.

Delete Section 80.111 Out-of-Service Facilities entirely.

NEW SECTION

WAC 51-24-80113 SECTION 80.113. Notwithstanding Section 1.103(b) conditions in existence at the time of the adoption of this article may continue if such condition was legal at the time of the adoption of this code, provided such condition is not dangerous to life or does not present a distinct and substantial hazard to property.

NEW SECTION

WAC 51-24-80114 SECTION 80.114.

Section 80.114. The intent of this article is to promote compliance with nationally recognized standards, including those identified in

Appendix V-A and any guidance or directives from nationally recognized standards development organizations. Compliance with such standards shall be considered by the chief in judging compliance with the intent of this article.

NEW SECTION

WAC 51-24-80120 TABLE NO. 80.112-A

TABLE NO. 80.112-A
DENSITY FACTORS FOR EXEMPT AMOUNTS IN RETAIL SALES

HAZARD CATEGORIES[1]	CLASS	DENSITY FACTOR (p)
Physical Hazards:		
Oxidizers; unstable (reactive) materials; water-reactive materials	Class 4	N.P.
	Class 3	0.075
	Class 2	0.006
	Class 1	0.003
Health Hazards:		
Highly toxic solids and liquids; corrosives; other health hazard solids, liquids and gases	All	0.0013

NP = Not permitted
1 Hazard categories are as specified in Division II. Density factors shall not apply to categories other than those listed.

NEW SECTION

WAC 51-24-80202 HAZARD CATEGORIES. SECTION 80.202. (a) Physical Hazards. The materials listed in this subsection are classified as physical hazards. A material with a primary classification as a physical hazard can also present a health hazard.

1. Explosives and blasting agents, regulated elsewhere in this code.
2. Compressed gases, regulated in this article and elsewhere in this code.
3. Flammable and combustible liquids regulated elsewhere in this code.
4. Flammable solids.
5. Organic peroxides.
6. Oxidizers.
7. Pyrophoric materials.
8. Unstable (reactive) materials.
9. Water-reactive solids and liquids.

10. Cryogenic fluids, regulated under this article and elsewhere in this code.

(b) Health Hazards. The materials listed in this subsection are classified as health hazards. A material with a primary classification as a health hazard can also present a physical hazard.

1. Highly toxic or toxic materials, including highly toxic or toxic compressed gases.

2. Radioactive materials.

3. Corrosives.

NEW SECTION

WAC 51-24-80301 GENERAL. SECTION 80.301. (a) Applicability. 1. General. Application of this division shall be in accordance with this subsection.

2. Quantities exceeding exempt amounts. Storage of hazardous materials, in containers, cylinders and tanks, in excess of the exempt amounts specified in Sections 80.302 through 80.314 shall be in accordance with this division.

3. Quantities not exceeding exempt amounts. A. General. Storage of hazardous materials, in containers, cylinders and tanks, not exceeding the exempt amounts specified in Sections 80.302 through 80.314 is not required to be in accordance with this division except as provided in this subsection.

B. Storage conditions. Storage conditions for liquid and solid oxidizers, organic peroxides, and unstable (reactive) and water-reactive materials shall be as set forth in Sections 80.306(a)2, 80.307(a)2, 80.309(a)2 and 80.310(a)2.

C. Contamination prevention. Contamination prevention for organic peroxides shall be as set forth in Section 80.307(a)2.

D. Separation. Separation of incompatible hazardous materials shall be in accordance with Section 80.301(n).

4. Materials regulated by other articles. Hazardous materials regulated by other articles are not required to be in accordance with this division unless specifically indicated in this division.

(b) Containers and Tanks. 1. Design and construction. Containers and tanks shall be designed and constructed in accordance with nationally recognized standards. See Section 2.304(b).

2. Tanks out-of-service for 90 days. Stationary tanks not used for a period of 90 days shall be properly safeguarded or removed in a manner approved by the chief. Such tanks shall have the fill line, gauge opening and pump connection secured against tampering. Vent lines shall be properly maintained.

Tanks which are to be placed back in service shall be tested in a manner approved by the chief.

3. Defective containers and tanks. Defective containers and tanks shall be removed from service, repaired, or disposed of in accordance with nationally recognized standards of good practice such as the American Petroleum Institute (API) or American Society of Mechanical Engineers (ASME). See Section 2.304(b).

4. Empty containers and tanks. Empty containers and tanks previously used for the storage of hazardous materials shall be free from residual material and vapor as defined by DOT, the Resource Conservation and Recovery Act (RCRA) or other regulating authority or maintained as specified for the storage of the hazardous material.

5. Underground tanks. Underground tanks not otherwise excepted by this section used for the storage of hazardous materials shall be located and protected in accordance with Sections 79.601 and 79.603 of this code. Secondary containment shall be provided for all new installations of underground tanks.

EXCEPTION: Underground storage tanks regulated by 40 CFR 280 or state law.

6. Aboveground tanks. Aboveground stationary tanks used for the storage of hazardous materials shall be located and protected in accordance with the provisions for exterior storage of the particular material involved and shall be marked as required by Section 80.301(d).

(c) Piping, Valves and Fittings. Piping, valves, fittings and related components appurtenant to or intended for the storage of hazardous materials shall be designed and fabricated from materials compatible with the material to be contained and shall be of adequate strength and durability to withstand the pressure, structural and seismic stress, and exposure to which they could be subjected.

(d) Signage. In addition to the hazard identification signs required by Section 80.107, stationary aboveground tanks shall be placarded with hazard identification signs as specified in U.F.C. Standard No. 79-3 for the specific material contained.

Signs prohibiting smoking shall be provided in storage areas and within 25 feet of outdoor storage areas.

Signs shall not be obscured or removed.

Signs shall be in English as a primary language or in symbols allowed by this code.

Signs shall be durable. The size, color and lettering shall be in accordance with nationally recognized standards.

(e) Security. The storage of hazardous materials shall be protected against tampering or trespassers by fencing or other control measures.

(f) Ignition Sources. Smoking, use of open flames or high-temperature devices in a manner which creates a hazardous condition shall not be permitted.

EXCEPTION: Energy-consuming equipment listed for use with the hazardous material stored.

(g) Protection from Light. Materials which are sensitive to light shall be stored in containers designed to protect them from such exposure.

(h) Shock Padding. Materials which are shock sensitive shall be padded, suspended or otherwise protected against accidental dislodgement and dislodgement during seismic activity. For seismic requirements and the seismic zone in which the material is located, see the Building Code.

(i) Shelf Storage. Shelving shall be of substantial construction, adequately braced and anchored. For seismic requirements and the seismic zone in which the material is located, see the Building Code.

Shelves shall be provided with a lip or guard when used for the storage of individual containers.

EXCEPTION: Storage in hazardous materials storage cabinets or laboratory furniture specifically designed for such use.
Shelf storage of hazardous materials shall be maintained in an orderly manner.

(j) Maximum Quantity on Site. The storage of hazardous materials shall be in accordance with the local zoning ordinance.

(k) Storage Plan. A storage plan shall be provided for all storage facilities. The plan shall indicate the intended storage arrangement, including the location and dimensions of aisles. Compliance with requirements of 40 CFR "Hazardous Chemical Reporting and Community Right-To-Know Regulations" under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) will satisfy the requirements of this subsection.

(l) Spill Control, Drainage Control and Secondary Containment. 1. General. Unless exempted or otherwise provided for in Sections 80.302 through 80.314, rooms, buildings or areas used for the storage of solid and liquid hazardous materials shall be provided with a means to control spillage and to contain or drain off spillage and fire-

protection water discharged in the storage area in accordance with this subsection.

2. Spill control. Floors shall be recessed a minimum of 4 inches or shall be provided with liquid-tight raised sill to a minimum height of 4 inches so as to prevent the flow of liquid to adjoining areas. When liquid-tight sills are provided, they are not required at door openings which are provided with an open-grate trench which connects to the room drainage system.

3. Drainage control. A. General. The room, building or area shall be provided with a drainage system to direct the flow of liquids to an approved location, or, when required in Sections 80.302 through 80.314, the room, building or area shall be designed to provide secondary containment for the hazardous materials and fire-protection water.

B. Slope. A slope to drain not less than 1 percent shall be provided.

C. Capacity for fire-extinguishing water. Drains from the area shall be sized to carry the automatic fire-extinguishing system design flow rate over the system design area.

D. Materials. Materials of construction for the drainage system shall be compatible with the stored materials.

E. Incompatible materials. Incompatible materials shall be separated from each other in drain systems. They may be combined when they have been rendered acceptable by an approved means for discharge into the public sewer.

F. Termination. Flow from the drainage system shall be directed to an approved location.

Drainage of spillage and fire-protection water may be directed to a neutralizer or treatment system which complies with the following:

(i) The system shall be designed to handle the maximum worst case spill from the single largest container plus the volume of fire-protection water from the system over the minimum design area for a period of 20 minutes, and

(ii) The system shall be designed to overflow from the neutralizer or treatment system so that liquid leakage and fire-protection water is directed to a safe location away from the building, valves, means of egress, adjoining property and fire department access roadways.

4. Secondary containment. When required in Sections 80.302 through 80.314, drains shall be directed to a containment system or other location designed as secondary containment for the hazardous materials liquids and fire-protection water, or the building, room or area shall be designed to provide secondary containment of hazardous material liquids and fire-protection water through the use of recessed floors or liquid-tight raised sills.

EXCEPTION: The provisions of this subsection may be waived when the chief has determined that such enforcement is preempted by other codes, statutes or ordinances. See Section 80.101.

Secondary containment shall be designed to retain the spill from the largest single container plus the design flow rate of the automatic fire-extinguishing system for the area of the room or area in which the storage is located or the system design area, whichever is smaller. The containment capacity shall be capable of containing the flow for a period of 20 minutes.

Overflow from the secondary containment system shall be provided to direct liquid leakage and fire-protection water to a safe location away from the building, valves, means of egress, fire access roadway, adjoining property or storm drains.

If the storage area is open to rainfall, the secondary containment shall be designed to accommodate the volume of a 24-hour rainfall as determined by a 25-year storm. When curbs are used, provisions shall be made for draining accumulations of groundwater or rainwater.

When secondary containment is required, a monitoring method capable of detecting hazardous material leakage from the primary containment into the secondary containment shall be provided. Visual

inspection of the primary containment is the preferred method; however, other means of monitoring is approved by the chief. Where secondary containment is subject to the intrusion of water, a monitoring method for such water shall be provided. When monitoring devices are provided, they shall be connected to distinct visual or audible alarms.

(m) Ventilation. Unless exempted or otherwise provided for in Sections 80.302 through 80.314, indoor storage areas and storage buildings shall be provided with mechanical exhaust ventilation. Threshold Limit Values (TLV) as established by the American Conference of Governmental and Industrial Hygienists (ACGIH), OSHA or Washington Industrial Safety and Health Act - Chapter 296-62 WAC will be utilized for establishing minimum standards where ventilation is required.

EXCEPTION: Where natural ventilation can be shown to be acceptable for the materials as stored.

Exhaust ventilation systems shall comply with the following:

1. Installation shall be in accordance with the provisions of the Mechanical Code.
2. Mechanical ventilation shall be at a rate of not less than 1 cubic foot per minute per square foot of floor area over the storage area.
3. Systems shall operate continuously. Alternate designs may be approved by the chief.
4. A manual shutoff control shall be provided outside the room adjacent to the access door into the room or in a location approved by the chief. The switch shall be of the break-glass type and shall be labeled "Ventilation System Emergency Shutoff."
5. Exhaust ventilation shall be arranged to consider the density of the potential fumes or vapors released. For fumes or vapors that are heavier than air, exhaust shall be taken from a point within 12 inches of the floor.
6. The location of both the exhaust and inlet air openings shall be arranged to provide air movement across all portions of the floor or room to prevent the accumulation of vapors.
7. Exhaust ventilation shall not be recirculated within the room or building if the materials stored are capable of emitting hazardous vapors.

(n) Separation of Incompatible Hazardous Materials. Storage of incompatible hazardous materials shall be separated.

EXCEPTION: Containers of solids or liquids having a capacity of less than 5 pounds or 1/2 gallon when stored in quantities not exceeding exempt amounts.

Separation shall be accomplished by:

1. Segregating incompatible hazardous materials storage by a distance of not less than 20 feet,
2. Isolating incompatible hazardous materials storage by a noncombustible partition extending not less than 18 inches above and to the sides of the stored material, or
3. Storing in hazardous materials storage cabinets or gas cabinets. Materials which are incompatible shall not be stored within the same cabinet.

(o) Hazardous Materials Storage Cabinets. 1. General. When storage cabinets are used to comply with this article, such cabinets shall be in accordance with this subsection.

EXCEPTION: Compressed gases shall be stored in cabinets designed in accordance with Section 80.303.

Cabinets shall be conspicuously labeled in red letters on contrasting background "Hazardous--Keep Fire Away."

2. Construction. The interior of cabinets shall be treated, coated or constructed of materials that are nonreactive with the hazardous material stored. Such treatment, coating or construction shall include the entire interior of the cabinet. Cabinets shall either be listed as suitable for the intended storage or constructed in accordance with the following:

A. Cabinets shall be of steel having a thickness of not less than 0.044 inch (18 gage). The cabinet, including the door, shall be double walled with 1 1/2-inch airspace between the walls. Joints shall be riveted or welded and shall be tight-fitting. Doors shall be well fitted, self-closing and equipped with a self-latching device.

B. The bottoms of cabinets utilized for the storage of liquids shall be liquid-tight to a minimum height of 2 inches.

For requirements regarding electrical equipment and devices within cabinets used for the storage of hazardous gases or liquids, see the Electrical Code.

(p) Fire-extinguishing Systems. Unless exempted or otherwise provided for in Sections 80.302 through 80.314, indoor storage areas and storage buildings shall be protected by an automatic sprinkler system. The design of the sprinkler system shall not be less than that required by the Building Code for Ordinary Hazard Group 3 with a minimum design area of 3,000 square feet. See UBC Standard No. 38-1. Where the materials or storage arrangement require a higher level of sprinkler system protection in accordance with nationally recognized standards, the higher level of sprinkler system protection shall be provided.

EXCEPTION: Approved alternate automatic fire-extinguishing systems are allowed.

(q) Explosion Control. Unless exempted or otherwise provided for in Sections 80.302 through 80.314, indoor storage areas and storage buildings shall be provided with explosion control in accordance with the Building Code.

(r) Electrical Wiring and Equipment. Electrical wiring and equipment shall be installed in accordance with the Washington State Electrical Code Chapter 296-46 WAC.

(s) Standby Power. When mechanical ventilation, treatment systems, temperature control, alarm, detection or other electrically operated systems are required, such systems shall be connected to a secondary source of power to automatically supply electrical power in the event of loss of power from the primary source. See the Washington State Electrical Code Chapter 296-46 WAC.

(t) Limit Controls. 1. General. Unless exempted or otherwise provided for in Sections 80.302 through 80.314, limit controls shall be provided in accordance with this subsection.

2. Liquid-level limit control. Atmospheric tanks with a capacity exceeding 500 gallons used for the storage of hazardous materials liquids shall be equipped with a liquid-level limit control to prevent overfilling of the tank.

EXCEPTION: Tanks monitored by a system which will limit net contents by weight.

3. Temperature control. Materials which must be stored at temperatures other than normal ambient temperatures to prevent a hazardous reaction shall be stored in an area provided with a means to maintain the temperature within a safe range. Redundant temperature control equipment which will operate upon failure of the primary temperature control system shall be provided. Alternate means which prevent a hazardous reaction are allowed.

4. Pressure control. Stationary tanks used for the storage of hazardous materials liquids which can generate pressures exceeding the tank design limits due to exposure fires or internal reaction shall have some form of construction or device that will relieve excessive internal pressure. Such relief devices shall vent to an approved

location or to an exhaust scrubber or treatment system when specified in Sections 80.302 through 80.314.

(u) Emergency Alarm. An approved emergency alarm system shall be provided in buildings, rooms or areas used for the storage of hazardous materials. Emergency alarm signal devices shall be installed outside of each interior exit door of storage buildings, rooms or areas. Activation of the emergency alarm-initiating device shall sound a local alarm to alert occupants of an emergency situation involving hazardous materials.

(v) Supervision. When emergency alarm, detection or automatic fire-extinguishing systems are required in Sections 80.302 through 80.314, such systems shall be supervised by an approved central, proprietary or remote station service or shall initiate an audible and visual signal at a constantly attended on-site location.

(w) Protection from Vehicles. Guard posts or other means shall be provided to protect exterior storage tanks from vehicular damage. When guard posts are installed, the posts shall be:

1. Constructed of steel not less than 4 inches in diameter and concrete filled,
2. Spaced not more than 4 feet between posts on center,
3. Set not less than 3 feet deep in a concrete footing of not less than a 15-inch diameter,
4. Set with the top of the posts not less than 3 feet above ground, and
5. Located not less than 5 feet from the tank.

(x) Clearance from Combustibles. The area surrounding an exterior storage area or tank shall be kept clear of combustible materials and vegetation for a minimum distance of 30 feet.

(y) Noncombustible Floor. Except for surfacing, floors of storage areas shall be of noncombustible construction.

(z) Professional Engineer. The chief is authorized to require design submittals to bear the stamp of a professional engineer.

(aa) Weather Protection. When overhead noncombustible construction is provided for sheltering exterior hazardous material storage areas, such storage shall not be considered indoor storage when all of the following conditions are met:

1. Supports shall be of noncombustible construction.
2. Supports and walls shall not obstruct more than 25 percent of the perimeter of the storage area.
3. The distance to buildings, property lines, streets, alleys, public ways or exits to a public way shall not be less than the distance required for an exterior hazardous material storage area without weather protection.

NEW SECTION

WAC 51-24-80303 TOXIC AND HIGHLY TOXIC COMPRESSED GASES. SECTION 80.303. (a) Indoor Storage. 1. General. Indoor storage of toxic and highly toxic compressed gases shall be in accordance with this subsection, and Sections 80.301 and 80.303(c).

2. Exempt amounts. When the amount of highly toxic or toxic compressed gases stored in one control area exceeds that specified in Table No. 80.303-A, such storage shall be within a room or building conforming with the Building Code requirements for a Group H, Division 7 Occupancy.

3. Fire-extinguishing system. In addition to Section 80.301(p), the following requirements shall apply:

A. Gas cabinets or exhausted enclosures for the storage of cylinders shall be internally sprinklered.

B. Alternate fire-extinguishing systems shall not be used for either storage areas, gas cabinets or exhausted enclosures.

EXCEPTION: Where water is incompatible with the hazardous material stored, the chief may approve alternate fire suppression methods to an automatic sprinkler system.

4. Explosion venting or suppression. When flammable gases which are toxic or highly toxic are stored in rooms outside of gas cabinets or exhausted enclosures, the storage rooms shall be provided with explosion venting or suppression in accordance with the provisions of Section 80.301(q).

5. Spill control, drainage control and secondary containment. Spill control, drainage control and secondary containment are not required for the storage of highly toxic or toxic compressed gases.

6. Ventilation and storage arrangement. A. Ventilated area. Storage of cylinders shall be within ventilated gas cabinets, exhausted enclosures or within a ventilated separate gas storage room. Storage of portable and stationary tanks shall be within a separate ventilated room without other occupancy or use. If gas cabinets are provided, the room or area in which they are located shall have independent exhaust ventilation.

B. Gas cabinets. When gas cabinets are provided they shall be:

(i) Operated at negative pressure in relation to the surrounding area,

(ii) Provided with self-closing limited access ports or noncombustible windows to give access to equipment controls. The average velocity of ventilation at the face of access ports or windows shall be not less than 200 feet per minute with a minimum of 150 feet per minute at any point of the access port or window,

(iii) Connected to an exhaust system,

(iv) Provided with self-closing doors, and

(v) Constructed of not less than 0.097-inch (12 gage) steel.

C. Separate gas storage rooms. When separate gas storage rooms are provided, they shall be designed to:

(i) Operate at a negative pressure in relation to the surrounding area, and

(ii) Direct the exhaust ventilation to an exhaust system.

D. Treatment systems. (i) General. Treatment systems shall be utilized to handle the accidental release of gas. Treatment systems shall be utilized to process all exhaust ventilation to be discharged from gas cabinets, exhausted enclosures or separate gas storage rooms.

(ii) Design. Treatment systems shall be capable of diluting, adsorbing, absorbing, containing, neutralizing, burning or otherwise processing the entire contents of the largest single tank or cylinder of gas stored or used. When a total containment system is utilized, the system shall be designed to handle the maximum anticipated pressure of release to the system when it reaches equilibrium.

(iii) Performance. Treatment systems shall be designed to reduce the maximum allowable discharge concentration of the gas to one-half IDLH at the point of discharge to the atmosphere. When more than one gas is emitted to the treatment system, the treatment system shall be designed to handle the worst-case release based on the release rate, the quantity and the IDLH for all the gases stored or used.

(iv) Sizing. Treatment systems shall be sized to process the maximum worst-case release of gas based on the maximum flow rate of release from the largest cylinder or tank utilized. The entire contents of tanks and cylinders shall be considered.

(v) Stationary tanks. Stationary tanks shall be labeled with the maximum rate of release for the gas contained based on valves or fittings that are inserted directly into the tank. If multiple valves or fittings are provided, the maximum flow rate of release for the valve or fitting with the highest flow rate shall be indicated. If liquefied gases are in contact with valves or fittings, the liquid flow rate shall be utilized for purposes of computation. Flow rates indicated on the label shall be converted to cubic feet per minute of gas at normal temperature and pressure.

(vi) Portable tanks and cylinders. For portable tanks and cylinders, the maximum flow rate of release shall be calculated based on assuming the total release from the cylinder or tank within the time

specified in Table No. 80.303-B. When portable tanks or cylinders are equipped with approved excess flow or reduced flow valves, the worst-case release will be determined by the maximum achievable flow from the valve as determined by the valve manufacturer or the gas supplier. Reduced flow and excess flow valves shall be permanently marked by the manufacturer to indicate the maximum design flow rate. Such markings shall indicate the flow rate for air under standard conditions.

7. Emergency power. Emergency power shall be provided in lieu of standby power for:

A. Exhaust ventilation, including the power supply for treatment systems,

B. Gas-detection systems,

C. Emergency alarm systems, and

D. Temperature-control systems.

8. Limit controls. In addition to the limit controls required by Section 80.301(t), excess flow control shall be provided for stationary tanks which are piped for filling or dispensing.

9. Gas detection. A continuous gas-detection system shall be provided to detect the presence of gas at or below the permissible exposure limit or ceiling limit. The detection system shall initiate a local alarm and transmit a signal to a constantly attended control station. The alarm shall be both visual and audible and shall be designed to provide warning both inside and outside of the storage area. The audible alarm shall be distinct from all other alarms.

EXCEPTIONS: 1. Signal transmission to a constantly attended control station need not be provided when not more than one cylinder is stored.

2. A continuous gas-detection system need not be provided for toxic gases when the physiological warning properties for the gas are at a level below the accepted permissible exposure limit for the gas.

The gas-detection system shall be capable of monitoring the room or area in which the gas is stored at or below the permissible exposure limit or ceiling limit and the discharge from the treatment system at or below one-half the IDLH limit.

10. Smoke detection. An approved supervised smoke-detection system shall be provided in rooms or areas where highly toxic compressed gases are stored indoors. Activation of the detection systems shall sound a local alarm.

11. Storage conditions. The number of cylinders contained in a single gas cabinet shall not exceed three.

EXCEPTION: Cabinets containing cylinders not exceeding 1 pound net contents each shall be limited to a maximum of 100 cylinders.

(b) Exterior Storage. 1. General. Exterior storage of highly toxic or toxic compressed gases shall be in accordance with this subsection and Section 80.301 and 80.303(c).

2. Distance from storage to exposures. Exterior storage of highly toxic or toxic compressed gases shall comply with the Building Code and the following:

A. Distance limitation to exposures. The exterior storage of highly toxic or toxic compressed gases shall not be within 75 feet of a building, property line, street, alley, public way or exit to a public way unless the storage is shielded by a structure having a minimum fire-resistive rating of two hours and which interrupts the line of sight between the storage and the exposure. The protective structure shall be at least 5 feet from exposures. The protective structure shall not have more than two sides at approximately 90-degree directions, or three sides with connecting angles of approximately 135 degrees.

B. Openings in exposure buildings. When the storage area is located closer than 75 feet to a building, openings into a building other than piping shall not be above the height of the top of the

shielding structure or within 50 feet horizontally from the storage area whether or not shielded by a protective structure.

C. Air intakes. The storage area shall not be within 75 feet of air intakes.

3. Canopies. Portable tanks and cylinders stored outside of buildings shall be stored under a canopy of noncombustible construction. Such storage shall not be considered indoor storage.

EXCEPTION: Portable tanks and cylinders used for storing anhydrous ammonia (fertilizer grade).

An automatic fire-sprinkler system shall be provided for canopies provided for the storage of highly toxic or toxic compressed gases.

EXCEPTION: Where water is incompatible with the hazardous material stored, the chief may approve alternate fire-suppression methods to an automatic sprinkler system.

4. Piping and controls. In addition to the requirements of Section 80.301(c), piping and controls on stationary tanks shall be in accordance with the following:

A. Pressure-relief devices shall be vented to a treatment system designed in accordance with Section 80.303(a) 6 D.

B. Where filling or dispensing connections are provided, they shall be provided with a means of local exhaust. Such exhaust shall be designed to capture fumes and vapors. The exhaust shall be directed to a treatment system designed in accordance with Section 80.303(a) 6 D.

C. Stationary tanks shall be provided with a means of excess flow control on tank inlet and outlet connections.

EXCEPTIONS: 1. Inlet connections that are designed to preclude backflow.
2. Pressure-relief devices.

5. Spill control, drainage control and secondary containment. Spill control, drainage control and secondary containment are not required for the exterior storage of highly toxic or toxic compressed gases.

(c) Special Provisions. 1. Seismic protection. Stationary tanks and associated piping systems shall be seismically braced in accordance with the Building Code.

2. Security. Storage areas shall be secured against unauthorized entry.

3. Gas cabinets for leaking cylinders. At least one gas cabinet or exhausted enclosure shall be provided for the handling of leaking cylinders.

EXCEPTIONS: 1. A cabinet or exhausted enclosure need not be provided for leaking cylinders if all cylinders are stored within gas cabinets or exhausted enclosures.
2. A cabinet or exhausted enclosure need not be provided for leaking cylinders if a U.S. DOT approved cylinder containment vessel is provided.

The cabinet or enclosure shall be located as follows:

A. Within or adjacent to exterior storage areas, or

B. Within separate gas storage rooms used for cylinders.

The gas cabinet or exhausted enclosure shall be connected to an exhaust system. See Section 80.303(a) 6 D.

4. Local exhaust for leaking portable tanks. A means of local exhaust shall be provided to capture leaks from portable tanks. Portable ducts or collection systems designed to be applied to the site of a leak in a valve or fitting on the tank are acceptable. The local exhaust system shall be connected to a treatment system as specified in Section 80.303(a) 6 D. The local exhaust system shall be provided:

A. Within or immediately adjacent to exterior storage areas, or

B. Within separate gas storage rooms used for portable or stationary tanks.

NEW SECTION

WAC 51-24-80305 FLAMMABLE SOLIDS AND COMBUSTIBLE DUSTS. SECTION 80.305. (a) Indoor Storage. 1. General. Indoor storage of flammable solids shall be in accordance with this subsection and Section 80.301. Storage of combustible fibers shall be in accordance with Article 28.

2. Exempt amounts. When the amount of flammable solids stored in one control area exceeds that specified in Table No. 80.305-A, such storage shall be within a room or building conforming to the Building Code requirements for a Group H, Division 3 Occupancy, or a Group H, Division 2 Occupancy when combustible dusts are stored in piles or within open containers.

3. Spill control, drainage control and secondary containment. Spill control, drainage control and secondary containment are not required for the storage of flammable solids.

4. Explosion venting or suppression. Rooms, buildings or equipment used for the storage of combustible dusts shall be provided with explosion venting, equivalent protective devices or suppression in accordance with the provisions of Section 80.301(q).

5. Ventilation. Mechanical exhaust ventilation is not required.

6. Storage conditions. Flammable solids stored in quantities greater than 1,000 cubic feet shall be separated into piles each not larger than 1,000 cubic feet. Aisle widths between piles shall be equal to not less than the height of the piles or 4 feet, whichever is greater.

Flammable solids shall not be stored in basements.

(b) Exterior Storage. 1. General. Exterior storage of flammable solids shall be in accordance with this subsection and Section 80.301. Storage of combustible fibers shall be in accordance with Article 28.

2. Distance from storage to exposures. Exterior storage of flammable solids shall not be within 20 feet of any building, property line, street, alley, public way, or exit to a public way. An unpierced two-hour fire-resistive wall extending not less than 30 inches above and to the sides of the storage area is allowed in lieu of such distance.

3. Spill control, drainage control and secondary containment. Spill control, drainage control and secondary containment are not required for exterior storage of flammable solids.

4. Storage conditions. Exterior storage of flammable solids shall be separated into piles not larger than 5,000 cubic feet each. Aisle widths between piles shall be not less than one-half the height of the piles or 10 feet, whichever is greater.

NEW SECTION

WAC 51-24-80315 DELETE SECTION 80.315 CARCINOGENS, IRRITANTS, SENSITIZERS AND OTHER HEALTH HAZARD SOLIDS, LIQUIDS AND GASES ENTIRELY.

NEW SECTION

WAC 51-24-80401 SECTION 80.401. General. (a) Applicability. Dispensing, use and handling of hazardous materials in excess of the exempt amounts specified in Tables Nos. 80.402-A and 80.402-B shall be in accordance with this division.

EXCEPTIONS: 1. Hazardous materials regulated by other articles in this code.
2. Underground storage tanks regulated by 40 CFR 280 or state law.

The provisions for toxic compressed gases shall apply only after consideration of the hazard potential, alternatives for controlling the hazard, and the cost and benefits of the alternatives.

(b) Containers, Cylinders and Tanks. 1. General. Containers, cylinders and tanks utilized for the dispensing, use or handling of hazardous materials shall be in accordance with this subsection.

2. Design and construction. Containers, cylinders and tanks shall be designed and constructed in accordance with nationally recognized standards. See Section 2.304(b).

3. Tanks out of service for 90 days. Stationary tanks not used for a period of 90 days shall be properly safeguarded or removed in a manner approved by the chief. Such tanks shall have the fill line, gage opening and pump connection secured against tampering. Vent lines shall be properly maintained.

4. Defective containers, cylinders and tanks. Defective containers, cylinders and tanks shall be removed from service, repaired, or disposed of in accordance with nationally recognized standards of good practice.

5. Empty containers, cylinders and tanks. Empty containers, cylinders and tanks previously containing hazardous materials shall be free from residual material and vapor or stored as specified for the storage of hazardous material in accordance with Division III.

6. Underground tanks. Underground tanks not otherwise excepted by this section containing hazardous materials shall be located and protected in accordance with Sections 79.601 and 79.603 of this code. Secondary containment shall be provided for all new underground tanks.

7. Aboveground tanks. Aboveground tanks containing hazardous materials shall be located and protected in accordance with the provisions for exterior storage of the particular materials as specified in Division III. Such tanks shall be marked as required by Section 80.401(n).

(c) Piping, Tubing, Valves and Fittings. 1. General. Piping, tubing, valves and fittings conveying hazardous materials shall be installed in accordance with approved standards and shall be in accordance with this subsection.

2. Design and Construction. Piping, tubing, valves, fittings and related components used for hazardous materials shall be in accordance with the following:

A. Piping, tubing, valves, fittings and related components shall be designed and fabricated from materials compatible with the material to be contained and shall be of adequate strength and durability to withstand the pressure, structural and seismic stress and exposure to which they are subject.

B. Piping and tubing shall be identified in accordance with nationally recognized standards to indicate the material conveyed.

C. Emergency shutoff valves shall be identified and the location shall be clearly visible and indicated by means of a sign, and

D. Backflow-prevention or check valves shall be provided when the backflow of hazardous materials could create a hazardous condition or cause the unauthorized discharge of hazardous materials.

3. Supply piping. Supply piping and tubing for gases and liquids having a health hazard ranking of 3 or 4 in accordance with UFC Standard No. 79-3 shall also be in accordance with the following:

A. Piping and tubing utilized for the transmission of highly toxic or toxic materials shall have welded or brazed connections throughout unless an exhausted enclosure is provided if the material is a gas, or the piping is provided with a receptor for containment if the material is a liquid,

EXCEPTIONS: 1. Nonmetallic piping with approved connections.
2. Nationally recognized standards shall be deemed to be in compliance with this section.

B. Piping and tubing shall not be located within exit corridors, within any portion of an exit required to be enclosed in fire-resistive construction, or above areas not classified as Group H Occupancies,

EXCEPTION: Piping and tubing within the space defined by the walls of exit corridors and floor or roof above or in concealed space above other occupancies when installed in accordance with the Building Code as required for Group H, Division 6 Occupancies. See UBC Section 911(f) 2.

C. Where gases or liquids are carried in pressurized piping above 15 psig, excess flow control shall be provided. Where the piping originates from within a hazardous material storage room or area, the excess flow control shall be located within the storage room or area. Where the piping originates from a bulk source, the excess flow control shall be located as close to the bulk source as practical, and

EXCEPTION: Where excess flow control is not appropriate according to nationally recognized standards of good practice.

D. Readily accessible manual or automatic remotely activated fail-safe emergency shutoff valves shall be installed on supply piping and tubing at the following locations:

(i) The point of use, and

(ii) The tank, cylinder or bulk source.

(d) Equipment. Equipment, machinery and processes utilized for dispensing, use or handling of hazardous materials shall be suitable for the intended use. Such equipment, machinery and processes shall be maintained in an operable condition and shall be replaced, repaired or removed from service when found to be defective.

(e) Separation from Storage of Hazardous Materials. Dispensing, use and handling of hazardous materials having a reactivity hazard ranking of 3 or 4 in accordance with UFC Standard No. 79-3 shall be separated from storage of incompatible materials when the quantity in storage exceeds the exempt amounts specified in Sections 80.302 through 80.314. The separation shall be provided by one of the following:

1. Segregated from incompatible hazardous materials storage by a distance of not less than 20 feet,

2. Isolated from incompatible hazardous materials storage by a noncombustible partition extending not less than 18 inches above and to the front and sides of the stored material,

3. Storage of hazardous materials in hazardous materials storage cabinets in accordance with Section 80.301(o), or

4. Storage of compressed gases in gas cabinets or exhausted enclosures in accordance with Section 80.303(a) 6 B.

(f) Noncombustible Floor. Except for surfacing, floors of areas where liquid or solid hazardous materials are dispensed or used in open systems shall be of noncombustible, liquid-tight construction.

(g) Spill control, drainage control and secondary containment. When required by other provisions of this division, spill control, drainage control and secondary containment shall be provided in accordance with Section 80.301(l).

(h) Sources of Ignition. Smoking shall be prohibited in rooms or areas where hazardous materials are dispensed or used in open systems and within 25 feet of outdoor dispensing areas.

Open-flame and other heat-producing equipment shall be located a safe distance from areas where temperature-sensitive materials, flammable materials and compressed gases are dispensed, used or handled.

(i) Static Accumulation. When processes or conditions exist where a flammable mixture could be ignited by static electricity, means shall be provided to prevent the accumulation of a static charge.

(j) Electrical Equipment and Wiring. Electrical equipment and wiring in dispensing and use areas shall be installed in accordance with the provisions of the Washington State Electrical Code Chapter 296-46 WAC.

(k) Limit Controls. 1. General. Limit controls shall be provided in accordance with this subsection.

2. Liquid level. Open tanks in which hazardous materials are used shall be equipped with a liquid level limit control or other means to prevent overfilling of the tank.

3. Temperature. Process tanks and equipment which involve temperature control of the material shall be provided with limit controls to maintain the temperature within a safe range.

4. Pressure. Stationary tanks and equipment containing materials which can generate pressures exceeding the tank or equipment design limits due to exposure fires or internal reaction shall be equipped with pressure-limiting or relief devices. Relief devices for stationary tanks or equipment for highly toxic or corrosive materials shall vent to an exhaust scrubber or treatment system for processing of vapors or gases. Relief devices for flammable or explosive vapors or gases shall vent to an approved location.

(l) Standby power. When mechanical ventilation, treatment systems, temperature control, manual alarm, detection or other electrically operated systems are required by other provisions of this division, such systems shall be connected to a standby source of power to automatically supply electrical power in the event of loss of power from the primary source. See the Washington State Electrical Code Chapter 296-46 WAC.

(m) Supervision. Manual alarm, detection, and automatic fire-extinguishing systems required by other provisions of this division shall be supervised by an approved central, proprietary or remote station service or shall initiate an audible and visual signal at a constantly attended on-site location.

(n) Signage. In addition to the hazard identification signs required by Section 80.107, additional hazard identification and warning signs shall be provided as follows:

1. Signs prohibiting smoking shall be provided in dispensing and open-use areas and within 25 feet of outdoor dispensing or open-use areas, and

2. Stationary containers and tanks shall be placarded with hazard identification signs as specified in UFC Standard No. 79-3 for the specific material contained.

(o) Security. Dispensing, use, and handling areas shall be protected against tampering or trespassing by fencing or other control measures.

(p) Seismic protection. Machinery and equipment utilizing hazardous materials shall be seismically anchored in accordance with the Building Code.

(q) Lighting. Adequate lighting by natural or artificial means shall be provided. Artificial lighting shall be in accordance with the recommendations of the Illuminating Engineering Society Handbook or other nationally recognized standards.

(r) Fire-extinguishing Systems. Indoor rooms or areas in which hazardous materials are dispensed or used shall be protected by an automatic fire-extinguishing system. Sprinkler system design shall not be less than that required by the Building Code for Ordinary Hazard, Group 3, with a minimum design area of 3,000 square feet. See UBC Standard No. 38-1. Where the materials or storage arrangement require a higher level of sprinkler system protection in accordance with nationally recognized standards, the higher level of sprinkler system protection shall be provided.

EXCEPTION: Approved alternate automatic fire-extinguishing systems are allowed.

NEW SECTION

WAC 51-24-80402 DISPENSING AND USE. SECTION 80.402. (a) General. When the amount of hazardous materials dispensed or used in one control area exceeds that specified in Table No. 80.402-A or 80.402-B, such dispensing or use shall either be located in a room or area complying with this section and constructed in accordance with the Building Code, or shall be located in an exterior dispensing, use or handling area located as required for exterior storage in Sections 80.301 through 80.314.

(b) Indoor Dispensing and Use. 1. General. Indoor dispensing and use of hazardous materials shall be in accordance with this subsection and Section 80.401.

2. Open systems. A. General. Dispensing and use of hazardous materials in open containers or systems shall be in accordance with this subsection.

B. Dispensing. When liquids having a hazard ranking of 3 or 4 in accordance with U.F.C. Standard No. 79-3 are dispensed from tanks or drums, dispensing shall be only by approved pumps taking suction from the top or by other methods in accordance with nationally recognized standards of good practice.

C. Ventilation. When gases, liquids or solids having a hazard ranking of 3 or 4 in accordance with U.F.C. Standard No. 79-3 are dispensed or used, approved ventilation shall be provided to control fumes, mists or vapors at the point of generation.

EXCEPTION: Gases, liquids or solids which can be demonstrated not to create harmful fumes, mists or vapors based on applicable recognized standards.

D. Fire-extinguishing system. In addition to the provisions of Section 80.401(r), laboratory fume hoods and spray booths where flammable materials are dispensed or used shall be protected by an automatic fire-extinguishing system.

E. Explosion venting or suppression. Explosion venting or suppression shall be provided in accordance with the provisions of Section 80.301(q) when an explosion hazard can occur because of the characteristics or nature of the hazardous materials dispensed or used, or as a result of the dispensing or use process.

F. Spill control, drainage and containment. Rooms or areas where hazardous material liquids are dispensed into containers exceeding 1-gallon capacity or used in open containers or systems exceeding a 5-gallon capacity shall be provided with a means to control spills. Secondary containment shall be provided when the capacity of an individual container exceeds 55 gallons or the aggregate capacity of multiple containers exceeds 100 gallons.

3. Closed systems. A. General. Use of hazardous materials in closed containers or systems shall be in accordance with this subsection.

B. Use. Systems shall be suitable for the use intended and shall be designed by persons competent in such design. Where nationally recognized good practices or standards have been established for the processes employed, they shall be followed in the design. Controls shall be designed to prevent materials from entering or leaving process or reaction systems at other than the intended time, rate or path. When automatic controls are provided, they shall be designed to be fail safe.

C. Ventilation. If closed systems are designed to be opened as part of normal operations, ventilation shall be provided in accordance with Section 80.402(b) 2 C.

D. Fire-extinguishing system. In addition to Section 80.401 (r), laboratory fume hoods and spray booths where flammable materials are used shall be protected by an automatic fire-extinguishing system.

E. Explosion venting or suppression. Explosion venting or suppression shall be provided in accordance with the provisions of Section 80.301(q) when an explosion hazard can occur because of the hazardous materials dispensed or used, or as a result of the dispensing or use process.

F. Spill control, drainage control and secondary containment. Rooms or areas where hazardous material liquids are used in individual tanks or containers exceeding 55 gallons shall be provided with a means to control spills. Secondary containment shall be provided if the aggregate capacity of multiple tanks or containers exceeds 1,000 gallons.

G. Special requirements for highly toxic and toxic compressed gases. (i) Ventilation and storage arrangement. Compressed gas cylinders in use shall be within ventilated gas cabinets, laboratory fume hoods, exhausted enclosures or separate gas storage rooms. When portable or stationary tanks are utilized in use or dispensing, they shall be within a ventilated separate gas storage room or placed within an exhausted enclosure.

(ii) Gas cabinets and exhausted enclosures. When gas cabinets or exhausted enclosures are provided, they shall be in accordance with Section 80.303(a) 6 B. Gas cabinets and exhausted enclosures shall be internally sprinklered.

(iii) Separate gas storage rooms. When separate gas storage rooms are provided, they shall be in accordance with Section 80.303 (a) 6 C.

(iv) Treatment systems. Treatment systems shall be provided in accordance with Section 80.303(a) 6 D.

(v) Gas detection. Gas detection shall be provided in accordance with Section 80.303(a) 9. Activation of the monitoring system shall automatically close the shutoff valve on highly toxic or toxic gas supply lines related to the system being monitored.

EXCEPTION: Automatic shutdown need not be provided for reactors utilized for the production of toxic or highly toxic gases when such reactors are:
1. Operated at pressures less than 15 psig,
2. Constantly attended, and
3. Provided with readily accessible emergency shutoff valves.

(vi) Smoke detection. Smoke detection shall be provided in accordance with Section 80.303(a) 10.

(vii) Storage conditions. The number of cylinders contained in a single gas cabinet shall not exceed three.

(c) Exterior Dispensing and Use. 1. General. Exterior dispensing or use of hazardous materials in either closed or open containers or systems shall be in accordance with this subsection and Section 80.401.

2. Dispensing. When liquids having a hazard ranking of 3 or 4 in accordance with U.F.C. Standard No. 79-3 are dispensed from tanks or drums, dispensing shall be by approved pumps taking suction from the top or by other methods in accordance with nationally recognized standards of good practice.

3. Fire-extinguishing system. Flammable hazardous materials dispensing or use areas located within 50 feet of either a storage area or building, and vehicle loading racks where flammable hazardous materials are dispensed, shall be protected by an approved fire-extinguishing system.

4. Spill control, drainage control and secondary containment. A. Open systems. Exterior areas where hazardous materials liquids are dispensed into containers exceeding a 1-gallon capacity or used in open containers or systems exceeding a 5-gallon capacity shall be provided with a means to control spills. Secondary containment shall be provided when the capacity of an individual container exceeds 55

gallons or the aggregate capacity of multiple containers exceeds 100 gallons.

B. Closed systems. Exterior areas where hazardous materials liquids are used in individual tanks or containers exceeding 55 gallons shall be provided with a means to control spills. Secondary containment shall be provided when the aggregate capacity of multiple tanks or containers exceeds 1,000 gallons.

5. Clearance from combustibles. The area surrounding an exterior dispensing or use area shall be kept clear of combustible materials and vegetation for a minimum distance of 30 feet.

6. Fire access roadways and water supply. A. General. Fire access roadways and approved water supplies shall be provided for exterior dispensing or use areas in accordance with this subsection.

B. Fire access roadways. Fire apparatus access roadways shall be provided to within 150 feet of all portions of an exterior dispensing or use area. Such access roadways shall comply with Article 10, Division II.

C. Water supply. An approved water supply shall be provided. Fire hydrants or other approved means capable of supplying the required fire flow shall be provided to within 150 feet of all portions of an exterior dispensing or use area. The water supply and fire hydrants shall comply with Article 10, Division IV.

7. Protection from vehicles. Guard posts or other means shall be provided to protect exterior dispensing or use areas from vehicular damage. When guard posts are installed, the posts shall be in accordance with Section 80.301(w).

8. Special requirements for highly toxic or toxic compressed gases. A. Ventilation and storage arrangement. When cylinders or portable containers are used out-of-doors, gas cabinets or a locally exhausted enclosure shall be provided.

B. Gas cabinets. When gas cabinets are provided, the installation shall be in accordance with Section 80.303(a) 6 B.

C. Treatment systems. Treatment systems shall be provided in accordance with Section 80.303(a) 6 D.

D. Gas detection. Gas detection shall be provided in gas cabinets and exhausted enclosures in accordance with Section 80.303(a) 9. Activation of the monitoring system shall automatically close the shutoff valve on highly toxic or toxic gas supply lines related to the system being monitored.

EXCEPTION: Automatic shutdown need not be provided for reactors utilized for the production of toxic or highly toxic gases when such reactors are:

1. Operated at pressures less than 15 psig,
2. Constantly attended, and
3. Provided with readily accessible emergency shutoff valves.

E. Fire-extinguishing system. Gas cabinets and exhausted enclosures shall be internally sprinklered.

NEW SECTION

WAC 51-24-99500 DIVISION V. STANDARDS.

NEW SECTION

WAC 51-24-99510 APPENDIX V-A. NATIONALLY RECOGNIZED STANDARDS OF GOOD PRACTICE. 1. Scope. The following standards and publications are intended for use as a guide to attain a reasonable level of safety where specific requirements are not stated or specific standards are not adopted or referenced in the code.

2. AMERICAN GAS ASSOCIATION LABORATORIES
8501 East Pleasant Road, Cleveland, OH 44131
1425 Grande Vista Avenue, Los Angeles, CA 90023
DIRECTORY OF CERTIFIED APPLIANCES AND ACCESSORIES

COMPRESSED GAS ASSOCIATION, INC.
1235 Jefferson Davis Highway, Arlington, VA 22202
CGA PAMPHLETS
G-1 Acetylene.
G-2 Anhydrous Ammonia.
G-3 Sulphur Dioxide.
G-4 Oxygen.
G-5 Hydrogen.
P-1 Safe Handling of Compressed Gases.
P-2 Characteristics and Safe Handling of Medical Gases.
V-5 Diameter-Index Safety System.

FACTORY MUTUAL ENGINEERING AND RESEARCH
1151 Boston-Providence Turnpike, Norwood, MA 02062

INSTITUTE OF MAKERS OF EXPLOSIVES
1120 19th Street, N.W., Suite 310, Washington, D.C. 20036-3605
IME PAMPHLETS
No. 1 Construction Guide for Storage Magazines
No. 20 Radio Frequency Radiation Hazard in Use of Electric Blasting Caps

NATIONAL FIRE PROTECTION ASSOCIATION
Batterymarch Park, Quincy, MA 02269
NFPA NATIONAL FIRE CODES

UNDERWRITERS LABORATORIES INC.
333 Pfingsten Road, Northbrook, IL 60062
1655 Scott Blvd., Santa Clara, CA 95050
U.L. INC. DIRECTORIES
Automotive, Burglary Protection and Mechanical Equipment.
Building Materials.
Electrical Appliance and Utilization Equipment.
Electrical Construction Materials.
Fire Protection Equipment.
Fire Resistance.
Gas and Oil Equipment.
General Information from Electrical Construction Materials and Hazardous Location Equipment Directories.
Hazardous Location Equipment.
Marine Products.
Recognized Component.

UNITED STATES GOVERNMENT AGENCIES
Code of Federal Regulations (CFR), Titles 1-50, Superintendent of Documents
U.S. Government Printing Office, Washington, DC 20402

THE CHLORINE INSTITUTE, INC.
2001 L Street, NW, Washington, DC 20036
The Chlorine Manual.
Instruction Booklet Chlorine Institute Emergency Kit "A" for 100-pound and 150-pound Chlorine Cylinders.
Instruction Booklet Chlorine Institute Emergency Kit "B" for Chlorine Ton Containers.
Instruction Booklet Chlorine Institute Emergency Kit "C" for Chlorine Tank Cars/Tank Trucks.
Chlorine Institute Drawing 188, Chlorine Cylinder Recovery Vessel.

Chapter 51-25 WAC

STATE BUILDING CODE ADOPTION OF THE 1991 EDITION OF THE UNIFORM FIRE CODE STANDARDS

NEW SECTION

WAC 51-25-001 AUTHORITY. These rules are adopted under the authority of chapter 19.27 RCW.

NEW SECTION

WAC 51-25-002 PURPOSE. The purpose of these rules is to implement the provisions of chapter 19.27 RCW, which provides that the state building code council shall maintain the State Building Code in a status which is consistent with the purpose as set forth in RCW 19.27.020. In maintaining the codes the council shall regularly review updated versions of the codes adopted under the act, and other pertinent information, and shall amend the codes as deemed appropriate by the council.

NEW SECTION

WAC 51-25-003 UNIFORM FIRE CODE STANDARDS. The 1991 edition of the Uniform Fire Code Standards published by the International Conference of Building Officials, and the Western Fire Chiefs Association is hereby adopted by reference.

NEW SECTION

WAC 51-25-007 EXCEPTIONS. The exceptions and amendments to the Uniform Fire Code Standards contained in the provisions of chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

NEW SECTION

WAC 51-25-008 IMPLEMENTATION. The Uniform Fire Code Standards adopted by chapter 51-25 WAC shall become effective in all counties and cities of this state on July 1, 1992, unless local amendments have been approved by the state building code council.