



E-MAKING ORDER (RCW 34.05.360)

CR-103 (4/25/96)

Agency: Washington State Building Code Council

- Permanent Rule
- Emergency Rule
- Expedited Repeal

(1) Date of adoption: November 14, 1997

(2) Purpose: To adopt WAC 51-42, Washington State Adoption and Amendment of the 1997 Uniform Mechanical Code; and to repeal WAC 51-32, State Adoption and Amendment of the 1994 Uniform Mechanical Code.

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

- Repealed: WAC 51-32
- Amended:
- Suspended:

(4) Statutory authority for adoption: RCW 19.27.031, 19.27.074
Other authority:

PERMANENT RULE ONLY

Adopted under notice filed as WSR 97-116-115 on August 6, 1997 (date).
Describe any changes other than editing from proposed to adopted version:
Please see attached

EMERGENCY RULE ONLY

Under 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:

EXPEDITED REPEAL ONLY

Under Preproposal Statement of Inquiry filed as WSR _____ on _____ (date).

(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
or Expedited Repeal
<input type="checkbox"/> 31 days after filing
<input checked="" type="checkbox"/> Other (specify) <u>7/1/98*</u> | Emergency Rules
<input type="checkbox"/> Immediately
<input type="checkbox"/> 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) Mike McEnaney

SIGNATURE

TITLE Council Chair DATE 1/5/98

CODE REVISER USE ONLY

CODE REVISER'S OFFICE
STATE OF WASHINGTON
FILED

JAN 6 1998

TIME 12:01 AM
WSR 98-02-056 PM

**Note: If any category is left blank, it will be calculated as zero.
No descriptive text.**

**Count by whole WAC sections only, from the WAC number through the history note.
A section may be counted in more than one category.**

The number of sections adopted in order to comply with:

Federal statute:	New	_____	Amended	_____	Repealed	_____
Federal rules or standards:	New	_____	Amended	_____	Repealed	_____
Recently enacted state statutes:	New	<u>1</u>	Amended	_____	Repealed	_____

The number of sections adopted at the request of a nongovernmental entity:

New	<u>19</u>	Amended	_____	Repealed	_____
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The number of sections adopted on the agency's own initiative:

New	_____	Amended	_____	Repealed	_____
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The number of sections adopted in order to clarify, streamline, or reform agency procedures:

New	_____	Amended	_____	Repealed	<u>28</u>
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The number of sections adopted using:

Negotiated rule making:	New	<u>31</u>	Amended	_____	Repealed	<u>28</u>
Pilot rule making:	New	_____	Amended	_____	Repealed	_____
Other alternative rule making:	New	_____	Amended	_____	Repealed	_____

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

WAC 51-42-1106.7 Egress: Exception 2 was added to maintain current regulation and resulted from testimony at the public hearing.

WAC 51-42-1312.18 Marking and labeling. Change the term "natural" to "fuel" throughout the section. Language was clarified to change the location and marking of labels to apply for all fuel gases. This change was made based on public testimony.

WAC 51-42-1401 Oil-burning appliances. Language was added to reference to the fire code. This change was made based on public testimony.

Chapter 51-42 WAC

STATE BUILDING CODE ADOPTION AND AMENDMENT
OF THE 1997 EDITION OF THE UNIFORM MECHANICAL CODE

NEW SECTION

WAC 51-42-001 Authority. These rules are adopted under the authority of chapter 19.27 RCW.

NEW SECTION

WAC 51-42-002 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 51-42-003 Uniform Mechanical Code. The 1997 edition of the Uniform Mechanical Code published by the International Conference of Building Officials is hereby adopted by reference with the exceptions noted in this chapter of the Washington Administrative Code.

NEW SECTION

WAC 51-42-004 Conflict between uniform mechanical code and state energy code chapter 51-11 WAC. In the case of conflict between the duct sealing or insulation requirements of Section 601 or Section 604 of this code and the duct sealing or insulation requirements of chapter 51-11 WAC, the Washington State Energy

Code, or where applicable, a local jurisdiction's energy code, the provisions of such energy codes shall govern.

NEW SECTION

WAC 51-42-005 Conflict between uniform mechanical code and state ventilation and indoor air quality code chapter 51-13 WAC. In the case of conflict between the Group R ventilation requirements of this code and the Group R ventilation requirements of chapter 51-13 WAC, the Washington State Ventilation and Indoor Air Quality Code, the provisions of the Ventilation and Indoor Air Quality Code shall govern.

NEW SECTION

WAC 51-42-007 Exceptions. The exceptions and amendments to the Uniform Mechanical Code contained in the provisions of chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

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

NEW SECTION

WAC 51-42-008 Implementation. The Uniform Mechanical Code adopted by chapter 51-42 WAC shall become effective in all counties and cities of this state on July 1, 1998.

NEW SECTION

WAC 51-42-0200 Chapter 2--Definitions.

NEW SECTION

WAC 51-42-0223 Section 223--U. UNUSUALLY TIGHT CONSTRUCTION is construction where:

1. Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm or less with any openings gasketed or sealed, and
2. Weatherstripping on openable windows and doors, and
3. Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels and at penetrations for plumbing, electrical, and gas lines and at other openings, or
4. Buildings built in compliance with the 1986 or later editions of the Washington State Energy Code WAC 51-11, Northwest Energy Code, or Super Good Cents weatherization standards or equivalent.

NEW SECTION

WAC 51-42-0303 Section 303--Installation.

303.1.1 Prohibited installations. No unvented or direct fired fuel-burning equipment shall be installed or used to provide comfort heating within any occupancy group other than Group F, S or U.

- EXCEPTIONS:
1. Direct gas-fired makeup air heaters may be installed in accordance with Section 909.
 2. Approved, unvented portable oil-fueled heaters may be used as a supplemental heat source in any Group B, F-2, M, R, or U Occupancy provided that such heaters shall not be located in any sleeping room or bathroom, and shall comply with RCW 19.27A.080, 19.27A.090, 19.27A.100, 19.27A.110, and 19.27A.120.

NEW SECTION

WAC 51-42-0504 Environmental air ducts.

504.3.1 Moisture exhaust ducts. Moisture exhaust ducts for domestic clothes dryers shall terminate on the outside of the building and shall be equipped with a back-draft damper. Screens shall not be installed at the duct termination. Ducts for exhausting clothes dryers shall not be connected or installed with sheet metal screws or other fasteners which will obstruct the flow. Clothes dryer moisture exhaust ducts shall not be connected to a gas vent connector, gas vent or chimney. Clothes dryer moisture exhaust ducts shall not extend into or through ducts or plenums. Clothes dryer exhaust ducts shall be protected by a steel plate or clip not less than 1/16 inch (1.59 mm) in thickness and of sufficient width to fully protect the duct. Plates or clips shall be placed on the finish face of all framing members which the clothes dryer exhaust duct passes through when there is less than one-and-one-quarter inch (1¼") (32 mm) of framing material between

the duct and the finish face. Plates or clips shall also be placed where nails or screws from finish or other work are likely to penetrate the clothes dryer exhaust duct.

NEW SECTION

WAC 51-42-0600 Chapter 6--Duct systems.

NEW SECTION

WAC 51-42-0601 Scope.

601.1 Material. Supply air, return air, and outside air for heating, cooling, or evaporative cooling systems shall be conducted through duct systems constructed of metal as set forth in Tables 6-A, 6-B and 6-C; metal ducts complying with the U.M.C. Standard 6-1 with prior approval; or factory-made air ducts complying with UL 181. Ducts, plenums, and fittings may be constructed of concrete, clay, ceramics, or other approved nonmetallic materials when installed in the ground or in a concrete slab, provided the joints are tightly sealed.

601.1.1 Use of corridor as plenum. Corridors shall not be used to convey air to or from rooms if the corridor is required to be of fire-resistive construction by Section 1005 of the Building Code.

- EXCEPTIONS:
1. Where such air is part of an engineered smoke control system.
 2. Corridors conforming to Section 1007.5 of the Uniform Building Code in Group I occupancies.
 3. Corridors serving residential occupancies may be supplied without specific mechanical exhaust subject to the following:
 - 3.1 The supply air is 100% outside air, and
 - 3.2 The units served by the corridor have conforming ventilation independent of the air supplied to the corridor, and
 - 3.3 For other than high-rise buildings, the supply fan will automatically shut off upon activation of corridor smoke detectors which shall be spaced at no more than 30 feet (9144 mm) on center along the corridor, or
 - 3.4 For high-rise buildings, corridor smoke detector activation will close required smoke/fire dampers at the supply inlet to the corridor at the floor receiving the alarm.

601.3 Contamination Prevention. Exhaust ducts under positive pressure and venting systems shall not extend into or pass through ducts or plenums. For appliance vents and chimneys, see Chapter 8.

- EXCEPTION:
- Exhaust ducts conveying environmental air may pass through a duct or plenum provided that:
1. The duct is maintained under sufficient negative pressure to prevent leakage of the exhaust air to the surrounding duct or plenum; or
 2. If maintained under a positive pressure with respect to the surrounding duct or plenum, the exhaust duct will be sealed to prevent leakage; or
 3. The surrounding air stream is an exhaust air stream not intended for recirculation to the building and cross contamination of the two air streams will not create a hazardous condition.

NEW SECTION

WAC 51-42-0605 Dampers in duct systems.

605.2 Fire Dampers. Fire dampers complying with recognized standards in Chapter 16, Part III, shall be installed in accordance with approved manufacturer's instructions when required by Chapter 7 of the Building Code. Fire dampers shall have been tested for closure under airflow conditions and shall be labeled for both maximum airflow permitted and direction of flow. When more than one damper is installed at a point in a single air path, the entire airflow shall be assumed to be passing through the smallest damper area. Fire dampers shall be labeled by an approved agency. Only fire dampers labeled for use in dynamic systems shall be installed in heating, ventilation and air-conditioning systems which are intended to operate with fans "on" during a fire; see U.B.C. Section 713.12.

EXCEPTION: Fire dampers need not be installed in air ducts passing through the wall, floor, or ceiling separating a Group R, Division 3 Occupancy from a Group U Occupancy, provided such ducts within the Group U Occupancy are constructed of steel having a thickness not less than 0.019 inch (0.48 mm) (No. 26 galvanized sheet gage) and have no openings into the Group U Occupancy.

Ductwork shall be connected to damper sleeves or assemblies in such a way that collapse of the ductwork will not dislodge the damper or impair its proper operation.

NEW SECTION

WAC 51-42-0901 Vented decorative appliances, decorative gas appliances for installation in solid-fuel-burning fireplaces, gas-fired log lighters, unvented decorative gas logs and decorative fireplaces.

901.4 Unvented decorative gas logs and decorative fireplaces. Approved, unvented decorative gas logs and decorative fireplaces may be installed, used, maintained, and permitted to exist in any Group I or R Occupancy, except bathrooms and bedrooms. An unvented decorative gas log is a listed natural or liquefied petroleum gas burning log with an open flame consisting of a metal frame or base supporting simulated logs which is designed so that its primary function lies in the aesthetic effect of the logs and flame. An unvented decorative fireplace is a listed unvented gas log permanently installed in a freestanding enclosure or zero clearance enclosure designed and approved for installation in walls or other building structures. Unvented decorative gas logs and fireplaces shall:

1. Be equipped with an approved oxygen-depletion sensor;
2. Be listed;
3. Not be installed in any room which does not have an alternative primary source of heat;
4. Have free air volume of at least 50 cubic feet (1.4 m³) for each 1,000 Btus (2.2 mm²/W) of thermal output; and
5. Be permanently installed.

NEW SECTION

WAC 51-42-1000 Chapter 10--Boiler/water heaters.

NEW SECTION

WAC 51-42-1002 General.

1002.2 Water Heater Used for Space Heating. The potability of the domestic water system shall be maintained when a water heater is used as a part of a space heating system.

Water heaters used for space heating only are prohibited.

NEW SECTION

WAC 51-42-1004 Safety devices. This section is not adopted.

For safety devices and installation of water heaters, see the Plumbing Code.

NEW SECTION

WAC 51-42-1005 Steam and hot-water boilers. Part II--Steam and Hot-water Boilers, Sections 1005 through 1029 and Table 10-A through Table 10-C, are not adopted.

Boilers and Unfired Pressure Vessels are regulated by chapter 70.79 RCW and chapter 296-104 WAC.

NEW SECTION

WAC 51-42-1100 Chapter 11--Refrigeration.

NEW SECTION

WAC 51-42-1101 General.

1101.1 Scope. This chapter shall govern the design, installation, construction and repair of refrigeration systems that vaporize and

liquefy a fluid during the refrigerating cycle. Refrigerant piping design and installation, including pressure vessels and pressure relief devices, shall conform to this code. Permanently installed refrigerant storage systems and other components shall be considered as part of the refrigeration system to which they are attached.

1101.2 Factory-built equipment. Listed and labeled self-contained, factory-built equipment shall be tested in accordance with UL 207, 303, 412, 465, 471 or 1995.

1101.3 Protection. Any portion of a refrigeration system that is subject to physical damage shall be protected in an approved manner.

1101.4 Water connection. Water supply and discharge connections associated with refrigeration systems shall be made in accordance with this code and the plumbing code.

1101.5 Gas connection. Gas fuel devices and equipment used with refrigeration systems shall be installed in accordance with this code.

1101.6 General. Refrigeration systems shall comply with the requirements of this code and, except as modified by this code, ASHRAE 15-1994. Ammonia-refrigerating systems shall comply with this code and, except as modified by this code, ASHRAE 15-1994 and IIAR 2-1992.

NEW SECTION

WAC 51-42-1102 System requirements.

1102.1 General. The system classification, allowable refrigerants, the maximum quantity, enclosure requirements, location limitations and field pressure test requirements, shall be determined as follows:

1. Determine the refrigeration system's classification in accordance with Section 1103.
2. Determine the refrigerant classification in accordance with Table 1104.1.
3. Determine the maximum allowable quantity of refrigerant in accordance with Table 1104.2(1), based on type of refrigerant, system classification and occupancy.
4. Determine the system enclosure requirements in accordance with Table 1104.2(1).
5. Refrigeration equipment location and installation shall be subject to the limitations of Chapter 3.
6. Nonfactory-tested, field-erected equipment shall be pressure tested in accordance with Section 1108.

1102.2 Refrigerants. Refrigerants not identified in Table 1104.1 shall be approved before use. Refrigerants (including refrigerant

blends) with different designations in ASHRAE 34-1992, with addenda through 1995, shall not be mixed in a system.

1102.2.1 New refrigerants. Refrigerants used in new equipment shall be of a type and purity level specified or approved by the equipment manufacturer.

1102.2.2 Recovered refrigerants. Refrigerants that are recovered from refrigeration and air-conditioning systems shall not be reused in other than the system from which they were recovered and in other systems of the same owner. Recovered refrigerants shall be filtered and dried before reuse. Recovered refrigerants that show clear signs of contamination shall not be reused unless reclaimed in accordance with Section 1102.2.3.

1102.2.3 Reclaimed refrigerants. Used refrigerants shall not be reused in a different owner's equipment unless reclaimed and found to meet the purity requirements of ARI 700-1993. Contaminated refrigerants shall not be used in the same owner's equipment or in a different owner's equipment unless reclaimed and found to meet the purity requirements of ARI 700-1993.

NEW SECTION

WAC 51-42-1103 Refrigeration system classification.

1103.1 General. For the purposes of applying Tables 1104.1, 1104.2(1), and 1104.2(2), refrigeration systems shall be classified as high-probability or low-probability system based on the potential hazard resulting from a leakage of refrigerant into an occupancy-classified area other than the machinery room.

1103.2 High-probability systems. Direct systems and indirect open-spray systems shall be classified as high-probability systems.

EXCEPTION: An indirect open-spray system shall not be required to be classified as a high-probability system if the pressure of the secondary coolant is at all times (operating and standby) greater than the pressure of the refrigerant.

1103.3 Low-probability systems. Double-indirect open-spray systems, indirect closed systems and indirect-vented closed systems shall be classified as low-probability systems, provided that all refrigerant-containing piping and fittings are isolated when the quantities in Table 1104.1 are exceeded.

NEW SECTION

WAC 51-42-1104 Refrigerant classification and system requirements.

1104.1 Refrigerant classification. Refrigerants shall be classified in accordance with ASHRAE 34-1992, with addenda through 1995, as listed in Table 1104.1.

TABLE 1104.1
REFRIGERANT^a CLASSIFICATION, AMOUNT^{b,c} AND TLV-TWA^d

REFRIGERANT DESCRIPTION			AMOUNT OF REFRIGERANT PER OCCUPIED SPACE			TLV ^d TWA
Refrigerant Classification	Name or Blend	Chemical Formula	Lb per 1,000 ft ^{3a}	ppm	g/m ^{3c}	ppm
Group A1						
R-11	Trichlorofluoromethane	CCl ₃ F	1.6	4,000	250	C1,000
R-12	Dichlorofluoromethane	CCl ₂ F ₂	12	40,000	200	1,000
R13	Chlorotrifluoromethane	CClF ₃	18	67,000	290	1,000
R-13B1	Bromotrifluoromethane	CBrF ₃	22	57,000	350	1,000
R-14	Tetrafluoromethane (Carbon Tetrafluoride)	CF ₄	15	67,000	240	1,000
R-22	Chlorodifluoromethane	CHClF ₂	9.4	42,000	150	1,000
R-113	1,1,2-trichloro- 1,2,2-trifluoroethane	CCl ₂ FCClF ₂	1.9	4,000	31	1,000
R-114	1,2-dichloro- 1,1,2,2-tetrafluoroethane	RCClF ₂ CClF ₂	9.4	21,000	150	1,000
R-115	Chloropentafluoroethane	CClF ₂ CF ₃	27	67,000	430	1,000
R-134a	1,1,1,2-tetrafluoroethane	CH ₂ FCF ₃	16	60,000	250	1,000
R-C318	Octafluorocyclobutane	-CF ₂ -CF ₂ -CF ₂ -CF ₂ -	35	67,000	550	1,000
R-400	R-12/R-114	CCl ₂ F ₂ /CCl ₂ FCClF ₂	Note d	Note d	Note d	1,000
R-500	R-12/152a(73.8/26.2)	CClF ₂ /CH ₃ CHF ₂	12	47,000	200	1,000
R-502	R-22/115(48.8/51.2)	CHClF ₂ /CClF ₂ CF ₃	19	65,000	300	1,000
R-503	R-23/13(40.1/59.9)	CHF ₃ /CClF ₃	15	67,000	240	1,000
R-744	Carbon Dioxide	CO ₂	5.7	50,000	91	5,000
Group A2						
R-142b	1-chloro-1,1-difluoroethane	CH ₃ CClF ₂	3.7	14,000	60	1,000
R-152a	1,1-difluoroethane	CH ₃ CHF ₂	1.2	7,000	20	1,000
Group A3^e						
R-170	Ethane	CH ₃ CH ₃	0.50	6,400	8.0	1,000
R-290	Propane	CH ₃ CH ₂ CH ₃	0.50	4,400	8.0	1,000
R-600	Butane	CH ₃ CH ₂ CH ₂ CH ₃	0.51	3,400	8.2	800
R-600a	2-Methyl propane (Isobutane)	CH(CH ₃) ₂ -CH ₃	0.51	3,400	8.2	800
R-1150	Ethene (Ethylene)	CH ₂ =CH ₂	0.38	5,200	6.0	1,000
R-1270	Propene (Propylene)	CH ₃ CH=CH ₂	0.37	3,400	5.0	1,000
Group B1						
R-123	2,2-dichloro-1,1,1-trifluoroethane	CHCl ₂ CF ₃	0.4	1,000	6.3	30
R-764	Sulfur Dioxide	SO ₂	0.016	100	0.26	2
Group B2						
R-40	Chloromethane (methyl chloride)	CH ₃ Cl	1.3	10,000	21.0	C50
R-611	Methyl Formate	HCOOCH ₃	0.78	5,000	12.0	100
R-717	Ammonia	NH ₃	0.022	500	0.35	25
Group B3^e						

For SI: 1 pound = 0.454 kg, 1 cubic foot = 0.0283 m³.

^a Other refrigerants shall be approved.

^b To be used only in conjunction with footnotes from Table 1104.2(1).

^c To correct for height, *H* (feet), above sea level, multiply these values by (1-2.42 x 10⁻⁶*H*). To correct for height, *h* (km), above sea level, multiply these values by (1-7.94 x 10⁻³*h*). Do not adjust volume percent or TLV-TWA (ppm) for altitude.

^d The quantity of each component shall comply with the limits set in Table 1104.1 for the pure compound and the total volume percent of all components shall not exceed 6.7 volume percent.

^e The basis of the table amounts is given as follows:

Group A1 Eighty percent of the cardiac sensitization level for R-11, R-12, R-13B1, R-22, R-113, R-114, R-134a, R-500 and R-502. One hundred percent of the IDLH for R-744. Others are limited by levels where oxygen deprivation begins to occur.

Group A2, A3 Approximately 20 percent of LFL.

Group B1 One hundred percent of IDLH for R-764, and 100 percent of the measure consistent with the IDLH for R-123.

Group B2, B3 One hundred percent of IDLH or 20 percent of LFL, whichever is lower.

^f TLV-TWA or measure consistent therewith to be used with Section 1104. The values shown for R-11 and R-40 are TLV-C (TLV-ceiling) values not to be exceeded.

^g Group A3 and B3 refrigerants, as listed in Table 1104.1 shall not be used in a refrigerating system in excess of 1,000 pounds, unless approved by the code official.

1104.2 System requirements. The maximum allowable refrigerant quantities shall be in accordance with Table 1104.2(1). To use Table 1104.2(1), determine the occupancy class, refrigerant group in accordance with Table 1104.1 and type of system in accordance with Section 1103, and then locate the notes that apply.

1104.2.1 **Occupancy classification.** Locations of refrigerating systems are described by occupancy classifications that consider the ability of people to respond to potential exposure to refrigerant. Where equipment, other than piping, is located outside a building and within 20 feet (6096 mm) of any building opening, such equipment shall be governed by the occupancy classification of the building. Occupancy classifications shall be defined as follows:

1. Institutional occupancy is that portion of premises from which, because they are disabled, debilitated or confined, occupants cannot readily leave without the assistance of others. Institutional occupancies include, among others, hospitals, nursing homes, asylums and spaces containing locked cells.
2. Public assembly occupancy is that portion of premises where large numbers of people congregate and from which occupants cannot quickly vacate the space. Public assembly occupancies include, among others, auditoriums, ballrooms, classrooms, passenger depots, restaurants and theaters.
3. Residential occupancy is that portion of premises that provides the occupants with complete independent living facilities, including permanent provisions for living, sleeping, eating, cooking and sanitation. Residential occupancies include, among others, dormitories, hotels, multi-unit apartments and private residences.
4. Commercial occupancy is that portion of premises where people transact business, receive personal service or purchase food and other goods. Commercial occupancies include, among others, office and professional buildings, markets (but not large mercantile occupancies) and work or storage areas that do not qualify as industrial occupancies.
5. Large mercantile occupancy is that portion of premises where more than 100 persons congregate on levels above or below street level to purchase personal merchandise.
6. Industrial occupancy is that portion of premises that is not open to the public, where access by authorized persons is controlled, and that is used to manufacture, process or store goods such as chemicals, food, ice, meat or petroleum.
7. Mixed occupancy occurs when two or more occupancies are located within the same building. When each occupancy is isolated from the rest of the building by tight walls, floors and ceilings and by self-closing doors, the requirements for each occupancy shall apply to its portion of the building. When the various occupancies are not so isolated, the occupancy having the most stringent requirements shall be the governing occupancy.

TABLE 1104.2(1)

SYSTEM APPLICATION REQUIREMENTS

(Letters in the table under "Occupancy" refer to footnotes.)

Where more than one footnote exists, each footnote is a limitation on the other.)

(For system and refrigerant classifications see Section 1103 and Table 1104.1.)

REFRIGERANT GROUP	SYSTEM CLASSIFICATION	OCCUPANCY ^d		
		Institutional	Public assembly, residential, commercial and large mercantile	Industrial
A1	High	a	b	c
	Low	d	d	d
A2	High	e	e	c,f,h
	Low	g	g	g
A3	High	i	i	c,f,h
	Low	i	i	g
B1	High	a,f	b,f	c
	Low	d	d	d
B2	High	e,f	e,f	c,f,h
	Low	g	g	g
B3	High	i	i	c,f,h
	Low	i	i	g

For SI: 1 square foot = 0.0929 m², 1 pound = 0.454 kg.

^aThe refrigerant amount is limited to 50 percent of those listed in Table 1104.1, except Footnote b applies in kitchens, laboratories and mortuaries. If any portion of a refrigerant system containing more than 1 pound of refrigerant (except R-744) is in a room with a flame-sustaining device, this device shall be provided with a hood to exhaust combustion products to the outside air. Otherwise Footnotes e and f shall be followed.

^bThe refrigerant amount shall be limited as listed in Table 1104.1

^cThe refrigerant amount shall be unlimited when all of the following are satisfied:

1. The area containing machinery is separated from the areas of the building not containing machinery by tight construction with tight-fitting doors;
2. Egress from the room is directly outdoors;
3. The number of persons in a machinery-containing space on any floor above the first floor (ground level or deck level) is equal to or less than one person per 100 square feet of floor area or, if the number exceeds one person per 100 square feet, the machinery-containing space shall be provided with the required number of doors opening directly into approved building exits; and
4. Detectors are located in areas where refrigerant vapor from a leak will concentrate so as to provide warning at levels not exceeding the TLV-TWA quantities given in Table 1104.1. Otherwise, the footnotes for other occupancies shall apply.

Exception: For ammonia, see Section 1106.8.

^dWhen the quantity of refrigerant in the largest system exceeds the amounts in Table 1104.1, all refrigerant-containing parts, except piping and those parts outside the building, shall be installed in a machinery room meeting the general requirement of Section 1105.

^eRefrigerant amounts and types of systems shall be limited as shown in Table 1104.2(2).

^fApplications involving air conditioning for human comfort are prohibited.

^gWhen the quantity of refrigerant in the largest system exceeds the amounts in Table 1104.1, all refrigerant-containing parts, except piping and those parts outside the building, shall be installed in a special requirements machinery room in accordance with Section 1106 with limitations on refrigerant quantities as follows:

550 pounds — Institutional

No limit except Footnote h — Public Assembly

No limit except Footnote h — Residential

No limit except Footnote h — All other occupancies

No limit except Footnote h — Industrial

Otherwise, Footnote e applies to the amount of Group A2, A3, B2 or B3 refrigerant in the system.

^hWhen the quantity of refrigerant exceeds Table 1104.1 amounts, all refrigerant-containing parts, except piping, low-side components, condensers, and parts outside the building, shall be installed in a machinery room meeting the general requirements in Section 1105. For refrigerants of Groups A2, A3, B2 and B3:

1. The machinery room shall also meet the special requirements of Section 1106.
2. Except for ammonia, amounts in excess of 1,100 pounds shall be approved by the code official.

ⁱUse of these refrigerants is prohibited, except in laboratories in commercial occupancies. Only unit systems containing not more than 6.6 pounds of Group A3 or B3 refrigerant shall be used unless the laboratory is occupied by less than one person per 100 square feet of floor area, in which case the requirements of industrial occupancies shall apply.

TABLE 1104.2(2)
MAXIMUM PERMISSIBLE QUANTITIES OF REFRIGERANTS
 [For Use With Footnote e of Table 1104.2(1)]

TYPE OF REFRIGERATION SYSTEM	MAXIMUM POUNDS FOR VARIOUS OCCUPANCIES			
	Institutional	Assembly	Residential	All Other Occupancies
Sealed Absorption System				
In exit access	0	0	3.3	3.3
In adjacent outdoor locations	0	0	22	22
In other than exit access	0	6.6	6.6	22
Unit Systems				
In other than exit access	0	0	6.6	22

For SI: 1 pound = 0.454 kg.

1104.3 Volume calculations. Volume calculations shall be in accordance with Sections 1104.3.1 through 1104.3.3.

1104.3.1 Unventilated spaces. Where the refrigerant-containing parts of a system are located in one or more unventilated spaces, the volume of the smallest, enclosed occupied space, other than a machinery room, shall be used to determine the permissible quantity of refrigerant in the system. Where a building consists of several stories of unpartitioned space, such as a mezzanine or an atrium, the story having the smallest occupied space shall be deemed to be the enclosed space.

1104.3.2 Ventilated spaces. Where an evaporator or condenser is located in an air duct system, the volume of the smallest occupied space or unpartitioned building story, served by the duct shall be used to determine the maximum allowable quantity of refrigerant in the system.

EXCEPTION: If airflow to any enclosed space cannot be reduced below one-quarter of its maximum, the entire space served by the air duct system shall be used to determine the maximum allowable quantity of refrigerant in the system.

1104.3.3 Plenums. Where the space above a suspended ceiling is continuous and part of the supply or return air plenum system, this space shall be included in calculating the volume of the enclosed space.

WAC 51-42-1105 Machinery room, general requirements.

1105.1 General. Where required by Table 1104.2(1), a machinery room shall be provided to enclose refrigeration systems located indoors. Access to the machinery room shall be restricted to authorized personnel. For rooms where occupational exposure could occur, see WAC 296-62-07515 and 296-62-3112.

1105.2 Dimensions. A machinery room shall be dimensioned so as to provide clearances required by Chapter 3. There shall be clear head room of not less than 7 feet 3 inches (2210 mm) below equipment located over passageways.

1105.3 Doors. Each machinery room shall have self-closing, weather-stripped doors opening in the direction of egress travel. Doors and door openings shall comply with the requirements of the Building Code.

1105.4 Openings. Openings to other parts of the building that permit passage of escaping refrigerant to other parts of the building are prohibited. Ducts and air handlers in the machinery room that operate at a lower pressure than the room shall be sealed to prevent any refrigerant leakage from entering the airstream.

- EXCEPTIONS:
1. Egress doors serving the machinery room.
 2. Access doors and panels in air ducts and air-handling units, provided that such openings are gasketed and tight fitting.

1105.5 Refrigerant vapor detector. Machinery rooms shall contain a refrigerant vapor detector with an audible and visual alarm. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant vapor from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values shown in Table 1104.1. Detectors and alarms shall be placed in approved locations. Detection and alarm systems shall be powered and supervised, monitored and annunciated, and installed and maintained as required by Section 6313 of the Fire Code.

- EXCEPTION: Detectors are not required for ammonia systems complying with Section 1106.8.

1105.6 Tests. Periodic tests of the detector, alarm and mechanical ventilating system shall be performed in accordance with manufacturer's specifications and as required by the code official.

1105.7 Fuel-burning equipment. Open flames that use combustion air from the machinery room shall not be installed in a machinery room.

- EXCEPTIONS:
1. Matches, lighters, halide leak detectors and similar devices.
 2. Where the refrigerant is carbon dioxide or water.
 3. Fuel-burning equipment shall not be prohibited in the same machinery room with refrigerant-containing equipment where combustion air is ducted from outside the machinery room and sealed in such a manner as to prevent any refrigerant leakage from entering the combustion chamber, or where a refrigerant vapor detector is employed to automatically shut off the combustion process in the event of refrigerant leakage.

1105.8 Sign. A sign shall be posted on the machinery room door prohibiting access of unauthorized personnel.

1105.9 Ventilation. Machinery rooms shall be mechanically ventilated to the outdoors. Mechanical ventilation shall be capable of exhausting the minimum quantity of air both at the normal operating and emergency conditions. Multiple fans or multispeed fans shall be allowed in order to produce the emergency

ventilation and to obtain a reduced airflow for normal ventilation. Fans providing refrigeration machinery room temperature control or automatic response to refrigerant vapor are allowed to be automatically controlled to provide intermittent ventilation as conditions require.

EXCEPTION: Where a refrigerating system is located outdoors more than 20 feet (6096 mm) from any building opening and is enclosed by a penthouse, lean-to or other open structure, natural or mechanical ventilation shall be provided. Location of the openings shall be based on the relative density of the refrigerant to air. The free-aperture cross section for the ventilation of the machinery room shall be not less than:

$$F = \sqrt{G}$$

For SI: $F = 0.138\sqrt{G}$

where:

F = the free opening area in square feet (m^2).

G = the mass of refrigerant in pounds (kg) in the largest system, any part of which is located in the machinery room.

1105.9.1 Discharge location. The discharge of the air shall be to the outdoors in accordance with Chapter 5. Exhaust from mechanical ventilation systems shall be discharged not less than 20 feet (6096 mm) from a property line or openings into buildings.

1105.9.2 Supply air. Provisions shall be made for supply air to replace that being exhausted. Openings for supply air shall be located to avoid intake of exhaust air. Air supply and exhaust ducts to the machinery room shall serve no other area, shall be constructed in accordance with Chapter 5 and shall be covered with corrosion-resistant screen of not less than 1/4 inch (6.4 mm) mesh. The supply air shall be taken from directly outside the building. Intakes shall be fitted with backdraft dampers or similar approved flow control means to prevent reverse flow.

1105.9.3 Quantity--normal ventilation. During occupied conditions the mechanical ventilation system shall exhaust the larger of the following:

1. Not less than 0.5 cfm per square foot ($0.0025 m^3/s \cdot m^2$) of machinery room area or 20 cfm ($0.009 m^3/s$) per person; or
2. A volume required to maintain a maximum temperature rise of $18^\circ F$ ($-7.8^\circ C$) based on all of the heat-producing machinery in the room.

1105.9.4 Quantity--emergency conditions. Upon actuation of the refrigerant detector required in Section 1105.5, the mechanical ventilation system shall exhaust air from the machinery room in the following quantity:

$$Q = 100 \times \sqrt{G}$$

For SI: $Q = 0.07 \times \sqrt{G}$

where:

Q = the airflow in cubic feet per minute (m^3/s).

G = the design mass of refrigerant in pounds (kg) in the largest system, any part of which is located in the machinery room.

1105.10 Termination of relief devices. In the equipment room, pressure relief devices, fusible plugs and purge systems shall terminate outside of the structure at a location not less than 15 feet (4572 mm) above the adjoining grade level and not less than 20 feet (6096 mm) from any window, ventilation opening or exit.

NEW SECTION

WAC 51-42-1106 Machinery room, special requirements.

1106.1 General. Where required by Table 1104.2(1), the machinery room shall meet the requirements of this section in addition to the requirements of Section 1105.

1106.2 Elevated temperature. There shall not be an open flame-producing device or continuously operating hot surface over 800°F (427°C) permanently installed in the room.

1106.3 Construction requirements. The machinery room shall be separated from other occupied space with smoke-tight, 1-hour fire-resistance-rated construction.

1106.4 Opening protectives. Opening protection between the machinery room and other occupied spaces shall be approved, self-closing, tight-fitting fire doors with a minimum fire-resistance-rating of 3/4 hour.

1106.5 Pipe penetrations. All pipe penetrations of the interior walls, ceiling or floor of machinery rooms shall be sealed vapor tight and protected in accordance with the Building Code.

1106.6 Exterior openings. Openings in exterior walls of machinery rooms shall not be located under any exit, stairway or exit discharge.

1106.7 Egress. Means of egress shall comply with Section 1007.7 of the Building Code.

Each machinery room shall be provided with a minimum of one exit door that opens directly to the outside.

- EXCEPTION:
1. Self-closing, tight-fitting doors opening into a vestibule leading directly outside.
 2. Existing machinery rooms.

1106.8 Ammonia room ventilation. Ventilation equipment in ammonia machinery rooms shall be operated continuously.

- EXCEPTIONS:
1. Machinery rooms equipped with a refrigerant vapor detector that will automatically start the ventilation system and actuate an alarm at a detection level not to exceed 1,000 ppm; or
 2. Machinery rooms conforming to the Class 1, Division 2, hazardous location classification requirements of NFPA 70.

1106.9 Flammable refrigerants. Where refrigerants of Groups A2, A3, B2 and B3 are used, the machinery room shall conform to the Class 1, Division 2, hazardous location classification requirements of NFPA 70.

EXCEPTION: Ammonia machinery rooms.

1106.10 Remote controls. Remote control of the mechanical equipment located in the machinery room shall be provided at an approved location immediately outside the machinery room and adjacent to its principal entrance.

1106.10.1 Refrigeration system. A clearly identified switch of the break-glass-type shall provide off-only control of all electrically energized equipment in the machinery room, other than the refrigerant leak detectors and machinery room ventilation.

1106.10.2 Ventilation system. Mechanical ventilation systems shall have switches to control power to each fan. The switches shall be key operated or within a locked glass-covered enclosure at an approved location adjacent to and outside of the principal entrance to the machinery room. Necessary keys shall be located in a single approved location. Switches controlling fans providing intermittent or emergency ventilation shall be of the three-position, automatic/on/off type. Switches shall be labeled identifying both function and specific fan controlled. Two-colored and labeled indicator lamps responding to the differential pressure created by the air flow shall be provided for each switch. One lamp shall indicate flow, the other shall indicate no flow.

1106.10.3 Emergency control box. An emergency control box shall be provided as required by IIAR 2-1992 Section 5.4. Emergency control boxes shall be designed and constructed to the standards of IIAR 2-1992 Appendix A except as modified by Section 6307 of the Fire Code.

NEW SECTION

WAC 51-42-1107 Refrigerant piping.

1107.1 General. All refrigerant piping shall be installed, tested and placed in operation in accordance with this chapter.

1107.2 Pipe enclosures. Rigid or flexible metal enclosures or pipe ducts shall be provided for soft, annealed copper tubing and used for refrigerant piping erected on the premises and containing other than Group A1 or B1 refrigerants. Enclosures shall not be required for connections between condensing units and the nearest riser box(es), provided such connections do not exceed 6 feet (1829 mm) in length.

1107.3 Condensation. All refrigerating piping and fittings, brine piping and fittings that, during normal operation, will reach a surface temperature below the dew point of the surrounding air, and are located in spaces or areas where condensation will cause a safety hazard to the building occupants, structure, electrical equipment or any other equipment, shall be protected in an approved manner to prevent such damage.

1107.4 Materials for refrigerant pipe and tubing. Piping materials shall be as set forth in Sections 1107.4.1 through 1107.4.5.

1107.4.1 Steel pipe. Carbon steel pipe with a wall thickness not less than Schedule 80 shall be used for Group A2, A3, B2 or B3 refrigerant liquid lines for sizes 1 1/2 inches (38 mm) and smaller. Carbon steel pipe with a wall thickness not less than Schedule 40 shall be used for Group A1 or B1 refrigerant liquid lines 6 inches (152 mm) and smaller, Group A2, A3, B2 or B3 refrigerant liquid lines sizes 2 inches (51 mm) through 6 inches (152 mm), and all refrigerant suction and discharge lines 6 inches (152 mm) and smaller. Type F steel pipe shall not be used for refrigerant lines having an operating temperature less than -20°F (-29°C).

1107.4.2 Copper and brass pipe. Standard iron-pipe size, copper and red brass (not less than 80 percent copper) pipe shall conform to ASTM B 42 and ASTM B 43.

1107.4.3 Copper tube. Copper tube used for refrigerant piping erected on the premises shall be seamless copper tube of Type ACR (hard or annealed) complying with ASTM B 280. Where approved, copper tube for refrigerant piping erected on the premises shall be seamless copper tube of Type K, L or M (drawn or annealed) in accordance with ASTM B 88. Annealed temper copper tube shall not be used in sizes larger than a 2-inch (51 mm) nominal size. Mechanical joints shall not be used on annealed temper copper tube in sizes larger than 7/8-inch (22 mm) OD size.

1107.4.4 Copper tube joints. Copper tubing joints used in refrigerating systems containing Group A2, A3, B2 or B3 refrigerants shall be brazed. Soldered joints shall not be used in such refrigerating systems.

1107.4.5 Aluminum tube. Type 3003-0 aluminum tubing with high-pressure fittings shall not be used with methyl chloride and other refrigerants known to attack aluminum.

1107.5 Joints and refrigerant-containing parts in air ducts. Joints and all refrigerant-containing parts of a refrigerating system located in an air duct of an air-conditioning system carrying conditioned air to and from humanly occupied space shall be constructed to withstand, without leakage, a pressure of 150 percent of the higher of the design pressure or pressure relief device setting.

1107.6 Exposure of refrigerant pipe joints. Refrigerant pipe joints erected on the premises shall be exposed for visual inspection prior to being covered or enclosed.

1107.7 Stop valves. All systems containing more than 6.6 pounds (3 kg) of a refrigerant in systems using positive-displacement compressors, shall have stop valves installed as follows:

1. At the inlet of each compressor, compressor unit or condensing unit.
2. At the discharge outlet of each compressor, compressor unit or condensing unit and of each liquid receiver.

- EXCEPTIONS:
1. Systems that have a refrigerant pumpout function capable of storing the entire refrigerant charge in a receiver or heat exchanger.
 2. Systems that are equipped with provisions for pumpout of the refrigerant using either portable or permanently installed recovery equipment.
 3. Self-contained systems.

1107.7.1 Liquid receivers. All systems containing 100 pounds (45 kg) or more of a refrigerant, other than systems utilizing nonpositive displacement compressors, shall have stop valves, in addition to those required by Section 1107.7, on each inlet of each liquid receiver. Stop valves shall not be required on the inlet of a receiver in a condensing unit, nor on the inlet of a receiver which is an integral part of the condenser.

1107.7.2 Copper tubing. Stop valves used with soft annealed copper tubing or hard-drawn copper tubing 7/8-inch (22 mm) OD standard size or smaller shall be securely mounted, independent of tubing fastenings or supports.

1107.7.3 Identification. Stop valves shall be identified where their intended purpose is not obvious. Numbers shall not be used to label the valves, unless a key to the numbers is located near the valves.

NEW SECTION

WAC 51-42-1108 Field test.

1108.1 General. Every refrigerant-containing part of every system that is erected on the premises, except compressors, condensers, vessels, evaporators, safety devices, pressure gauges and control mechanisms that are listed and factory tested, shall be tested and proved tight after complete installation, and before operation. Tests shall include both the high- and low-pressure sides of each system at not less than the lower of the design pressures or the setting of the pressure-relief device(s). The design pressures for testing shall be those listed on the condensing unit, compressor or compressor unit nameplate, as required by ASHRAE 15-1994.

- EXCEPTIONS:
1. Gas bulk storage tanks that are not permanently connected to a refrigeration system.
 2. Systems erected on the premises with copper tubing not exceeding 5/8-inch (16 mm) OD, with wall thickness as required by ASHRAE 15-1994, shall be tested in accordance with Section 1108.1, or by means of refrigerant charged into the system at the saturated vapor pressure of the refrigerant at 70°F (21°C) or higher.
 3. Limited-charge systems equipped with a pressure relief device, erected on the premises, shall be tested at a pressure not less than one and one-half times the pressure setting of the relief device. If the equipment has been tested by the manufacturer at one and one-half times the design pressure, the test after erection on the premises shall be conducted at the design pressure.
 4. Where a compressor is used as a booster to obtain an intermediate pressure and discharges into the suction side of another compressor, the booster compressor shall be considered a part of the low side, provided that it is protected by a pressure relief device.
 5. In field-testing systems using centrifugal or other nonpositive displacement compressors, the entire system shall be considered as the low-side pressure for field test purposes.

1108.2 Test gases. Tests shall be performed with an inert dried gas including, but not limited to, nitrogen or carbon dioxide. Oxygen, air, toxic or combustible gases, and mixtures containing such gases, shall not be used.

1108.3 Test apparatus. The means used to build up the test pressure shall have either a pressure-limiting device or a pressure-reducing device and a gauge on the outlet side.

1108.4 Declaration. A certificate of test shall be provided for all systems containing 55 pounds (25 kg) or more of refrigerant. The certificate shall give the name of the refrigerant and the field test pressure applied to the high side and the low side of the system. The certification of test shall be signed by the installer and shall be made part of the public record.

NEW SECTION

WAC 51-42-1311 Material for gas piping.

1311.1 General. Pipe and tubing used for the installation, extension, alteration or repair of gas piping shall be standard weight wrought iron or steel (galvanized or black), yellow brass, seamless copper tubing, threaded copper, brass, internally tinned copper tubing, or listed Corrugated Stainless Steel Tubing (CSST). Seamless copper tubing may be used for gas piping provided that it conforms with ASTM B 88 (Type K or Type L), ASTM B 280 (Type ACR), or ASTM B 837 (Type G). Copper tubing, copper and brass pipe shall not be used if the gas contains more than an average of 0.3 grains of hydrogen sulfide per 100 standard cubic feet of gas. CSST may be permitted provided that it is part of a system listed by an approved agency as complying with the reference standard listed in Chapter 16, Part III. Approved PE pipe may be used in exterior buried piping systems.

1311.3 Fittings. All fittings shall be approved for gas piping systems. The fittings shall be compatible with or shall be of the same material as the pipe or tubing. Fittings used in connection with the piping shall be of malleable iron, brass, bronze, copper, or approved plastic fittings. All fittings and components used with Corrugated Stainless Steel Tubing (CSST) shall be of the same listed system. Fittings used with copper or brass pipe shall be copper, brass, bronze or 45 degree flare fittings.

NEW SECTION

WAC 51-42-1312 Installation of gas piping.

1312.1 Joints. Joints in the piping system, unless welded, brazed or flared, shall be threaded joints having approved standard threads. The threaded joints shall be made with approved pipe joint material, insoluble in fuel gas and applied to the male

threads only. Welded joints in a gas-supply system shall be made by an approved, qualified welder. See Section 203. Brazing material shall have a melting point in excess of 1,000°F (520°C) and shall not contain more than 0.05 percent phosphorous.

1312.3 Piping through foundation wall. Underground piping, where installed below grade through the outer foundation or basement wall of a building, shall be encased in a protective pipe. The annular space between the gas piping and the sleeve shall be sealed at the foundation or basement wall to prevent entry of gas or water.

Existing walls shall be core drilled and sealed with an approved mechanical seal.

1312.6 Corrosion and covering protection. Metallic gas piping systems installed underground in exterior locations shall be protected from corrosion by approved coatings or wrapping materials applied in an approved manner, and cathodically protected in accordance with NACE RP-01-69. Horizontal metallic piping shall have at least 12 inches (305 mm) of earth cover or equivalent protection. Plastic gas piping shall have at least 18 inches (457 mm) of earth cover or equivalent protection. Risers, including prefabricated risers inserted with plastic pipe, shall be metallic and shall be protected in an approved manner to a point at least 6 inches (152 mm) above grade. When a riser connects to plastic pipe underground, the horizontal metallic portion underground shall be at least 30 inches (762 mm) in length before connecting to the plastic service pipe. An approved transition fitting or adaptor shall be used where the plastic joins the metallic riser.

EXCEPTION: Listed one-piece 90-degree transition fittings or risers may have less than 30 inches (762 mm) of horizontal metallic piping.

1312.7 Electrical isolation of fuel gas piping. Underground metallic gas piping systems shall be electrically isolated from other metallic structures or utilities with listed or approved isolation fittings installed a minimum of 6 inches (152 mm) above grade.

1312.17 Directional changes. Changes in direction of gas piping shall be made by use of appropriate fittings, except copper tubing, which may change direction by bending, and polyethylene gas piping and tubing, which may be bent to a radius not less than 20 times the nominal diameter of the pipe or tube.

1312.18 Marking and labeling. Copper tubing carrying fuel gas shall be identified by yellow labels marked in black letters, "Fuel Gas", or "2 PSIG Fuel Gas" for medium pressure gas piping systems carrying fuel gas at 2 PSIG pressure. Labels shall be affixed to the tubing at 12-inch (305 mm) intervals or less throughout the length of the tubing runs.

NEW SECTION

WAC 51-42-1401 Oil-burning appliances.

1401 Oil-burning appliances.

Tanks, piping and valves for appliances burning fuel oil shall be installed in accordance with the requirements of recognized standards listed in Part III of Chapter 16.

Fuel tanks and fuel tank systems shall be taken out of service in accordance with the Fire Code.