RESOLUTION NO. 589

A RESOLUTION OF THE CITY OF WILSONVILLE CITY COUNCIL APPROVING AS TO FORM THE TUALATIN RURAL FIRE PROTECTION DISTRICT FIRE CODE.

WHEREAS, the City Council has received and reviewed the proposed Tualatin Rural Fire Protection District Code; and

WHEREAS, the City Council feels there is a need to approve the fire code to prescribe regulations governing conditions hazardous to life and property from fire or explosion.

NOW, THEREFORE, BE IT RESOLVED BY THE WILSONVILLE CITY COUNCIL THAT:

Section 1. The Tualatin Rural Fire Protection District proposed Fire Code be approved as set forth in Exhibit "A", which by this reference is made a part hereof.

ADOPTED by the Wilsonville City Council at a regular meeting thereof this 3rd day of November, 1986, and filed with the Wilsonville City Recorder this same date.

A. G. MEYER, Mayor

ATTEST:

VERA A. ROJAS, City Recorder

City of Wilsonville

COMMUNITY DEVELOPMENT DEPARTMENT

Memorandum

October 29, 1986

TO: Mayor and City Council

FROM Martin Brown, Building Inspector/Plans Examiner MB

SUBJECT: TUALATIN RURAL FIRE PROTECTION DISTRICT FIRE PREVENTION ORDINANCE

The Fire Prevention Ordinance as submitted by the Tualatin Rural Fire Protection District will, among other things, provide for maintenance inspections of existing commercial occupancies. It will also govern the installation standards for fuel pumping stations and liquid petroleum tanks.

The contents of the ordinance was reviewed by legal counsel and revised as requested by Mr. Kohlhoff. I feel the ordinance is workable and justifiable for providing the minimum safeguards for safety and welfare and recommend its adoption.

MB:sr

Tualatin Fire District
P.O. BOX 127 • TUALATIN, OREGON 97062 • PHONE 682-2601

FIRE PREVENTION ORDINANCE

1986

RESOLUTION 86-5

AN ORDINANCE ADOPTING FIRE CODES AND STANDARDS PRESCRIBING REGULATIONS GOVERNING CONDITIONS HAZARDOUS TO LIFE AND PROPERTY FROM FIRE OR EXPLOSION, PROVIDING FOR THE ISSUANCE OF PERMITS FOR HAZARDOUS USES OR OPERATIONS, AND ESTABLISHING A BUREAU OF FIRE PREVENTION AND PROVIDING OFFICERS THEREFORE AND DEFINING THEIR POWERS AND DUTIES, AND REPEALING ORDINANCE(s) Resolution 84-4

WHEREAS, the Tualatin Rural Fire Protection District, pursuant to the authority granted under ORS 198.510 to ORS 198.600 and ORS 478.910 to ORS 478.940, has the power to adopt a fire prevention code.

WHEREAS, the Tualatin Rural Fire Protection District desires to and finds it necessary to adopt the following regulations to provide maximum fire safety and that a plan for inspections and maintenance will upgrade existing structures, thereby reducing hazards of fire, thus does hereby adopt the following regulations.

The whole of this ordinance including the Codes hereby adopted have been and are now filed in the record of the District and in the Office of the County Clerk as prescribed in ORS 478.560 and with the State Fire Marshal's Office and from the date on which this ordinance shall take effect, the provisions thereof shall be controlling within the limits of the area known as the District and the whole of this ordinance shall be known as the Fire Prevention Code of the Tualatin Rural Fire Protection District.

SECTION I ADOPTION OF UNIFORM CODES AND STANDARDS

There is hereby adopted by the District for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, those certain Codes and Standards known as the:

A. Uniform Fire Code, including Appendix Chapters and Uniform Fire Code Standards, 1985 Editions, published by the Western Fire Chiefs Association and the International Conference of Building Officials, save and except for portions as are hereinafter deleted, modified or amended by Section VII of this Ordinance.

B. Uniform Building Code, including Appendix Chapters and Uniform Building Code Standards, 1985 Editions, published by the International Conference of Building officials, save and except for portions as are hereinafter deleted, modified or amended by Section VIII of this Ordinance.

C. Uniform Mechanical Code, including Appendix Chapters and Uniform Mechanical Code Standards, 1985 Editions, published by the Inter-Conference of Building Officials and the International Association of Plumbing and Mechanical Officials, save and except for portions as are hereinafter deleted, modified or amended by Section IX of this Ordinance.

SECTION II ESTABLISHMENT AND DUTIES OF BUREAU OF FIRE PREVENTION

A. This Ordinance shall be enforced by the Bureau of Fire Prevention in the fire department of the District, which was previously established and which shall be operated under the supervision of the Chief of the fire department.

SECTION III DEFINITIONS

Definitions set forth in the Uniform Building Code, Uniform Mechanical Code, Uniform Fire Code and the National Fire Code (N.F.P.A.) are hereby adopted save and except for the following:

A. Whenever the terms "Administrator" or "Director" are used, they shall be held to mean the Fire Chief or his authorized representative.

B. Whenever the term "Board of Appeals" is used, it shall be held to mean the Board of Appeals that is provided by the Fire Prevention Code of this fire district.

C. Whenever the term "Board of County Commissioners" or "City Council" is used it shall be held to mean the Board of Directors of The District.

D. Whenever the term "Building Code" is used it shall be held to mean whichever building code is currently in use in the particular jurisdiction served by this fire department or the particular building code or codes adopted by this District.

E. Whenever the term "Building Department" is used it shall be held to mean the Fire Prevention Division of this fire district or the building department of the City or County of which the Department is a part thereof.

F. Whenever the term "Building Official" is used, for the purpose of this ordinance, it shall be held to mean the Fire Marshal of this fire district or his authorized representative when dealing with fire and life safety issues of the adopted codes, standards and regulations. When ever the term "Building Official" is used in Uniform Building Code, Uniform Mechanical Code and ORS Chapter 456, it shall mean the Building Official of the City or County which is a part of this district.

G. Whenever the term "Chief of Bureau of Fire Prevention", "Fire Prevention Engineer", "State Fire Marshal" are used they shall be held to mean the Fire Marshal of The District or his authorized representative.

H. Whenever the term "Chief" or "Chief of the fire department" is used it shall be held to mean the Chief of The District.

I. Whenever the term "Chief of Police" is used it shall be held to mean whichever Sheriff or Chief of Police has jurisdiction within the geographical area so affected.

J. Whenever the term "District" is used, it shall be held to mean Washington County Rural Fire Protection District No. 1 or Tualatin Rural Fire Protection District, whichever is appropriate by geographic location.

K. Whenever the term "Corporation Counsel" or "City Attorney" is used it shall be held to mean the Attorney for the District, or the appropriate City Attorney, or the appropriate County District Attorney, whichever is deemed to be suitable or appropriate by the Fire Chief.

L. Whenever the term "Jurisdiction", "City, "County", "State", or "Municipiality" is used it shall be held to mean the District or the City or County of which this department is a part thereof.

M. Whenever the term "Hazardous Vehicles" is used it shall be held to mean vehicles blocking public or private right-of-way fire hydrants, vehicles with leaking gas tanks and vehicles located in violation of the fire code.

N. Whenever the term "Room" is used it shall mean a space or area bounded by any obstruction to exit passage which at any time encloses more than 80 percent of the perimeter, openings less than 3 feet in clear width and less than 5 feet 8 inches high shall not be considered.

O. Whenever the term "Light Hazard" is used it shall be held to mean occupancies or portions of other occupancies where the quantity and/or combustibility of contents is low and fires with relatively low rates of heat release are expected.

P. Whenever the term "Ordinary Hazard" (Group 1) is used it shall be held to mean occupancies or portions of other occupancies where combustibility is low, quantity of combustibles is moderate, stock piles of combustibles do not exceed 8 ft (2.4 m) and fires with moderate rates of heat release are expected.

Q. Whenever the term "Ordinary Hazard" (Group 2) is used it shall be held to mean occupancies or portions of other occupancies where quantity and combustibility of contents is moderate, stock piles do not exceed 12 ft (3.7 m) and fires with moderate rate of heat release are expected.

R. Whenever the term "Ordinary Hazard" (Group 3) is used it shall be held to mean occupancies or portions of other occupancies where quantity and/or combustibility of contents is high, and fires of high rate of heat release are expected.

S. Whenever the term "Extra Hazard" is used it shall be held to mean occupancies or portions of other occupancies where quantity and combustibility of contents is very high, and flammable and combustible liquids, dust, lint or other materials are present introducing the probability of rapidly developing fires with high rates of heat release.

Extra hazard occupancies involve a wide range of variables which may produce severe fires. The following shall be used to evaluate the severity of extra hazard occupancies:

Extra Hazard (Group 1) includes occupancies with little or no flammable or combustible liquids.

Extra Hazard (Group 2) includes occupancies with moderate to substantial amounts of flammable or combustible liquids or where shielding of combustibles is extensive.

SECTION IV ESTABLISHMENT OF LIMITS OF DISTRICTS IN WHICH STORAGE OF FLAMMABLE OR COMBUSTIBLE LIQUIDS IN OUTSIDE ABOVE-GROUND TANKS IS PROHIBITED

The limits referred to in Section 79.501 of the Uniform Fire Code relating to the storage of Class I and II flammable or combustible liquids in outside above-ground tanks, such storage is prohibited within the limits of Tualatin Rural Fire Protection District.

Exception: The Fire Marshal, after consideration of built-in fire protection and fire extinguishing facilities, topographical conditions, and the District's fire fighting capabilities may permit the installation of above-ground storage in industrial areas, farms, gravel pits, rock quarries and other isolated areas.

SECTION V ESTABLISHMENTS OF LIMITS OF DISTRICTS IN WHICH STORAGE OF EXPLOSIVES AND BLASTING AGENTS IS PROHIBITED

The limits referred to in Section 77.106(b) of the Uniform Fire Code in which the storage of explosives and blasting agents is prohibited, are within the limits of the Tualatin Rural Fire Protection District.

Exception: The Fire Marshal, after consideration of built-in fire protection and fire extinguishing facilities, topographical conditions and the district's fire fighting capabilities may permit the storage of explosives and blasting agents on farms, gravel pits, rock quarries, and other isolated areas when the storage of explosives and blasting agents meets the requirements of the fire code.

SECTION VI ESTABLISHMENTS OF LIMITS IN WHICH STORAGE OF LIQUEFIED PETROLEUM GASES IS TO BE RESTRICTED

The limits referred to in Section 82.105 of the Uniform Fire Code in which storage of liquefied petroleum gas is restricted, are hereby established as the limits of the Tualatin Rural Fire Protection District.

Exception: The Fire Marshal, after consideration of built-in fire protection and fire fighting facilities, topographical conditions, and the district's fire fighting capabilities may permit the installation of liquefied petroleum gas containers in industrial areas, farms, gravel pits, rock quarries, and other areas, and then only when approval has been obtained pursuant to Section 82.102 of the Uniform Fire Code.

SECTION VII AMENDMENTS MADE IN THE UNIFORM FIRE CODE

The Uniform Fire Code is amended and changed in the following respects:

A. Section 2.101 is amended by adding paragraphs i, j, k and l

(i) Adequacy of means of approach to buildings and structures by mobile fire apparatus, and firefighting personnel.

(j) Providing fire fighting water supplies and fire detection and suppression apparatus adequate for the protection of buildings and structures.

(k) Issuance of permits before burning trash or waste materials.

(l) Inspection of premises by officers designated by the Board of Directors and requiring removal of fire hazards found on premises at such inspections.

B. Section 2.102 is amended as follows:

The Chief, by executive order, is authorized to make, promulgate and enforce such rules and regulations for the prevention and control of fires and hazards as may be necessary from time to time to carry out the intent of this code. Certified copies of such rules and regulations shall be filed with the County Clerk and be available for public inspection pursuant to ORS 478.940, and shall be in effect immediately thereafter and additional copies shall be kept in the Fire Prevention Bureau office for distribution to the public.

C. Section 2.104 is amended as follows:

(a) The Chief (or the Fire Marshal) in charge of the Bureau of Fire Prevention shall be appointed by the appropriate authority of the District, on the basis of examination to determine his qualifications.

(b) The Chief of the fire department may detail such members of the fire department as inspectors as shall from time to time be necessary. The Chief shall recommend to the District the employment of technical inspectors who, when such authorization is made, shall be selected through an examination to determine their fitness for the position and appointments made after examination shall be for an indefinite term with removal only for cause.

D. Section 2.201(b) is amended by deleting the following words:

"in accordance with the procedure specified in Chapters 4 through 9 of the Uniform Code for the Abatement of Dangerous Buildings or by any other procedures provided by law"

E. Section 2.302 is deleted.

F. Section 2.303 is amended by adding to subsection (b):

National Fire Protection Association Standards:

NFPA 13	Installation of Sprinkler Systems	1985 Edition
NFPA 20	Centrifugal Fire Pumps	1983 Edition
NFPA 22	Water Tanks for Private Fire Protection	1984 Edition
NFPA 24	Installation of Private Fire Service Mains and their Appurtenances	1984 Edition
NFPA 70	National Electric Code	1984 Edition
NFPA 54	National Fuel Gas Code	1984 Edition

G. Section 10.207 is amended by changing paragraphs d, g, h, and j as follows:

(d) **Surface.** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall sustain a minimum wheel load of 12,500 pounds and a gross vehicle weight of 45,000 pounds and be provided with an all weather driving surface.

(g) **Turning Radius.** The turning radius of a fire apparatus road shall be not less than 45-feet at the outside edge.

(h) **Turnarounds.** All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with approved provisions for the turning around of fire apparatus by one of the following:

1. A level, circular surface having a minimum turn radius measured from centerpoint to outside edge of 45 feet.

2. A level hammerhead configured surface with each leg of the hammerhead having a minimum depth of 40 feet and a minimum width of 20 feet.

(j) **Grade.** The gradient for a fire apparatus access road shall not exceed 15 percent.

H. Section 10.208 is amended by adding:

"Apartments, Condominiums and Townhouses shall have individual address or numbers and shall be addressed or numbered consecutively."

(Note: The intent is to prevent the duplication of numbers within a complex.)

I. Article 10 is amended by adding a new section 10.210 to read as follows:

AUTHORITY TO TOW HAZARDOUS VEHICLES
Section 10.210. The Chief or other officer of the fire department may immediately cause a vehicle to be towed without prior notice at the owner's expense if the vehicle is determined to be a hazardous vehicle.

J. Section 10.301(c) is amended to read:

(c) **Water Supply.** An approved water supply capable of supplying required fire flow for fire protection shall be provided to all premises upon which buildings or portions of buildings are hereafter constructed.

Exception: Where not more than two Group R Division 3 occupancies plus two Group M occupancies are constructed or moved onto an acre or less of property or when approved by the Chief.

Fire Hydrants. Fire hydrants shall be located so that no part of the exterior walls of the first story of a commercial building is more than 250 feet from a fire hydrant. When approved by the Chief this distance may be extended to a maximum of 500 feet as measured along a route accessible to vehicles, when the building is equipped with an approved fire protection system.

For the purpose of this subsection, a "commercial building" means a building used for other than Group R Division 3 and M Occupancies.

Single and two family residential buildings shall not be more than 500 feet from a fire hydrant as measured along a route accessible to vehicles.

Fire Hydrant Placement. Fire hydrants shall be placed at intersection unless authorized by the Chief.

Fire hydrants on private water mains that are serving automatic sprinkler systems and are pressurized by a fire department connection shall not be considered to contribute to the above requirements unless specifically approved by the Chief.

Fire Department Connections. When structures are protected by automatic sprinklers, fire department connections shall be within seventy (70) feet of an approved fire hydrant assembly unless otherwise approved by the Chief.

Required Fire Flow. No building shall be constructed, altered, enlarged, or repaired in a manner that by reason of size, type of construction, number of stories, location on property, occupancy, or any combination thereof which creates a need for a fire flow in excess of 3000 gallons per minute at 20 pounds per square inch residual pressure.

Existing buildings that require a fire flow in excess of 3000 gallons per minute are not required to comply with the fire flow requirements of this section; however, alterations, additions or repairs shall not further increase the required fire flow for the buildings. Furthermore, if alterations, additions, or repairs made in any 12 month period exceed fifty percent (50%) of the area of the building, the entire building shall be made to conform with the fire flow requirements.

Water supply may consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of supplying the required fire flow. In setting the rquirements for fire flow, the following shall be used:

The Required Fire Flow shall be determined by the size, construction, and occupancy of the building being considered and shall be computed as follows:

1. Determine the base fire flow by the following formula:

$$F=18C(A)^{0.5}$$

Where:

F= the required Base Fire Flow in GPM

C= Coefficient related to the type of construction as follows:

1.5 for Type V construction
1.0 for Type III construction
0.9 for Type IV construction
0.8 for Type II-N and II-one hour construction
0.6 for Type II-FR and I construction

A= The total floor area, including all occupied floors except a basement. In Type I and II FR construction only, the largest three consecutive adjacent floors only need be used.

2. Occupancy Fire Flow charges shall be multiplied by Base Fire Flow by the following combustibility factors.

Light Hazard Occupancies	1.00
Ordinary Hazard (Group 1)	1.10
Ordinary Hazard (Group 2)	1.20
Ordinary Hazard (Group 3)	1.30
Extra Hazard (Group 1)	1.40
Extra Hazard (Group 2)	1.50

Note: Examples of hazards may be found in National Fire Protection Standard 13 Standard for the Installation of Sprinkler Systems Appendix "A"

3. The product of the above multiplication gives the Required Fire Flow.

4. Required Fire Flow may be reduced by one of the following:

(a) by 100% provided buildings are constructed in compliance with Uniform Building Code (as amended in Section VIII of this Ordinance). Section 505(e)1 exception a through f and 506(b) first paragraph and the automatic sprinkler system(s) is fully and electrically supervised in accordance with NFPA Standard No. 72-A, 1985 Edition Standard for the Installation, Maintenance and Use of Local Protective Signaling systems for Guard's Tour, Fire Alarm and Supervisory Service which is hereby adopted and by this reference becomes a part of an approved central station meeting the requirements of NFPA Standard No. 71, 1982 Edition Standard for the Installation, Maintenance, and Use of Central Station Signaling Systems which is hereby adopted and by this reference becomes a part hereof.

(b) by 75 percent where a complete automatic fire extinguishing system meeting the requirements of the Uniform Building Code, Chapter 38, is installed throughout the building and the system is fully and electrically supervised in accordance with NFPA Standard No. 72-A, 1985 Edition Standard for the Installation, Maintenance and Use of Local Protective Signaling Systems for Guard's Tour, Fire Alarm and Supervisory Service which is hereby adopted and by this reference becomes a part of an approved central station meeting the requirements of NFPA Standard No. 71, 1982 Edition Standard for the Installation, Maintenance, and Use of Central Station Signaling Systems which is hereby adopted and by this reference becomes a part hereof.

(c) by 60 percent where a complete automatic fire extinguishing system meeting the requirements of Uniform Building Code, Chapter 38, is installed throughout the building and the system is fully and electrically supervised in accordance with NFPA Standard No. 72-A, 1985 Edition Standard for the Installation, Maintenance and Use of Local Protective Signaling Systems for Guard's Tour, Fire Alarm and Supervisory Service which is hereby adopted and by this reference becomes a part of hereof.

(d) by 50 percent where a complete automatic fire extinguishing system meeting the requirements of Uniform Building Code, Chapter 38, is installed throughout the building.

(e) by 25 percent wherein an approved complete smoke sensing fire detection and manual fire alarm system is installed throughout the building and electrically supervised by an approved central station. The smoke detection and manual fire alarm systems shall meet the requirements of NFPA Standards No. 72-E, 1984 Edition Standard on Automatic Fire Detectors which is hereby adopted and by this reference becomes a part of hereof and 72-A respectively. The central station shall meet the requirements of NFPA Standard No. 71.

(f) by subdividing the structure into separate buildings with fire resistive area separation walls as specified in Uniform Building Code, Section 505(e).

The water supply must be capable of providing the prescribed fire flow for the duration of 3 hours except that where the required fire flow is determined to be 2,500 gallons per minute or less, the duration of flows shall be not less than 2 hours.

All systems or appliances required by this section shall be installed by the developer and shall be approved by and meet the specifications and requirements of the Chief as to location, size and type of materials and manner of installation.

DELETED>

~~K. Article 10 Section 10.308 is amended by adding a new sub-section to read as follows:~~

~~(h) Group R Division 1 Occupancies. An automatic fire extinguishing system shall be installed in all Group R Division 1 occupancies more than 3 stories in height.~~

L. Section 45.702 is amended to read:

All spraying operations involving the use of organic peroxides and other dual-component coatings shall be conducted in approved rooms provided with automatic fire protection which shall include but shall not be limited to automatic sprinkler systems, automatic dry chemical systems, automatic carbon dioxide flooding systems, automatic halon extinguishing systems, and automatic foam extinguishing systems. In addition, an approved means for prompt notification of fire to those within the plant and the fire department shall be provided.

M. Article 78 is rescinded and replaced herein with ORS 480.110 through 480.199 and OAR Chapter 837 Division 12, retaining only Section 78.106, Seizure of Fireworks.

N. Section 82.102 is amended as to read:

For a permit to install or maintain an LP-gas container see ORS 480.450(1). For a permit to operate and inspect LP-gas vehicles see ORS 480.440.

O. Section 82.103 is amended to read:

It shall be the duty of the Fire Marshal to inspect a reasonable number of liquefied petroleum gas installations to determine if compliance is being made with the provisions of ORS 480.450(2), (3) and (5). (Note: Reasonable shall be a random sampling of those installed.)

P. Section 82.104 is amended to read:

All liquefied petroleum gas equipment including such equipment installed at utility gas plants shall be installed in accordance with the provisions of ORS 480.420(2).

Q. Appendix Chapter I-A, I-B, II-A, II-B, II-C, III-B, IV-A, and VI-B are deleted.

SECTION VIII AMENDMENTS MADE TO THE UNIFORM BUILDING CODE

The Uniform Building Code is amended and changed in the following respects:

A. Chapters 23, 24, 25 (except section 2516(f)), 26, 27, 28, 29, 30, 31, 34, 35, 41, 50, 51, 53 (except section 5303(a)3), 54, 55, 56, 57, 59, Appendix Chapters 1, 2, 11, 12, 23, 35, 38, 49, 51, 53, and 57, 70 are hereby deleted.

B. Sections, subsections, and tables 204, 205, 510, 511, Table 5-E, 605, 705 first, third, fourth, fifth, sixth, and seventh paragraphs, 805, 905 first, fourth, fifth and sixth paragraphs, 1005, 1205, 1211, 1213, 1707, 1802, 1902, 2002, 2102, 2202, 3202(a), 3205(c), 3207, 3208, 4007, 4503, 4712, and 4713 are hereby deleted.

C. Section 104(f) is amended by adding:

4. The Building Official seeks the advice of the State of Oregon Historic Preservation Officer.

In case of appeals related to historic buildings, the local Appeals Board or the appropriate State Appeals Board shall seek the advice of the State Historic Preservation Officer.

D. Section 203 is amended by deleting the following:

"structurally unsafe or" from the first sentence of the first paragraph.

and

"in accordance with the procedures set forth in the Dangerous Buildings Code or such alternate procedures, as may have been or as may be adopted by this jurisdiction" from the first sentence of the second paragraph.

E. Chapter 3 is amended to read as follows:

Permits
Section 301. (a) **Permits Required.** Except as specified in subsection (b) of this section, no building or structure regulated by the district pursuant to ORS 478.910 et seq. shall be erected, constructed, enlarged, altered or converted unless approval has been obtained from the Fire Marshal and a permit is obtained from the Building Department of the jurisdiction where said work is to be executed.

(b) **Exempted Work.** Approval shall not be required for the following:

1. Painting, papering and similar finish work.

2. Repairs in conjunction with the normal use and occupancy of a building or structure.

3. Movable partitions not over five (5) feet in height.

4. Temporary motion picture, television and theater stage sets and scenery.

Exemption from the approval requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

Application for Permits
Section 302. (a) **Application.** To obtain approval an applicant shall first file for a building permit with the Building Official within whose jurisdiction the building project is located. Every application shall provide the information required by the Building Official.

(b) **Plans and Specifications.** Plans, engineering calculations, diagrams and other data shall be submitted in at least three (3) sets with each application for a building permit.

(c) **Information on Plans and Specifications.** Plans and specifications shall be drawn to scale upon substantial paper or cloth and be of sufficient clarity to indicate the location, nature and extent of work proposed and shown in detail that it will conform to the provisions of all relevant laws, ordinances, rules and regulations.

Plans for buildings shall indicate how required fire resistive integrity will be maintained when a penetration will be made for electrical, mechanical, plumbing and communication conduits, pipes and similar systems.

Permit Issuance

Section 303. (a) **Issuance.** Plans, drawings, specifications, computations and all other pertinent data filed with the application for a building permit with a Building Official shall be reviewed by the Fire Marshal or his authorized representative. If the Fire Marshal or his authorized representative finds that the plans, drawings, specifications, computations and other date conforms with the requirements of applicable laws, rules and regulations relating to fire safety, he shall endorse in writing or stamp the plans "APPROVED". Such approved plans and specifications shall not be changed, modified or altered without authorization of the Fire Marshal or his authorized representative and all work shall be done in accordance with the approved plans.

(b) **Retention of Plans.** One set of approved plans, specifications and computations shall be kept on the project site throughout all phases of construction and at all times during which the work authorized thereby is in progress and shall be made available to building and fire inspectors for reference during required construction inspections.

(c) **Validity of permit.** The issuance or granting of a permit or approval of plans, specifications and computations shall not be construed to be a permit for or an approval of any violation of any of the provisions of the fire safety regulations of the district. No permit or approval presuming to give authority to violate or cancel the provisions of the regulations of the district shall be valid.

Issuance of a permit or approval based upon plans, specifications and other data shall not prevent the Fire Marshal or his authorized representative from thereafter requiring the correction of errors in said plans, specifications and other data, or from preventing building operations being carried on thereunder when in violation of said regulations or of any other ordinance of the district.

(d) **Expiration.** Approvals of plans issued by the Fire Marshal or his authorized representative under the provisions of these regulations shall expire by limitation and shall become null and void if the construction, building or work authorized by such approval is not commenced within 180 days from the date of the issuance of such approval, or if the construction, building or work authorized by such approval is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work can be recommenced, a new approval shall be first obtained and a fee shall be paid equal to one-half the amount required for the original plans review fee for such work, provided no changes have been made or will be made in the original plans and specifications for such work; and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on an approval after expiration, the permits shall pay a new full plans examination fee.

Any permitee holding an unexpired approval may apply for an extension of the time within which he may commence work when he is unable to commence work within the time required by this section for good and satisfactory reasons. The Fire Marshal or his authorized representative may extend the time for action by the permitee for a period not exceeding 180 days upon written request by the permitee showing that circumstances beyond the control of the permitee have prevented action from being taken. No plan approval shall be extended more than once.

(e) **Suspension or Revocation.** The Fire Marshal or his authorized representative may, in writing, suspend or revoke an approval issued under the provisions of this code whenever the permit is issued in error or on the basis of incorrect information supplied, or in violation of any ordinance or regulation or any of the provisions of this code.

Fees

Section 304. (a) **General.** In order to assist in defraying expenses in examination of construction plans and subsequent on-site inspection of actual construction, fire code review fees shall be paid at the time the application for a building permit is filed with the county or municipality in which the construction, building or work is proposed. The fee shall consist of 40% of the building permit fee. All monies collected under this section shall be paid to Tualatin Rural Fire District by the county or municipality in which the construction, building or work is proposed on or before the 10th day of the month following the month in which the monies are collected save for any expenses incurred in the collection thereof.

(b) Where plans are incomplete or changed so as to require an additional plan review, an additional fire code review fee shall be charged.

(c) Where construction, building or work approved by the Fire Marshal or his authorized representative and for which the fire code review fee has been paid has not commenced within 180 days following the date of the application for a building permit and for which the building official has not extended the time for action, the approval of the Fire Marshal or his authorized representative shall expire and all fees shall be forfeit. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new fire code review fee.

(d) **Investigation Fees: Work Without a Permit.** 1. **Investigation.** Wherever any work for which a permit is required within any county or municipality within Tualatin Rural Fire Protection District has commenced without first obtaining said permit, a special investigation shall be made.

2. **Fee.** An investigation fee, in addition to the plan examination fee, shall be collected whether or not a permit is subsequently issued. The Investigation fee shall be equal to the amount of the fire code review fee. The payment of the investigation fee shall not exempt any person from compliance with all other provisions of the fire code regulations nor from any penalty prescribed by law.

(e) **Fee Refunds.** 1. The Fire Marshal or his authorized representative may permit the refunding of any fee paid pursuant to this section which was erroneously paid or collected.

2. The Fire Marshal or his authorized representative may permit the refunding of not more than 80 percent of the fire code review fee which was paid with the application for a building permit when the application is withdrawn or cancelled before any reviewing has been done.

Inspections

Section 305. General. All construction, building or work for which a fire code review has been made shall be subject to inspection by the Fire Marshal or his authorized representative and certain types of construction shall have continuous inspection by special inspectors as specified in Section 306.

It shall be the duty of the building permitee to cause the work to be accessible and exposed for inspection purposes. Neither the Building Official, Fire Marshal nor any jurisdiction within this district shall be liable for expenses entailed in the removal or replacement of any material required to allow inspection.

(b) **Inspection Requests.** It shall be the duty of the person doing the work authorized by the permit and approved by the plan review process to notify the Fire Marshal or his authorized representative that such work is ready for inspection. The Fire Marshal may require that every request for inspection be filed at least one working day before the inspection is desired. Such request may be in writing or by telephone at the option of the Fire Marshal. It shall be the duty of one person requesting any required inspection to provide access to and means for proper inspection of such work.

(c) **Approval Required.** Work shall not be done on any part of any building or structure beyond the point indicated in each successive inspection without first obtaining the approval of the Fire Marshal or his authorized representative. Such approval shall be given only after an inspection has been made on each successive step in the construction as indicated by each of the inspections required in Subsection (d).

There shall be a final inspection and approval of all buildings and structures when completed and ready for occupancy or use.

(d) **Required Inspections.** The structural framework of any building or part of any building or structure shall not be covered or concealed without first obtaining the approval of the Fire Marshal or his authorized representative.

The Fire Marshal or his authorized representative, upon notification from the permit holder or his agent, shall make the following inspections and shall either approve that portion of the construction as completed or shall notify the permit holder or his agent wherein the same fails to comply with fire safety requirements.

1. **Frame Inspection:** To be made after the roof, all framing, fire blocking and bracing are in place and all pipes, chimneys, and vents are complete and the rough electrical, plumbing and heating pipes and ducts are approved.

2. **Final Inspection:** To be made after finished grading and the building is completed and ready for occupancy.

(e) **Other Inspections.** In addition to the inspections specified above, the Fire Marshal or his authorized representative may make or require other inspections of any construction work to ascertain compliance with fire code regulations and other laws which the Fire Marshal is obligated to enforce.

(f) **Reinspections.** A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from approved plans.

In instances where reinspection fees have been assessed, no additional inspection of the work shall be performed until the required fees have been paid.

Special Inspections

Sec. 306. (a) **General.** In addition to inspections required by Section 305, the owner shall employ a special inspector during construction on the following types of work:

1. REQUIRED FIRE-RESISTIVE CONCRETE: During the taking of test specimens and placing of all reinforced concrete and pneumatically placed concrete.

2. STRUCTURAL MASONRY REQUIRED TO BE FIRE RESISTIVE: During preparation of masonry wall prisms, sampling and placing of all masonry units, placement of reinforcement, inspection of grout space, immediately prior to closing of cleanouts, and during all grouting operations.

3. SPRAY-APPLIED FIREPROOFING: As required by U.B.C. Standard No. 43-8.

4. SPECIAL CASES: Work which, in the opinion of the Fire Marshal or his authorized representative, involves unusual hazards.

(b) **Special Inspector.** The special inspector shall be a qualified person who shall demonstrate his competence, to the satisfaction of the Fire Marshal, for inspection of a particular type of construction or operation requiring special inspection.

(c) **Duties and Responsibilities of the Special Inspector.**

1. The special inspector shall observe the work assigned for conformance with the approved design drawings and specifications.

2. The special inspector shall furnish inspection reports to the Fire Marshal, the engineer or architect of record and other designated persons. All discrepancies shall be brought to the immediate attention of the contractor or person responsible for the work for correction then, if uncorrected, to the proper design authority and to the Fire Marshal.

3. The special inspector shall submit a final signed report stating whether the work requiring special inspection was, to the best of his knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of these regulations.

(d) **Waiver of Special Inspection.** The Fire Marshal or his authorized representative may waive the requirement for the employment of a special inspector if he finds that the construction is of a minor nature or if he finds that employment of a special inspector is not necessary to assure compliance with fire code regulations.

(e) **Periodic Special Inspection.** Some inspections may be made on a periodic basis and satisfy the requirements of continuous inspections, provided this periodic scheduled inspection is performed as outlined in the project plans and specifications and approved by the Fire Marshal or his authorized representative.

SEC. 307. (a) **Use or Occupancy.** No building or structure of Group A, E, I, H, B, R, Division 1 or SR Occupancy, shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the fire Marshal or his authorized representative has issued an approval to occupy therefore as provided herein.

(b) **Change in Use.** Changes in the character or use of building shall not be made except as specified in Section 502 of this code.

(c) **Approval Issued.** After final inspection, when it is found that the building or structure complies with fire safety requlations and other laws which are the obligation of the Fire Marshal to enforce, the Fire Marshal or his authorized representative shall issue, in writing, an approval to occupy which shall contain the following:

1. The address of the building.

2. The name of the owner.

3. Designation of the portion of the building for which approval to occupy is issued in the case of partial occupancy.

4. The name of the person issuing the approval.

(d) **Temporary Approval.** If the Fire Marshal or his authorized representative finds that no unreasonable hazard will result from occupancy of a building or portion thereof before the same is completed, he may issue a temporary approval to occupy for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure.

(e) **Revocation.** The Fire Marshal may, in writing, suspend or revoke an approval to occupy whenever the approval was issued in error, or on the basis of incorrect information supplied, or when it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation, the enforcement of which is the responsibility of the Fire Marshal.

F. SECTION 402 AGRICULTURAL BUILDING is amended to read:

Agricultural building is a structure located on a farm and used in the operation of such farm for the storage, maintenance or repair of farm machinery and equipment or for the raising, harvesting and selling of crops or in the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and sale of dairy products or any other agricultural or horticultural use or animal husbandry or any combination thereof including the preparation and storage of products raised on such farm for man's use and animal use and disposal by marketing or otherwise.

Agricultural Building does not include:

(a) a dwelling;

(b) a structure used for a purpose other than growing plants in which persons perform more than 144 man-hours of labor a week.

(c) a structure regulated by the State Fire Marshal pursuant to ORS Chapter 476;

(d) a place used by the public; or

(e) a structure subject to Secs. 4001 to 4127, title 42, United States Code (the National Food Insurance Act of 1968) as amended and regulations promulgated thereunder. (ORS 456.917)

G. Section 407 is amended by adding a new section FARM to read:

Farm is land used for the primary purpose of obtaining a profit in money by raising, harvesting and selling of crops or by the feeding, breeding, management and sale of, or produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use or animal husbandry or any combination thereof. "Farm use" includes the preparation and storage of the products raised on such land for human use and animal use and disposal by marketing or otherwise.

H. Section 409 is amended by adding a new section HISTORICAL BUILDING to read:

Historical building is any building or structure designated under a local government landmark or historic district ordinance or buildings or structures listed in the State of Oregon state-wide inventory of Historic Properties, and properties approved for nomination to the National Register of Historic Places by the State of Oregon Advisory Committee on Historic Preservation.

I. Section 505(e)1 is amended by adding exception:

Exception: All of the following may be substituted for area separation walls in one-story industrial Group H, Division 3 and Group B, Divisions 2 and 4 Occupancies protected by:

(a) An approved automatic fire-extinguishing system meeting the requirements of U.B.C. Standard 38-1.

(b) An open-frame roof.

(c) Curtain boards constructed of materials as prescribed in Section 3206 (f)1, 2 and 3.

(d) The roof area divided into sections not to exceed 10,000 square feet.

(e) 1.5 percent of the roof area of each bay shall be provided with plastic skylights having a fusing temperature not to exceed 350^{o}_{F}. or thermally activated roof vents.

(f) Yards 40 feet in width shall be maintained on all sides of the building and the coverage of the site buildings shall not exceed 40 percent.

J. Table No. 5-A is amended by adding the following:

Group SR, Divisions 1, 2 and 3 Occupancies are structures housing more than five persons of any age not licensed as a home for the aged, who are not members of the provider's family and are used for:

SR See Also Section 1302	1 - Lodging and care of up to 15 ambulatory persons who may be either handicapped to a degree which make total self-dependence either impossible or undesirable, but who possess sufficient faculties to recognize an emergency situation and to react immediately and positively to attain self-preservation. 2 - Lodging and supervision of persons who are not handicapped, whose place of residence therein is dictated by an authorized and duly responsible governmental agency exercising legal restraint over the occupants. 3 - Lodging and care of more than five unrelated occupants living together in a special residential unit.	1 hour less than 5 feet	Not permitted less than 5 feet

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K. Section 802(c) is amended by adding a new paragraph as follows:

Storage and janitor closets shall be of one-hour fire resistive construction and have fire assemblies and approved automatic-closing smoke dampers as required in Section 802 (b) 2. Stages and platforms shall be constructed in accordance with Chapter 39. For attic space partitions and draft stops. See Section 2516(f).

L. Section 809 is amended to read as follows:

Approved manually activated fire alarms in accordance with the applicable provisions of NFPA No. 72-A, 1979 Edition shall be provided for all Group E Occupancies with an occupant load of more than 50 persons. In every Group E Occupancy provided with an automatic sprinkler or detection system, the operation of such system shall automatically activate the school fire alarm system, which shall include an alarm mounted on the exterior of the building.

M. Section 810 is added to read as follows:

Exceptions and Deviations. A building housing a Group E, Division 2 or Division 3 Occupancy for not more than 20 pupils and which will have only the first floor accessible to children may be used for school/day-care purposes, with the following exceptions to code requirements:

1. Exterior walls or parts of walls which are less than 3 feet from adjacent property lines shall have no openings therein and shall be of not less than one-hour fire-resistive construction as specified in Chapter 43.
2. Classrooms may have only one exit not less than 28 inches in clear width of opening.

N. Section 811 including tables 8-A and 8-B is added to read as follows:

Room Size. The floor area of any room or the aggregate floor area of a group of rooms sharing a common atmosphere shall not exceed in total area as set forth in Table No. 8-A, except as provided in this section.

Increase in area. The floor area of a room or the aggregate floor area of a group of rooms sharing a common atmosphere may be increased through the application of compensatory factors of type of construction employed, combustion detection and fire-suppression systems, ceiling heights and room venting as set forth in Table No. 8-A by the sum of the multiplication values assigned to the compensatory factors set forth in Table No. 8-B, except that total building areas shall not exceed the area limits specified in Sections 505 and 506.

Note: For special exit requirements, see Section 3317.

TABLE NO. 8-A

FIRE PROTECTION GRADING CLASSIFICATION OF AREA IN WHICH OCCUPANCY IS LOCATED	BASIC AREA OF ROOM OR GROUP OF ROOMS SHARING A COMMON ATMOSPHERE
1, 2 or 3	7500 sq. ft.
4, 5 or 6	5000 sq. ft.
7 through 10	2500 sq. ft.

Note: Fire Protection Grading Classification means the classification of the physical fire defenses of a city or other governmental subdivision resulting from examination by a recognized rating agency using a recognized grading schedule such as the grading schedule of the American Insurance Association, the Pacific Fire Rating Bureau, the Insurance Service Office of Oregon or a comparable recognized grading agency.

TABLE NO. 8-B

I	CONSTRUCTION TYPE (See Chapter 16 for Fire Zone Requirements)	MULTIPLIER
	Type I-F.R. & II-F.R.	2.5
	Type III One-Hour, IV-H.T., II One-Hour or V One-Hour	2.0
II	DETECTION & SUPPRESSION SYSTEMS	
	Suppression:	
	Sprinklers connected to central alarm	6.0
	Sprinklers connected to local alarm	5.0
	Detection:	
	Ionization connected to central alarm	3.0
	Ionization connected to local alarm	1.5
	Smoke connected to central alarm	2.5
	Smoke connected to local alarm	1.25
	Heat connected to central alarm	2.0
	Heat connected to local alarm	1.25

III	CEILING HEIGHT (AVERAGE)	
	Less than 10 feet	.0
	10 feet	1.0
	For each foot greater than 10 feet	0.1
	Maximum for ceiling height	2.5
IV	ROOF VENTING	
	1-1/2 percent of floor area with draft curtains	1.5
	1-1/2 percent of floor area without curtains	1.25

Note: Draft curtains shall have a minimum depth of 18 inches.

O. Section 1002(b) is amended by adding a sentence to the end of the exception to read:

See Section 3321(g) for limitation on locking devices.

and

Amending the second paragraph to read:

Every story of a Group 1, Division 3 Occupancy, exclusive of jails, prisons and reformatories, and Divisions 1 and 2 Occupancies, unless provided with a horizontal exit, shall be divided into at least two compartments, each not over 150 feet in length, accommodating approximately the same number of persons in each compartment by a smoke-stop partition extending through any concealed space and meeting the requirements of a one-hour occupancy separation so as to provide an area of refuge within the building. Corridor openings in the smoke-stop partition shall be protected with doors as required in Section 3305(h). Other openings shall be limited to ducts which have smoke-detector-activated fire dampers in the plane of the wall.

P. Section 1009 is amended to read as follows:

An approved electrically supervised fire alarm and detection system shall be provided for all Group 1 Occupancies. The system shall meet the applicable provisions of NFPA No. 72-A, 1979 Edition.

Audible alarm devices shall be capable of being heard throughout the building. All patient, inmate or guest bedrooms, operating rooms, x-ray rooms, delivery rooms, nurseries, cardiac and intensive care rooms shall be provided with an electrically supervised automatic particles-of-combustion detection system and annunciation approved by the State Fire Marshal.

Annunciator panels or alarm equipment must be so arranged to provide the most direct alerting of the person or persons immediately responsible for the protected room, zone or area. Annunciation of individual room detectors shall include:

A. An annunciator panel located at a continuously manned station on each floor, or
B. A detector-activated readily visible light over the hallway side of the patient room in combination with zone lights at the continuously manned station on each patient-occupied floor.

All combustion detection systems and sprinkler-system water-flow alarms shall be electrically interconnected with the building fire alarm system and shall be terminated at an approved central or public station. The main valve (or valves in multiple systems) shall be electrically supervised through the fire alarm system.

An automatic auxiliary power supply acceptable to the State Fire Marshal shall be provided on the premises which will maintain operating energy to the alarm systems and required exit and emergency lighting for a period of not less than eight hours.

Q. A new Chapter 13 is added to read as follows:

REQUIREMENTS FOR GROUP SR OCCUPANCIES

Group SR Occupancies Defined

Sec. 1301. Group SR Occupancies shall be:

Division 1. Lodging and care of more than five but less than 16 ambulatory persons who may be handicapped to a degree which makes total self-dependence either impossible or undesirable, but who possess sufficient faculties to recognize an emergency situation and to react immediately and positively to attain self-preservation.

Division 2. Lodging and supervision of more than five persons who are not handicapped whose place of residence therein is dictated by an authorized and duly responsible governmental agency exercising legal restraint over the occupants.

Division 3. Lodging and care of more than five unrelated occupants living together in a special residential unit. For occupant load, see Section 3301 for Group R Occupancies. For handicap access, see Chapter 31. For the purposes of determining other applicable provisions, the Group R, Division 1 Occupancy requirements shall apply to SR Occupancies unless specifically excluded. Group SR Occupancies do not include residential care facilities, nursing homes or other state-licensed care facilities.

Definitions

Sec. 1302. For the purpose of this chapter, certain terms are defined as follows:

HANDICAPPED means:

(a) A physical condition which is certified by competent medical personnel as making it unlikely that a person could escape the building in a fire emergency, or
(b) A mental condition certified by competent mental health personnel as being Group SR-1 level as defined by regulations of the Health Division, Department of Human Resources.
(c) See Chapter 31.

SR-1 LEVEL A mildly handicapped individual who is not impaired in his/her ability to make reasonable decision or take prudent action with respect to health or fire safety and self-preservation and is capable of responding on his/her own, without assistance, to a signal device to depart a building in an emergency situation and who requires 24-hour supportive service.

Construction Height and Allowable Area

Sec. 1303. (a) **General.** Buildings or parts of buildings classed in Group SR because of the use or character of the occupancy shall be limited to the types of construction set forth in Tables No. 5-C and No. 5-D for Group R-1 Occupancies and shall not exceed, in area or height, the limits specified in Sections 505, 506 and 507.

Location on Property

Sec. 1304. All buildings housing Group SR Occupancies shall front directly upon or have access to a public street not less than 20 feet in width. The access to the public street shall be a minimum 20-foot-wide right-of-way, unobstructed and maintained only as access to the public street. At least one required exit shall be located on the public street or on the access way. For fire-resistive protection of exterior walls and openings, as determined by location on property, see Section 504 and Part V.

Exit Facilities

Sec. 1305. All stairs and exits in Group SR Occupancies shall be as specified in Section 1204 for Group R, Division 1 Occupancies.

Yards and Courts

Sec. 1307. Yards and courts having required window openings therein shall comply with the requirements for Group SR Occupancies as specified in Section 1206.

Shaft Enclosures

Sec. 1309. Exits shall be enclosed as specified in Chapter 33. Elevator shafts, vent shafts and other vertical openings shall be enclosed and the enclosure shall be as specified in Section 1706.

Fire-extinguishing Systems

Sec. 1310. (a) When required by other provisions of this code, automatic fire-extinguishing systems and standpipes shall be installed as specified in Chapter 38.

EXCEPTION: In Division 1 Occupancies, automatic sprinklers as specified in NFPA Standard No. 13, 1978 Edition, using standard pipe sizing and head spacings in required locations shall be installed in the following areas:

1. Exit corridors.
2. Exit stairways.
3. Inside room doors or other openings which face on interior exitways. Single head locations shall be no more than 6 and no less than 4 feet inside such doors, except that when sidewall sprinklers are used they may be located above the opening.
4. Any other points necessary to assure the protection of the exitway.

A water supply shall be provided sufficient to operate at least five sprinkler heads simultaneously for a period of 20 minutes at a residual pressure of not less than 15 pounds per square inch at the highest head in the system. Such supply may originate from:

1. Domestic water supply.
2. Separate connections to public mains.
3. On-site reservoirs or tanks.
4. Wet standpipe lines.

Systems shall be equipped with a fire department connection and a swing check valve on the supply side.

EXCEPTION: The fire department connection may be omitted when the existing water supply to the building is capable of simultaneously operating the number of sprinkler heads installed in the two largest separate areas which are directly interconnected by a normally closed door, or when waived by the Fire Chief.

Special Hazards

Sec. 1312. Chimneys and heating apparatus shall conform to the requirements of Chapter 37 of this code and the Mechanical Code. Storage of volatile flammable liquids shall not be allowed in Group SR Occupancies, and the handling of such liquid shall not be permitted in any Group SR Occupancies in quantities or more than one gallon unless such handling complies with the Fire Code. Every room containing a boiler or central heating plant shall be separated from the rest of the building by not less than a one-hour fire-resistive occupancy separation.

EXCEPTION: A separation shall not be required for such rooms with equipment serving only one dwelling unit.

The use of portable electric heaters and fuel-fired space heaters in Group SR Occupancies is prohibited.

Fire Alarms

Sec. 1313. Fire alarm and detection systems. An approved electrically supervised fire alarm and detection system shall be provided in all Group SR Occupancies. Audible alarm devices shall be capable of being heard throughout the building. All rooms utilized for sleeping purposes and the exit system(s) shall be provided with electrically supervised automatic particles-of-combustion detection systems conforming to the provisions of NFPA No. 72-A, 1979 Edition. Structures of more than two stories or facilities utilizing more than one building shall provide annunciation capabilities so located as to provide the most direct alerting of the person(s) immediately responsible for the protected room, zone or area.

All combustion detection, fire alarm and automatic sprinkler systems shall be electrically interconnected and have an automatic auxiliary power supply acceptable to the State Fire Marshal which will maintain operating energy for a period of at least eight hours.

R. Sec. 2516(f)2A is added to read as follows:

In concealed spaces of stud walls and partitions, including furred spaces, so placed that the maximum dimension of any concealed space is not over 10 feet, and at the ceiling and floor levels.

S. Section 3305(e) is amended to read as follows:

(e) Access to Exits.

1. Direction. When more than one exit is required, they shall be so arranged that it is possible to go in either direction from any point in a corridor to a separate exit, except for dead ends permitted in this section.

2. Dead Ends. Corridors with dead ends are permitted when the dead end does not exceed 20 feet in length.

EXCEPTION: Group B, Division 2, office occupancies may have 30-foot dead-end corridors in the tenant spaces.

Section 3305(g) Exception 5, is amended to read as follows:

5. Corridors, walls and ceilings need not be fire-resistive construction within individual office suites having an occupant load of 100 or less when the entire story in which the suite is located is equipped with an automatic sprinkler system throughout and smoke detectors are installed within the corridor in accordance with their listing and connected to an approved fire alarm system installed in accordance with the NFPA No. 72-A, 1979 Edition.

T. Section 3306(b) is amended by adding a sentence to the first paragraph as follows:

Private stairways serving an occupant load of less than 10 shall be not less than 30 inches in width.

U. Chapter 33 is amended by adding Sec. 3321(g) as follows:

(g) Locking Devices. In buildings housing occupancies in which the personal liberties of inmates or patients are restrained within the building and which are constructed in conformance with the special provisions of Section 1002(b), the exterior doors may be fastened with locks, provided that room doors shall not be fastened by means other than doorknobs or similar devices which can be opened readily from the corridor side without the use of keys or any special knowledge or effort.

V. Table No. 33-A and footnotes are amended as follows:

Adding "Tennis Courts" in Item Number 4.

Adding Footnote "6" behind 300 in line Number 8.

Changing Footnote #6 to read "The occupant load for individual dwelling units shall be determined by using two persons per bedroom or Section 3302, whichever is greater."

Deleting all references to handicapped.

W. Chapter 37 is amended as follows: By adding or modifying the following definitions to Sec. 3702 to read:

CHIMNEY is a structure housing one or more flues.

CHIMNEY, CONCRETE, shall, for the purpose of this chapter be considered a masonry chimney.

CHIMNEY, MASONRY, is a chimney of masonry units, bricks, stones, concrete or listed masonry chimney units and, when required, approved flue liners.

FIRE CHAMBER (Firebox) is the chamber of a furnace, fireplace, barbecue or boiler in which the fire is contained.

FIREPLACE CLOSURE is the covering of the fireplace opening with metal or glass doors or masonry construction with access doors, which seals the fire chamber and dampers the combustion air, restricting the free-burning characteristics of the altered fireplace.

FIREPLACE FOOTING is that portion of the fireplace foundation which spreads and transmits loads directly to the soil.

FIREPLACE FOUNDATION is the supporting structure of the fire chamber and chimney.

FIREPLACE STOVE is a chimney-connected, solid-fuel-burning stove (appliance) having part of its fire chamber open to the room. For regulations see the Mechanical Code.

FLUE is a passageway, vertical or nearly so, for conveying products of combustion to the outside atmosphere.

HEARTH, INNER, is the floor of the firebox.

HEARTH, OUTER, is the noncombustible surface extending beyond the fireplace opening.

HOOD, FIREPLACE, is the noncombustible assembly located above the firebox and designed to direct the products of combustion to the flue.

SMOKE CHAMBER is the transitional area between the firebox throat and the chimney throat.

THROAT, CHIMNEY, is the intersection of the flue and the smoke chamber.

THROAT, FIREBOX, is the point of intersection between the smoke chamber and the fire chamber.

WEATHER CAP is that top portion of a chimney designed to shed water.

Sec. 3704(d) is changed to read as follows:

(d) **Chimney Offset.** The angle of slope shall not exceed 45 degrees from the vertical for any flue. Where lined, the lining shall be cut to fit.

Sec. 3705, is amended by adding second paragraph as follows:

Factory-built chimneys for wood-burning appliances shall comply with the UL Std. 103-HT or ULC Std. 629M-81 in addition to the requirements of this section.

Sec. 3707(b) & (c) are amended to read as follows:

(b) **Support.** When approved design is not provided, footings for masonry and concrete fireplaces shall be not less than 8-inches thick, extend not less than 6-inches outside the fireplace foundation wall, and project below the natural ground surface.

(c) **Fire Chamber Floors (inner hearth)** shall be of not less than 2 inches of firebrick supported on 4 inches of noncombustible material capable of supporting a live load of 50 pounds per square foot. The inner hearth shall be not less than 18 inches in depth measured from the fire chamber side of the facing material; joints in firebrick shall not exceed 1/4-inch.

Sec. 3707(g) is amended to read as follows:

(g) **Chimneys.** Chimneys for fireplaces shall be constructed as specified in Sections 3703 and 3704 for residential-type fireplaces. Approved factory-built chimneys may be used in strict accordance with their listing and if attached to a factory-built fireplace, the fireplaces listing. Effective January 1, 1987, chimneys of wood-burning fireplaces shall comply with UL Std. 103-HT or ULC S610-M1983, in addition to the requirements of this section.

Sec. 3707(i) is amended to read as follows:

(i) "shall be not less than as set forth in Table No. 37-A. Except as prohibited in Section 903(b) of the Mechanical Code, dampers are required and shall be of not less than No. 12 gauge metal. When fully opened, damper opened, damper openings shall be not less than 90 percent of the required flue area.

Each fuel-burning masonry fireplace, factory-built fireplace or factory-built stove shall be equipped with a/an outside air inlet(s) to assure a sufficient supply of air for proper fuel combustion. This inlet shall be closable from the building interior. The inlet shall be designed to prevent burning material from dropping into concealed combustible spaces. The inlet may enter directly into the fire chamber or through a wall (near the floor) or floor within 24 inches of the fireplace or appliance. The assembly shall be capable of providing all combustion air from the exterior of the building, crawl space, attic or other approved vented space. Ducts shall be noncombustible. Ducts in conditioned spaces shall be insulated and protected with a vapor barrier as required by Table No. 53-F for mechanical cooling to prevent condensation on the combustion air inlet.

Sec. 3707(k) is amended to read as follows:

(k) **Hearth.** Masonry fireplaces shall be provided with a brick, concrete, stone or other approved noncombustible hearth slab. This slab shall be not less than 2-inches thick and shall be supported by noncombustible materials or reinforced to carry its own weight and all imposed loads. Combustible forms and and centering shall be removed.

Sec. 3707(l) is amended to read as follows:

(1) **Hearth Extensions.** Hearths shall extend at least 18 inches from the front of, and at least 8 inches beyond each side of, the fireplace opening. Where the fireplace opening is 6 square feet or larger, the hearth extension shall extend at least 18 inches in front of, and at least 12 inches beyond each side of, the fireplace opening.

Hearth extensions shall be of masonry or concrete at least 4 inches thick and supported by noncombustible materials or reinforced to carry its own weight and all imposed loads. The hearth extension shall be readily distinguishable from the surrounding floor. Combustible forms and centers used during the construction of the hearth extension shall be removed after the construction is complete.

> **EXCEPTION:** When the bottom of the fire box opening is raised at least 8 inches above the top of the hearth extension, a hearth extension of not less than 3/8 inch thickness insulating millboard, brick, concrete, stone, tile or other approved noncombustible material may be used. Such hearth extensions may be placed on the sub- or finished flooring whether the flooring is combustible or not. The hearth extensions shall be readily distinguishable from the surrounding combustible floor.

When the fire chamber opening is raised not less than 8 inches above the outer hearth, and an approved factory-built fireplace or factory-built fireplace stove is installed on the hearth, a hearth extension shall be installed of not less than 3/8 inch thick insulating millboard, concrete, hollow metal, stone, tile or other approved noncombustible material. Such hearth extensions may be placed on combustible sub- or finished flooring. The hearth extension shall be readily distinguishable for the surrounding combustible floor.

SEC. 3707(o) & (p) are added to read as follows:

(o) **Void Spaces.** Void spaces within fireplace walls shall be closed at the top with noncombustible materials capable of supporting 25 pounds per square foot and not less than a concentrated load of 150 pounds at midspan.

(p) **Structural Design.** In lieu of plans, specifications and engineering data sufficient to substantiate the fireplace design, the following minimums shall apply:

(1) Maximum allowable soil pressure 1500 pounds per square foot.
(2) Minimum weight of masonry fireplaces, chimneys and foundations shall be 70 pounds per gross cubic foot.
(3) Minimum thickness of fireplace footings shall be 8 inches for single fireplace and 12 inches for multiple fireplaces when one is above the other.

Modifications to Fireplaces and Chimneys

Sec. 3708 is added to read as follows:

(a) **Modifications.** Modifications to fireplaces and chimneys shall comply with this code.
(b) **Fireplace closures.** Fireplace closures are prohibited.

EXCEPTIONS:

1. Glass fireplace screens.
2. Closures listed and approved when the fireplace is demonstrated to comply with the conditions of the listing, or
3. Factory-built fireplaces approved for the installation with such closures.

(c) **Flue Connections.** When fireplaces or chimneys are modified for the installation of fireplace inserts and room heaters and other appliances, they shall be made to comply with the requirements of this code and the Mechanical Code.

X. Chapter 38 is amended by adding Sec. 3802(h) to read as follows:

(h) **Piers or Wharves.** Piers or wharves regulated by the provisions of Chapter 58 of the code, 200 feet or more in length or 5000 square feet in area shall be equipped with automatic sprinkler systems.

Y. Table 38-A is amended by adding footnote "7" in rows 3 and 5 in the right hand column and the footnote to read as follows:

7 Class II standpipes as specified in 3803(d) shall be provided where processes or conditions exist which would nullify the effectiveness of the automatic sprinkler system.

Z. Sec. 4202(a) is amended by adding a paragraph to read as follows:

Combustible interior finish materials and combustible acoustical materials in excess of .036 inch in thickness shall be installed with metal fasteners, screws, clips, nails, staples or similar holders.

AA. Sec. 4205 is amended by adding:

Sec. 4205. In Groups A, E and I Occupancies, all curtains, draperies, drops, tapestries and similar furnishings and decorations will be composed of noncombustible materials or shall be rendered and maintained flameproof in a manner acceptable to the State Fire Marshal.

BB. Chapter 58 is amended to read as follows:

PIERS AND WHARVES

Sec. 5801. (a) **Scope.** These regulations shall apply to piers and wharves constructed in whole or in part of combustible material and to piers and wharves constructed of noncombustible materials having less than two-hour fire-resistive protection of the structural elements or pier deck.

(b) **Definitions.** For the purpose of this chapter, where the term "pier" is used it shall be construed as including "wharf" and shall include structures projecting from the shore into navigable waters so that vessels may be moored alongside for loading, unloading or for storage.

Sec. 5802 (a) **Fire-extinguishing Systems.** Automatic fire-extinguishing systems shall be installed as specified in Chapter 38 or as required by the State Fire Marshal, with due consideration being given to the amount of exposed structural elements, their fire-resistance rating and the fire hazard inherent to the operation of any particular pier.

(b) In those parts of waterfront structures where pier sprinkler piping and fire-extinguishing equipment may be subject to damage by floating debris, suitable barriers shall be provided to exclude such objects. In addition, protection from corrosion and damage due to freezing shall be provided where necessary for the adequate maintenance of the equipment in a manner acceptable to the State Fire Marshal.

Sec. 5803. **Subdivision of Substructures.** All substructures of piers falling within the scope of these regulations shall have the under-deck area sub-divided by:

1. Transverse fire walls at intervals not exceeding 450 feet and a maximum area of 50,000 square feet extending from the low water line to the deck. Where superstructures bridge a required fire wall, the wall shall extend to the roof of the superstructure in the manner of an area separation wall. (See Chapter 5.)

2. Transverse fire stops located between fire walls. Spacing between fire walls and fire stops shall not exceed 150 feet. Fire stops shall fit tightly up against the pier deck and around any structural members or pipes that pass through the fire stop so that an effective barrier to fire and draft is maintained. Fire stops shall extend to the water line. Where aprons or platforms are built along the sides of a pier, fire stops shall extend to the outside edge of such platforms.

Sec. 5804. **Detailed Requirements.** Required fire walls shall be of reinforced concrete having a fire-resistance rating of at least four hours, except that fire walls made of other materials may be used, provided they are equivalent in stability and fire resistance.

Required fire stops shall be constructed of wood planking built up to a thickness of 4 inches and securely fastened to the structural frame, or other construction having equivalent fire resistance.

Sec. 5805. **Superstructures.** Except as otherwise provided in this chapter, superstructures located on piers and wharves shall be classified by the State Fire Marshal in accordance with the provisions of Chapter 5 and shall be constructed and provided with fire protection and exit facilities in accordance with the appropriate chapters of this standard applicable to the occupancy as classified.

CC. **Appendix Chapter 32** is amended to read as follows:

RE-ROOFING

General

Sec. 3209. Regardless of the size or percentage of an area to be reroofed, all reroofing shall conform to the applicable provisions of Chapter 32 of this code.

Roofing materials shall comply with Uniform Building Code Standards. Methods of application shall comply with Uniform Building Code Standards or shall follow the manufacturer's installation requirements when approved by the building official.

Inspections

Sec. 3210. New roof coverings shall not be applied without first obtaining a building permit. A final inspection and approval shall be obtained from the building official when the reroofing is complete.

EXCEPTION: A building permit will not be required for the replacement or repair of roofing, the weight of which does not exceed 30 percent of the required live load design capacity and is not required to be fire resistant on a single-family residence, garage, carport or storage shed that is accessory to a single-family residence.

Built-up Roofs

Sec. 3211. (a) **General.** Built-up roof covering shall be completely removed before applying the new roof covering.

EXCEPTION: When all of the following conditions are met, the existing roof covering may remain. To establish the existence of these conditions the contractor shall cut and examine as necessary prior to bidding or performing work.

1. The structural design is sufficient to sustain the weight of an additional roof. If three smooth surface roofs have been applied to the roof structure previously, they shall be removed before a new roof system can be applied. Where an existing gravel surface roof has been overlaid, the overlay and gravel roof shall be removed before a new roof covering can be applied, and

2. The existing roof is securely attached to the deck, and

3. If the existing deck material has not rusted, rotted or deteriorated to the point where it does not provide a structurally sound roof base, and

4. Insulation exists and core cut samples show that industry standards approved by the Building Official will provide for drying by proper ventilation, then existing insulation may remain. However, if insulation is wet and existing industry standards approved by the building Official will not allow for proper venting, all existing insulation and built-up roof system must be removed.

(b) **Preparation of Roof and Application of New Covering.** When the conditions specified in Subsection (a) above have been met, the reroofing shall be accomplished as follows:

1. **Gravel surfaced.** The roof shall be cleaned of loose gravel and debris. All blisters shall be removed and/or made smooth. A minimum of 1/2-inch insulation board shall be nailed or cemented to the existing roofing with hot bitumen applied at the minimum rate of 40 pounds per square, over which a new roof complying with Sec.

3203 shall be installed. Where all existing gravel is removed to provide a smooth surface, all blisters shall be removed and/or made smooth. Over the prepared surface a base sheet shall be installed, attachment to be made in accordance with industry standards for nailable or non-nailable decks. Remainder of roof system to be in accordance with Sec. 3203.

2. **Smooth or cap-sheet surfaced.** All blisters and curled edges shall be removed and/or made smooth. A base sheet shall be nailed or, in the case of non-nailable decks, spot mopped to the existing roofing. New roofing conforming to Sec. 3203 shall be applied.

3. **Flashing and edgings.** Vent flashings, metal edgings, drain outlets, metal counterflashing and collars shall be reconditioned or replaced in accordance with industry standards. Collars and flanges shall, when approved by the building official, be flashed per the roofing manufacturer's instructions and industry standards.

4. **Intersecting walls.** When removing existing roofing materials and where concrete and masonry walls permit, they shall be cleaned and primed to receive new roofing and flashing. Where the built-up roofing is removed from the horizontal roof surface, the roofing at the juncture of the horizontal and vertical walls may remain on vertically nailable surfaces as long as the surface provides a smooth, sound base over which built-up roofing may be applied in accordance with Sec. 3203 of the code.

5. **Cant strips.** Where space permits, cant strips shall be installed at all angles. All angles shall be roofed and flashed in accordance with Sec. 3203 of the code or, when approved by the Building Official, to the manufacturer's written recommendations, with at least two more layers than in the new roof, with an exposed finish layer of an industry-acceptable base flashing material.

Shingles and Shakes

Sec. 3212. Shingles and shakes shall be re-covered in accordance with the following provisions:

DD. Appendix Chapter 59 is added to read as follows:

RAILROAD CLEARANCES

General

Sec. 5901. All buildings hereafter constructed shall have overhead and side clearances conforming to this chapter. Rules and section numbers are as adopted by the Oregon Public Utility Commissioner.

Enforcement

Sec. 5902 Plans and specifications shall be reviewed as required by Sec. 302(b). If the required overhead and side clearances are not provided, the office of the Public Utility Commissioner shall be notified as shown in this chapter.

Clearances

Sec. 5903. Clearances are as follows:

(a) Overhead Clearances. 44-055 in General - 22 feet 6 inches. Overhead clearances may be decreased to the extent defined by the half circumference of a circle having a radius of 8 feet 6 inches and tangent to a horizontal line 22 feet 6 inches above top of rail at a point directly above center line of track.

44-060. Buildings - 18 feet 0 inches. To apply only when tracks terminate in entirely enclosed buildings. When clearances of less than 22 feet 6 inches are established in buildings, all cars, locomotives or other equipment shall be brought to a stop before entering. "STOP" signs of standard size and design shall be properly displayed. **Note:** Engine houses and car repair shops are exempt from these regulations.

(b) Side clearances. 44-105 in General - 8 feet 6 inches. **Note:** to reduce operational hazards, it is recommended that wherever practicable, all posts, pipes, warning signs and other small obstructions be given a side clearance of 10 feet.

44-110. SIDE CLEARANCES AT PLATFORMS.

(1) Platforms constructed 8 inches or less above top of rail at greatest height - 4 feet 8 inches.

(2) Platforms constructed 4 feet 0 inches or less above top of rail at greatest height - 7 feet 3 inches.

(3) Platforms constructed 4 feet 6 inches or less above top of rail at greatest height - when used principally for unloading or loading refrigerator cars - 8 feet 0 inches.

(4) Retractable Platforms - 8 feet 6 inches.

Note: These are the rules which most often apply to construction near railroad tracks. For a complete set of clearance standards contact:

George E. Hardy, Jr. Administrator
Rail Safety Division
418 Labor & Industries Building
Salem, Oregon 97310
378-6217

Note: It is also suggested that the operating railroad be contacted. The following railroad contacts are:

Burlington Northern

R.J. Seeley, Superintendent
Burlington Northern Railroad Co.
P.O. Box 571
Portland, Oregon 97207
Telephone: 241-6221

Southern Pacific

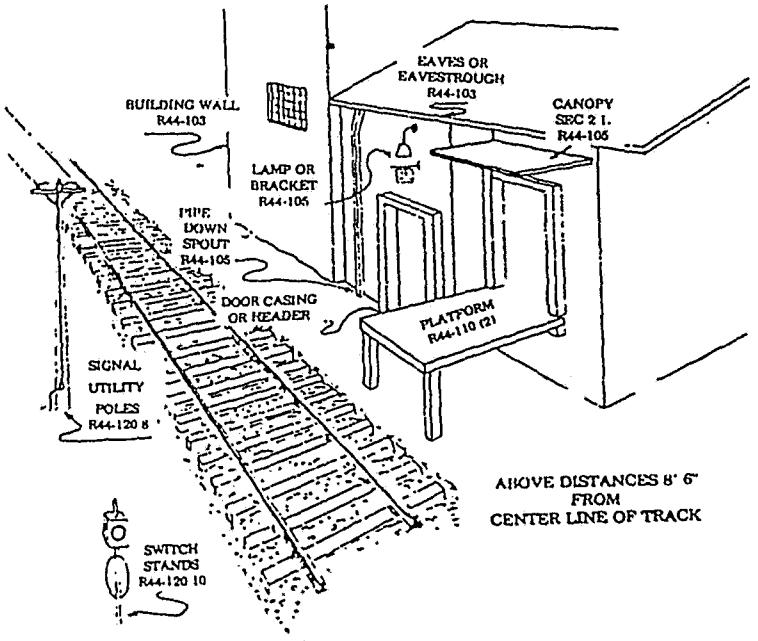
J.K. Young, Regional Engineer
Southern Pacific Transportation Co.
251 Union Station
Portland, Oregon 97209
Telephone: 228-8181

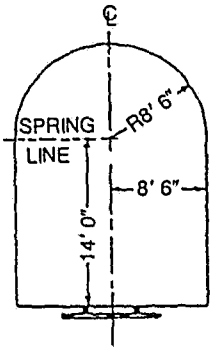
Union Pacific

R.J. Larkin, Superintendent
Union Pacific Railroad Co.
2515 S.W. 5th Ave. Suite 400
Portland, Oregon 97227
Telephone: 241-2332

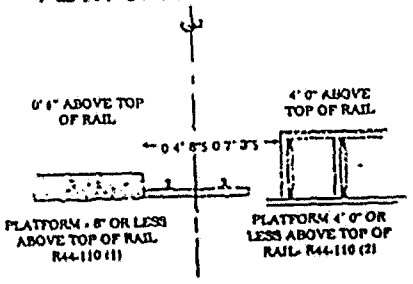
OVERHEAD CLEARANCES IN GENERAL R44-033

SIDE CLEARANCE IN GENERAL





PLATFORM CLEARANCE



SECTION IX AMENDMENTS MADE TO THE UNIFORM MECHANICAL CODE

The Uniform Mechanical Code is amended and changed in the following respects:

A. Section 103, second sentence is deleted.

B. Section 203 is deleted.

C. Chapter 3 is amended to read as follows:

Section 301. (a) **Permits Required.** Except as permitted in subsection (b) of this section, no mechanical system regulated by this code shall be installed, altered, repaired, replaced or remodeled unless approval has been obtained for each such building or structure from the Fire Marshal.

(b) **Exempt Work.** Approval shall not be required for the following:

1. A portable heating appliance, portable ventilating equipment, portable cooling unit or portable evaporative cooler.

2. A closed system of steam, hot or chilled water piping within heating or cooling equipment regulated by this code.

3. Replacement of any component part or assembly of an appliance which does not alter its original approval and complies with other applicable requirements of this code.

4. Refrigerating equipment which is part of the equipment for which approval has been obtained pursuant to the requirements of this code.

5. A unit refrigerating a system.

Exemption from the approval requirements of this code shall not be deemed to grant authorization for work to be done in violation of the provisions of this code or other laws or ordinances of this jurisdiction.

Section 302. (a) **Application.** To obtain approval, an applicant shall first file for a building permit with the Building Official within whose jurisdiction the project is located. Every application shall provide the information required by the Building Official.

(b) **Plans and Specifications.** Plans, engineering calculations, diagrams and other data shall be submitted in at least two (2) sets with each application for a building permit.

(c) **Information on Plans and Specifications.** Plans and specifications shall be drawn to scale on substantial paper or cloth and be of sufficient clarity to indicate the location, nature and extent of work proposed and show in detail that it will conform to the provisions of all relevant laws, ordinances, rules and regulations.

Plans for buildings shall indicate how required fire resistive integrity will be maintained when a penetration will be made for electrical, mechanical, plumbing and communications conduits, pipes and similar systems.

Section 303. (a) **Issuance.** Plans, drawings, specifications, computations and all other pertinent data filed with the application for a building permit with the Building Official shall be reviewed by the Fire Marshal. If the Fire Marshal finds that the drawings, plans, specifications, computations and other data conforms with the requirements of applicable laws, rules and regulations relating to fire safety, he shall endorse in writing or stamp the plans "APPROVED". Such approved plans and specifications shall not be changed, modified or altered without authorization of the Fire Marshal and all work shall be done in accordance with the approved plans.

(b) **Retention of Plans.** One set of approved plans, specifications and computations shall be kept on the project throughout all phases of construction and at all times during which the work authorized thereby is in progress and shall be made available to building and fire inspectors for reference during required construction inspections.

(c) **Validity of Permit.** The issuance for the granting of approval of plans, specifications and computations shall not be construed to be an approval of any violation of any of the provisions of the fire safety regulations of the District. No approval presuming to give authority to violate or cancel the provisions of the regulations of the District shall be valid.

Issuance of approval based upon plans, specifications or other data shall not prevent the Fire Marshal from thereafter requiring the corrections of errors in said plans, specifications or other data, or from preventing building operations being carried on thereunder when in violation of said regulations or of any other ordinances of the District.

(d) **Expiration.** Approvals of plans issued by the Fire Marshal under the provisions of these regulations shall expire by limitation and shall become null and void if the construction, building or work authorized by such approval is not commenced within one hundred eighty (180) days from the date of the issuance of such approval, or if the construction, building or work authorized by such approval is suspended or abandoned at any time after the work is commenced for a period of one hundred eighty (180) days. Before such work can be re-commenced, a new approval shall first be obtained, provided no changes have been made or will be made in the original plans and apecifications for such work; and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on an approved after expiration, the permitee shall pay a full plans examination fee.

Any permitee holding an unexpired approval may apply for an extension of the time within which he may commence work when he is unable to commence work within the time required by this section for good and satisfactory reasons. The Fire Marshal may extend the time for action by the permitee by a period not to exceed one hundred eighty (180) days upon written request by the permitee showing the circumstances beyond the control of the permitee have prevented action from being taken. No plans approval shall be extended more than once.

(e) **Suspension or Revocation.** The Fire Marshal may, in writing, suspend or revoke an approval issued under the provisions of this code whenever the permit is issued in error or on the basis incorrect information supplied, or in violation of any ordinance or regulation or any of the provisions of this code.

Section 304 (a) General. Mechanical systems for which approval is required by this code shall be inspected by the Fire Marshal. No portion of any mechanical system intended to be concealed shall be concealed until inspected and approved. Neither the Fire Marshal nor the jurisdiction shall be liable for expense entailed in the removal or replacement of material required to permit inspection. When the installation of a mechanical system is complete, an additional and final inspection shall be made. Mechanical system regulated by this code shall not be connected to an energy supply until authorized by the Fire Marshal.

(b) **Operation of Mechanical Equipment.** The requirements of this section shall not be considered to prohibit the operation of mechanical systems installed to replace existing equipment or fixtures serving an occupied portion of the building in the event a request for inspection of such equipment or fixture has been filed with the Fire Marshal not more than forty-eight (48) hours after such replacement work is completed and before any portion of such mechanical system is concealed by any permanent portion of the building.

(c) **Testing of Equipment.** Refrigeration equipment regulated by this code shall be tested and approved as required by Section 1520 of this code. Where applicable (see Section 103), steam and hot water boilers and piping shall be tested and approved as required by Section 2123 and 2127 of Appendix B of this code.

Where applicable (see Section 103), fuel gas piping shall be tested and approved as required by Section 2206 of Appendix D of this code.

(d) **Inspection Requests.** It shall be the duty of the person doing the work authorized by approval to notify the Fire Marshal that such work is ready for inspection. The Fire Marshal may require that every request for inspection be filed at least one working day before such inspection is desired. Such requests may be in writing or by telephone at the option of the Fire Marshal.

It shall be the duty of the person requesting inspections required by this code to provide access to and means for proper inspection of such work.

(e) **Other Inspections.** In addition to called inspections required by this code, the Fire Marshal may make or require other inspections of any mechanical work to ascertain compliance with the provisions of this code and other laws or regulations which are enforced by the District.

(f) **Reinspections.** A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called and is not complete or when required corrections have not been made.

This provision is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirement of this code, but as controlling the practice of calling for inspections before the job is ready for inspection or reinspection.

To obtain reinspection, the applicant shall file an application therefor in writing and pay the reinspection fee of thirty (30) dollars.

In instances where reinspection fees have been assessed, no additional inspection of the work shall be performed until required fees have been paid.

Section 305 (a) **Energy Connections.** No person shall make connections from a source of energy fuel to any mechanical system or equipment regulated by this code for which an approval is required until approved by the Fire Marshal.

(b) **Temporary Connections.** The Fire Marshal may authorize temporary connection of the mechanical equipment to a source of energy fuel for the purposes of testing the equipment, or for the use under a temporary certificate of occupancy.

D. Section 504(f) is amended to read as follows:

LPG Appliances. Liquefied petroleum gas-burning appliances shall not be installed in any pit, above-grade underfloor space, basement or similar location where heavier-than-air gas might collect to form a flammable mixture.

> **EXCEPTION:** Appliances so fueled may be installed in an above-grade underfloor space or basement if provided with an approved means of removal of unburned gas.

E. Footnote 4 of Table 5-A is amended as follows:

Combustible floors under room heaters shall have protection which shall extend 12 inches on all sides and to the rear of the appliance, except that a minimum of 18 inches of floor protection is required on the appliance's open side or sides measured horizontally from the edges of the opening.

Room heaters which provide an open space under the fire chamber of:

(a) Less than 4 inches shall have floor protection of hollow masonry not less than 4 inches in thickness covered with sheet metal not less than 0.021 inches (no. 24 gauge) laid over the combustible floor or approved equal protection. The masonry shall be laid with ends unsealed and joints matched in such a way as to provide free circulation of air through the masonry void.

(b) Four inches or more shall have a minimum floor protection of not less than 3/8 inch insulating millboard, hollow metal, tile or other noncombustible material. This protection shall be installed on the subfloor or finished floor.

F. Table 5-B is amended by adding lines i and j:

i.	4" common brick or equal if spaced out 1" and ventilated	18	12	18	12	9	9	9	6	6	3	3	3
j.	Prefabricated brick 1-1/8" thick spaced out 1" and ventilated	30	18	30	15	9	12	9	6	6	3	3	3

G. Section 912(a) is amended by adding the following sentence:

Factory-built chimmneys shall comply with UL Standard No. 103 HT or ULC Standard No. 629M-81 in addition to the requirements of this section.

H. Section 1102 is amended by adding the following definitions:

Flammable Vapors or Fumes are the concentration of flammable constituents in air that exceed 10 percent of their lower flammable limit.

FLAMMABLE DUST is a dispersion of a flammable particulate in air.

I. Section 1104 is amended to read as follows:

(a) **General.** Environmental air ducts not regulated by other provisions of this code shall comply with this section. Ducts shall be substantially airtight throughout and shall comply with the provisions of Chapter 10. Exhaust ventilation ducts shall terminate outside the building and shall be equipped with back-draft dampers.

(b) **Special Ducts.** 1. Ducts used for domestic kitchen range ventilation or domestic dryer ventilation shall comply with Subsection (a) and shall have smooth, noncombustible, non-absorbent surface. For additional requirements on domestic dryer exhausts, see Section 1903.

EXCEPTION: Approved flexible duct connectors not more than 6 feet in length may be used in connection with domestic dryer exhausts. Flexible duct connectors shall not be concealed within construction.

2. Ducts used for bathroom and laundry room ventilation shall comply with Subsection (a) and shall have a noncombustible, non-absorbent surface.

J. Section 1105(a) is amended by adding the following at the end of the first paragraph:

EXCEPTION: Ducts conveying vapor or fumes having flammable constituents less than 25 percent of their lower flammability limit (LFL) may pass through other spaces. Separate and distinct systems shall be provided for incompatible materials.

K. Section 1107(b) EXCEPTIONS, Number 3 is amended to read as follows:

3. Ducts used in central vacuum-cleaning systems may be of Schedule 40 non-metallic pipe except where they penetrate a fire wall. Penetrations of fire walls, floor-ceiling or roof-ceiling assemblies shall comply with Sections 4304 and 4305 of the Building Code.

L. Section 1107(c) first paragraph, last sentence, is amended to read as follows:

Ducts constructed of steel shall comply with U.M.C. Standard No. 10-2 Appendix A.

M. Section 1107(c) EXCEPTIONS, 2, is amended to read as follows:

2. Ducts used in central vacuuming systems may be constructed of Schedule 40 non-metallic pipe. Penetrations of fire-resistive walls, floor-ceiling or roof-ceiling assemblies shall comply with Sections 4304 and 4305 of the Building code. Copper or ferrous pipes or conduit extending from within the separation between a garage and dwelling unit to the central vacuum unit may be used.

N. Section 1107(c) paragraph 3 is amended to read as follows:

Aluminum construction may be used in Class 1 duct systems or Class 5 systems when coated with appropriate corrosion-resistant material. The thickness of aluminum ducts shall be at least two Brown & Sharpe gages thicker than the gages required for steel ducts set forth in U.M.C. Standard No. 10-2.

O. Section 1107(d), last paragraph is amended to read as follows:

EXCEPTION: Systems conveying only fumes or vapors may use take-off fittings recommended by SMACNA.

Ducts used to convey solid particulates shall provide access for complete cleaning of the duct system.

Access openings shall also be provided for access to sprinklers and other equipment within the duct which requires servicing.

P. Section 1107(f), is amended to read as follows:

Supports. Shall be as per SMACNA design standards. The design of supports shall assume that 50 percent of the duct is full of the particulate being conveyed.

Q. Section 1107(g), is amended to read as follows:

Fire Protection. Sprinklers or other fire-protection devices shall be required at 12-foot intervals in a metal ductwork with a cross-sectional area greater than 144 square inches when a flammable coating can accumulate on the interior of the duct. All plastic ducts greater than 144 square inch cross-section area shall be sprinklered at 12-foot intervals.

EXCEPTION: Listed fire-resistant ductwork may be installed without automatic sprinklers.

R. Table 11-A is amended by adding the following:

Special conveying systems such as fluidized beds, etc., shall be designed as required for the process, subject to the approval of the Building Official.

S. Section 2101 is amended to read as follows:

Sec. 2101. The purpose of this chapter is to establish and provide minimum standards for the protection of public welfare, health, safety and property by regulating and controlling the quality, location and installation of steam and hot-water boilers, pressure vessels, and piping not regulated by the Oregon Boiler and Pressure Vessel Law.

T. Section 2102 is amended to read as follows:

Sec. 2102. The requirements of this chapter shall apply to boiler rooms, chimneys and vents, floors, fuel piping and the construction, installation, repair and alteration of all boilers, pressure vessels and pressure piping not covered by the following exceptions:

EXCEPTIONS: 1. Boilers, pressure vessels and associated pressure piping regulated by the Oregon Boiler and Pressure Vessel Laws and Rules, which include:

A. Automatic utility hot water heaters used for space heating.

B. All vessels operating above any of the following:

i. Volumes of 120 gallons, or
ii. Water temperature of 210 deg. F., or
iii. 150 pounds operating prssure, or
iv. 200,000 BTU input.

2. Water heaters which heat potable water and are equipped with approved safety devices and operating at or below all of the following:

i. Volumes of 120 gallons, or
ii. Water temperature of 210 deg. F., or
iii. 150 pounds operating pressure, or
iv. 200,000 BTU input.

are regulated by the Plumbing Code.

U. Section 2104 is amended as follows:

Adding definition to read: **ANSI-B31.9** is the code for hot-water distribution systems and hydronics.

Adding definition to read: **APPROVED** means ASME certification or appropriate ANSI certification, with respect to materials, devices, inspections and appurtenances.

Adding definition to read: ANSI is the American National Standards Institute.

Adding definition to read: ASME CODE means the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, latest edition.

Deleting definition for **Automatic Boiler**

Amending definition **Boiler** to read as follows: means a closed vessel or vessels intended for the heating or vaporizing of liquids to be used externally to such vessel or vessels by application of heat from combustible fuels, electricity or nuclear energy; and related appurtenances, including, but not limited to, pressure piping directly connected and related to the safe operation of a boiler, and pressure piping to the second valve from the boiler.

Deleting definition for **Burner, Automatic Boiler**

Adding definition to read: **Code Symbol Stamp** is a clover-leaf-shaped logo with either an S.U.H. or PP to designate the type of service for which the vessel is manufactured.

Delete definition for **Hot-Water Supply Boiler**

Delete definition for **Low-Pressure Hot-Water Heating Boiler**

Delete definition for **Low-Pressure Steam Heating Boiler**

Delete definition for **Miniature Boiler**

Delete definition for **Package Boiler**

Delete definition for **Power Boiler Plant**

Delete definition for **Power Hot-Water Boiler (High-Temperature Water Boiler)**

Delete definition for **Power Steam Boiler**

V. Amending Section 2105 to read as follows:

> **Sec. 2105.** It shall be unlawful to install any boiler or pressure vessel regulated by this code without first obtaining a permit to do so from the Building Official.

W. Amending Section 2106(a) to read as follows:

> **Sec. 2106 (a) Safety Requirements.** All boilers and pressure vessels, and the installation thereof, shall conform to minimum requirements for safety established by this code.

X. Delete **Section 2106(e)**

Y. Amending the first paragraph in Section 2107(a) to read as follows:

> **Section 2107 (a) General.** All hot-water heating systems provided with an air expansion tank shall be securely fastened to the structure. Supports shall be adequate to carry twice the weight of the tank filled with water without placing any strain on connecting piping.

Z. Delete **Sections 2107(b), (c), and (d)**

AA. Adding a second paragraph to **Section 2109** to read as follows:

> All valves used in the boiler steam or hot-water piping system shall have a working pressure rating of 100 pounds for boilers operating at a pressure of 100 pounds or less, and 200 pounds pressure rating for boilers operating between 100 and 150 pounds pressure.

BB. Delete **Section 2112**

CC. Delete **Section 2113**

DD. Delete the second and third paragraphs from **Section 2114**

EE. Amending the fourth paragraph in **Section 2114** to read as follows:

> Package boilers, miniature boilers, low-pressure heating boilers and hot-water supply boilers with no manhole on top of shell shall have a minimum clearance of 2 feet from the ceiling.

FF. Delete **Section 2116**

GG. Delete **Section 2122**

HH. Amending Section 2123 to read as follows:

> **Sec. 2123.** Any installation for which a permit is required shall not be put into service until it has been inspected and approved.

II. Delete **Section 2124**

JJ. Delete **Section 2126**

KK. Delete **Section 2127.1** and change number "2" to number "1".

LL. Amending Section 2127.2.A.(1) to read as follows:

A. **Materials and Construction. (1) Pipe.** Pipe shall be brass, copper, galvanized or black wrought iron, galvanized or black steel, or other approved materials.

MM. Amending Section 2127.2.A.(3) by adding a second paragraph to read as follows:

Hose bibs shall not be installed in steam or hot-water lines unless approved by the Building Official.

NN. Delete **Section 2127.2.C.(2)** Cast Iron Pipe.

OO. Delete **1000 and 2000** from first column and **150 and 300** from the second column of Table No. 21-B.

PP. Delete **Rows B, C, D, F, and H** of Table No. 21-C.

QQ. Delete **Footnotes 3, 4, 5, 6, 7, and 10** from the Footnotes for Table No. 21-C.

RR. Amend Section 2213(b), EXCEPTION, to read as follows:

EXCEPTION: When the installation of gas piping underground beneath buildings is unavoidable, the piping shall be encased in a conduit. The conduit shall extend into an accessible portion of the building and, at the point where the conduit terminates inside the building, the space between the conduit and the gas piping shall be sealed to prevent the possible entrance of any gas leakage. The conduit shall extend at least 6 inches outside the building, be vented above grade to the outside, and be installed in a way as to prevent the entrance of water and insects.

SS. Amend Section 2213(d) to read as follows:

(d) **Corrosion and Covering Protection.** Non-metallic gas piping shall have a minimum of 18 inches of earth cover or other equivalent protection. Risers shall be metallic and shall be wrapped to a point a minimum of 6 inches above grade.

Ferrous metals in exposed exterior locations shall be protected from corrosion in a manner approved by the Building Official, after consulting with the gas supplier.

Ferrous pipes installed underground shall not be placed in contact with other metallic objects such as pipes or wires.

Zinc coatings (galvanizing) shall not be deemed adequate protection for piping below grade. Ferrous gas piping installed underground in exterior location shall be protected from corrosion by either:

1. **Coated and Cathodically Protected Pipe.** All gas pipe protective coatings shall be approved types, machine applied and conform to recognized standards. Field wrapping shall provide equivalent protection and is restricted to those short sections and fittings necessarily stripped for treading or welding. Underground coated and wrapped gas piping shall be cathodically protected with galvanic anodes or rectifiers and electrically isolated from the rest of the system by insulating unions 6 inches above grade.

2. **Unwrapped (Bare) Pipe and Special Covering.** Unwrapped ferrous gas piping being installed underground in exterior locations shall be protected from corrosion by being installed within a minimum 6 inch protective bed of sand around the gas piping, the pipe being centrally located within the sand backfill, and all such horizontal piping shall have a minimum of 12 inches of earth cover or other equivalent protection. Underground piping shall be electrically isolated from the rest of the system by insolating unions place a minimum of 6 inches above grade.

TT. Amend Section 2213(l) to read as follows:

(l) **Tracer for Non-Metallic Buried Piping.** A No. 18 copper insulated tracer wire or other approved conductor shall be installed above underground non-metallic gas piping and shall terminate above grade at one end.

UU. Amend Section 2215, seventh paragraph to read as follows:

Liquefied petroleum gas piping shall not serve appliances located in a pit, above-grade under-floor space, basement or similar location where heavier-than-air gas might collect to form a flammable mixture.

EXCEPTION: Appliances so fueled may be installed in an above-grade underfloor space or basement if provided with an approved means of removal of unburned gas.

VV. Amend Section 2220(d) to read as follows:

(d) **Two. 3.5 and 10 psig.** Table Nos. 22-E, 22-F, 22-G and 22-H may be used to size a natural-gas piping system carrying 2, 3.5 or 10 psig gas. The procedure to determine the size of each section of the system is similar to that contained in Section 2219 using the pipe length from the meter to the most remote regulator on the medium-pressure system and sizing to the downstream low-pressure piping from Table No., 22-D.

WW. Amend Section 2220(e) to read as follows:

(e) **Ten psig.** Table No. 22-J may be used to size undiluted liquefied petroleum gas piping systems carrying 10 psig gas. The procedure to determine the size of each section of the system is similar to Section 2219 using the pipe length from the first stage or tank regulator to the most remote regulator in the second-state system. Low-pressure piping shall be sized from Table No. 22-1.

XX. Amend Section 2221(b), first paragraph to read as follows:

(b) **Required Gas Supply.** The minimum hourly volume of gas required at each mobile home lot outlet or any section of the mobile home park gas piping system shall be calculated as shown in Table No. 22-K.

YY. Amend Section 2221(c), second sentence to read:

Gas piping shall not be installed below ground under any mobile home.

ZZ. Amend Section 2221(d), first paragraph to read as follows:

(d) **Location.** Gas piping shall not be installed underground beneath buildings or that portion of the mobile home lots reserved for the location of mobile homes, mobile home accessory buildings or structures, or concrete slabs, unless installed in a gas-tight conduit.

AAA. Amend Section 2221(d), third paragraph to read as follows:

The conduit shall extend to a point not less than 12 inches beyond any area where it is required to be installed, or the outside wall of a building and the outer ends shall be vented above grade to the outside and be installed in a way to prevent entrance of water or insects. Where the conduit terminates within a building, it shall be readily accessible, and the space between the conduit and the gas piping shall be sealed to prevent leakage of gas into the building.

BBB. Amend footnote number 1 in Table 22-C to read:

See Table No. 22-K.

CCC. Amend Tables No. 22-E, 22-F, 22-G, 22-H, 22-I, 22-J and 22-K as follows:

TABLE NO. 22-E—PIPE CAPACITY, STANDARD CUBIC FEET PER HOUR
For sizing gas piping systems carrying gas of 0.60 specific gravity
for gas pressure of 2.0 PSIG with a drop to 1.8 PSIG

SCHED. 40 PIPE SIZE (inches)	TOTAL EQUIVALENT PIPE LENGTH, FEET											
	50	100	150	200	300	400	500	700	1000	1500	2000	3000
½	303	203	161	136	108	92	80	66	54	43	36	29
¾	651	437	346	293	232	196	173	142	116	92	78	62
1	1,257	844	668	566	449	380	334	276	224	178	151	119
1¼	2,654	1,781	1,411	1,196	947	803	706	582	474	375	318	252
1½	3,956	2,711	2,147	1,820	1,442	1,222	1,075	886	721	571	484	384
2	7,703	5,241	4,243	3,596	2,848	2,414	2,123	1,750	1,425	1,129	957	758
2½	12,374	8,419	6,721	5,728	4,622	3,918	3,446	2,840	2,313	1,832	1,553	1,230
3	22,085	15,026	11,995	10,223	8,161	6,956	6,228	5,133	4,181	3,311	2,807	2,223
3½	32,543	22,142	17,676	15,065	12,026	10,250	9,054	7,627	6,213	4,921	4,171	3,303
4	45,588	31,017	24,761	21,103	16,847	14,358	12,684	10,521	8,630	6,944	5,885	4,661
5	83,747	56,675	45,244	38,560	30,783	26,236	23,176	19,225	15,769	12,588	10,729	8,630
6	135,052	92,515	73,855	62,945	50,249	42,826	37,833	31,382	25,740	20,548	17,513	13,981

TABLE NO. 22-F—MEDIUM-PRESSURE NATURAL GAS SYSTEM
PIPE CAPACITY, STANDARD CUBIC FEET PER HOUR
For sizing gas piping systems carrying gas of 0.60 specific gravity
for gas pressure of 3.0 PSIG with a drop to 2.7 PSIG

SCHED. 40 PIPE SIZE (inches)	TOTAL EQUIVALENT PIPE LENGTH, FEET											
	50	100	150	200	300	400	500	700	1000	1500	2000	3000
½	394	265	210	178	141	119	105	86	70	56	47	37
¾	849	570	451	382	303	257	226	186	152	120	102	81
1	1,638	1,100	871	738	585	496	435	359	293	232	196	156
1¼	3,388	2,322	1,839	1,559	1,235	1,046	920	758	618	489	415	329
1½	5,111	3,534	2,799	2,373	1,879	1,593	1,401	1,154	940	745	631	500
2	9,952	6,771	5,405	4,687	3,713	3,147	2,768	2,281	1,858	1,472	1,247	988
2½	15,986	10,877	8,683	7,400	5,908	5,107	4,492	3,702	3,015	2,388	2,024	1,603
3	28,845	19,413	15,497	13,208	10,544	8,986	7,939	6,691	5,450	4,317	3,658	2,898
3½	42,131	28,606	22,836	19,463	15,537	13,242	11,698	9,703	7,959	6,415	5,437	4,306
4	58,557	40,072	31,989	27,264	21,765	18,550	16,387	13,593	11,149	8,900	7,672	6,076
5	105,457	73,221	58,452	49,818	39,769	33,895	29,942	24,837	20,372	16,263	13,861	11,065
6	170,063	119,524	95,415	81,321	64,918	55,329	48,877	40,543	33,255	26,547	22,626	18,062

TABLE NO. 22-G—MEDIUM-PRESSURE NATURAL GAS SYSTEM
PIPE CAPACITY, STANDARD CUBIC FEET PER HOUR
For sizing gas piping systems carrying gas of 0.60 specific gravity
for gas pressure of 5.0 PSIG with a drop to 4.5 PSIG

SCHED. 40 PIPE SIZE (Inches)	TOTAL EQUIVALENT PIPE LENGTH, FEET											
	50	100	150	200	300	400	500	700	1000	1500	2000	3000
½	561	377	298	253	200	170	149	123	100	79	67	53
¾	1,208	811	642	544	431	365	321	265	216	171	145	115
1	2,331	1,565	1,240	1,051	832	705	620	511	416	330	280	221
1¼	4,764	3,304	2,617	2,218	1,757	1,489	1,310	1,079	879	696	590	467
1½	7,280	4,890	3,903	3,376	2,674	2,266	1,993	1,643	1,338	1,060	898	711
2	13,987	9,521	7,601	6,478	5,171	4,477	3,938	3,245	2,644	2,094	1,775	1,406
2½	22,245	15,294	12,209	10,406	8,307	7,080	6,254	5,267	4,291	3,398	2,880	2,281
3	39,200	27,297	21,791	18,572	14,826	12,636	11,163	9,259	7,595	6,142	5,206	4,123
3½	57,255	40,485	32,110	27,267	21,847	18,620	16,448	13,644	11,191	8,934	7,736	6,127
4	79,577	56,270	44,981	38,337	30,604	26,083	23,042	19,113	15,677	12,515	10,666	8,646
5	143,313	101,338	82,742	70,050	55,920	47,660	42,103	34,924	28,646	22,868	19,490	15,559
6	231,110	163,419	133,431	114,347	91,283	77,799	68,727	57,009	46,760	37,329	31,814	25,397

TABLE NO. 22-H—MEDIUM-PRESSURE NATURAL GAS SYSTEM
PIPE CAPACITY, STANDARD CUBIC FEET PER HOUR
For sizing gas piping systems carrying gas of 0.60 specific gravity
for gas pressure of 10.0 PSIG with a drop to 9.0 PSIG

SCHED. 40 PIPE SIZE (Inches)	TOTAL EQUIVALENT PIPE LENGTH, FEET											
	50	100	150	200	300	400	500	700	1000	1500	2000	3000
½	948	636	504	427	338	287	252	203	169	134	114	90
¾	1,986	1,369	1,084	919	728	617	543	447	364	288	245	194
1	3,741	2,643	2,093	1,774	1,405	1,191	1,048	863	703	557	472	374
1¼	7,672	5,425	4,293	3,659	2,967	2,515	2,212	1,823	1,485	1,176	997	789
1½	11,482	8,119	6,476	5,520	4,406	3,827	3,366	2,774	2,260	1,790	1,517	1,202
2	22,051	15,600	12,737	10,748	8,580	7,313	6,460	5,359	4,465	3,536	2,997	2,374
2½	35,085	24,809	20,256	17,265	13,783	11,747	10,377	8,603	7,060	5,636	4,864	3,853
3	61,828	43,719	35,696	30,914	24,599	20,966	18,521	15,353	12,601	10,060	8,574	6,844
3½	90,305	63,855	52,138	45,152	36,248	30,894	27,292	22,638	18,569	14,823	12,634	10,085
4	125,513	88,751	72,465	62,756	51,240	43,278	38,232	31,713	26,012	20,765	17,698	14,128
5	226,039	159,834	130,504	113,019	92,280	79,078	69,858	57,945	47,529	37,942	32,338	25,813
6	364,515	257,751	210,453	182,258	148,813	128,876	114,034	94,590	77,586	61,936	52,787	42,140

TABLE NO. 22-I—MAXIMUM CAPACITY OF PIPE IN THOUSANDS OF Btu/h
OF UNDILUTED LIQUEFIED PETROLEUM GASES
For Distribution Pressure of 11-Inch Water Column, Pressure Drop of 0.5-Inch Water Column

NOMINAL IRON PIPE SIZE (In Inches)	LENGTH OF PIPE, FEET												
	10	20	30	40	50	60	70	80	90	100	125	150	200
½	275	189	152	129	114	103	96	89	83	78	69	63	55
¾	567	393	315	267	237	217	196	185	173	162	146	132	112
1	1071	732	590	504	448	409	378	346	322	307	275	252	213
1¼	2205	1496	1212	1039	913	834	771	724	677	630	567	511	440
1½	3307	2299	1858	1559	1417	1275	1181	1086	1023	976	866	787	675
2	6221	4331	3465	2992	2646	2394	2205	2047	1921	1811	1606	1496	1260

TABLE NO. 22-J—FOR PROPANE GAS PRESSURE OF 10.0 psi WITH MAXIMUM PRESSURE DROP OF 3.0 psi
Maximum Delivery Capacity in Cubic Feet of Gas per Hour of I.P.S. Pipe of Different Diameters and Lengths Carrying Propane Gas of 1.52 Specific Gravity

Pipe Size (in inches)	Length of Pipe (in Feet)											
	50'	100'	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
½	1,100	680	550	470	420	380	350	325	300	285	272	260
¾	2,070	1,423	1,142	978	867	785	722	672	631	590	566	540
1	3,899	2,680	2,152	1,842	1,632	1,479	1,361	1,266	1,188	1,122	1,066	1,017
1¼	8,005	5,502	4,418	3,782	3,351	3,037	2,794	2,599	2,439	2,303	2,188	2,087
1½	11,994	8,244	6,620	5,666	5,022	4,550	4,186	3,894	3,654	3,451	3,278	3,127
2	23,100	15,877	12,750	10,912	9,671	8,763	8,062	7,500	7,037	6,647	6,313	6,023
2½	36,818	25,305	20,321	17,392	15,414	13,966	12,849	11,953	11,215	10,594	10,062	9,599
3	65,088	44,734	35,923	30,746	27,249	24,690	22,714	21,131	19,827	18,728	17,787	16,969
	650'	700'	750'	800'	850'	900'	950'	1000'	1100'	1200'	1300'	1400'
½	250	240	230	222	215	208	202	198	188	180	171	164
¾	517	496	478	462	447	433	421	409	389	371	355	341
1	973	935	901	870	842	816	793	771	732	699	669	643
1¼	1,999	1,920	1,850	1,786	1,729	1,678	1,628	1,583	1,504	1,434	1,374	1,320
1½	2,995	2,877	2,772	2,676	2,590	2,511	2,439	2,372	2,253	2,149	2,058	1,977
2	5,767	5,541	5,338	5,155	4,988	4,836	4,697	4,568	4,339	4,139	3,964	3,808
2½	9,192	8,831	8,507	8,215	7,950	7,708	7,486	7,281	6,915	6,597	6,316	6,069
3	16,250	15,611	15,040	14,523	14,055	13,627	13,234	12,872	12,225	11,663	11,169	10,730
4	33,145	31,842	30,678	29,623	28,667	27,795	26,993	26,255	24,935	23,789	22,780	21,885
	1500'	1600'	1700'	1800'	1900'	2000'	2100'	2200'	2300'	2400'	2500'	2600'
½	154	152	148	143	139	136	133	130	127	124	121	118
¾	329	317	307	298	289	281	274	267	261	255	249	244
1	619	598	579	561	545	530	516	503	491	480	470	460
1¼	1,271	1,228	1,135	1,152	1,119	1,088	1,060	1,033	1,009	986	964	944
1½	1,905	1,839	1,780	1,726	1,676	1,630	1,585	1,548	1,512	1,477	1,445	1,415
2	3,669	3,543	3,428	3,324	3,228	3,140	3,058	2,982	2,911	2,845	2,783	2,724
2½	5,847	5,646	5,464	5,298	5,145	5,004	4,874	4,753	4,640	4,534	4,435	4,342
3	10,337	9,982	9,660	9,366	9,098	8,847	8,616	8,402	8,203	8,016	7,841	7,676
4	21,083	20,360	19,705	19,103	18,552	18,045	17,575	17,138	16,731	16,350	15,993	15,657
5	38,143	36,834	35,645	34,560	33,564	32,645	31,795	31,005	30,268	29,579	28,933	28,325
6	61,782	59,643	57,718	55,961	54,348	52,860	51,483	50,204	49,011	47,895	46,849	45,865

TABLE NO. 22-K—MINIMUM DEMAND FACTORS FOR CALCULATING GAS PIPING SYSTEMS IN MOBILE HOME PARKS

Number of Mobile Home Lots	Demand Factor Btu/h Mobile Home Site
1	125,000
2	117,000
3	104,000
4	96,000
5	92,000
6	87,000
7	83,000
8	81,000
9	79,000
10	77,000
11-20	66,000
21-30	62,000
31-40	58,000
41-60	55,000
Over 60	50,000

SECTION X APPEALS

Whenever the Fire Chief, Fire Marshal, or their authorized representatives shall disapprove a construction or alteration plan, or deny a permit applied for under this ordinance, or when it is claimed that the provisions of these regulations do not apply, or that the true intent and meaning of these regulations have been misconstrued or wrongly interpreted, the aggrieved person may appeal the decision of the Fire Chief or Fire Marshal or their authorized representatives to the Board of Appeals of the district, in care of the district offices. Said written notice shall be filed within thirty (30) days of the date of the decision by the Fire Chief, Fire Marshal, or their authorized representatives.

In order to determine the suitability of alternate methods, materials, and types of construction, and to provide for a reasonable interpretation of the provisions of these regulations, there shall be and is hereby created a Board of Appeals consisting of five members and five alternate members appointed by the Board of Directors, who are qualified by experience and training to pass upon pertinent matters. The Fire Marshal shall designate, from time to time as necessary, a person to act as Secretary to the Board for the purpose of recording minutes of appeals hearings and such other clerical functions as may be necessary to keep accurate records of all proceedings coming before the Boards, and shall serve as ex-officio member of the Board without voting privileges. The Board shall consist of five members who are qualified by experience and training to render decisions on fire and life safety matters.

The members of the Board of Appeals shall be appointed by the Board of Directors for three year terms filled on a rotating basis. No member or alternate member shall hear appeals or render a decision on an appeal on any matter in which he or she may have a personal or pecuniary interest. The Board of Appeals shall establish rules for the conduct of its meetings and notice thereof.

SECTION XI NEW MATERIALS, PROCESSES OR OCCUPANCIES WHICH MAY REQUIRE PERMITS

The Chief and the Fire Marshal shall act as a committee to determine and specify, after giving affected persons an opportunity to be heard, any new materials, processes or occupancies for which permits are required in addition to those now enumerated in said Code. The Chief of the Bureau of Fire Prevention shall post such list in a conspicuous place in his office and distribute copies thereof to interested persons.

SECTION XII PENALTIES

Any person who shall violate any of the provisions of these regulations hereby adopted or fail to comply therewith, or shall violate or fail to comply with any order made thereunder, or who shall build in violation of any detailed statement, specification or plans submitted and approved hereunder and from which no appeal has been taken, or who shall fail to comply with such an order as affirmed or modified by the Board of Appeals or by a court of competent jurisdiction within the time affixed herein, shall severally, for each and every such violation and non-compliance respectively, be guilty of a misdemeanor as provided in ORS 478.930 punishable upon conviction as prescribed by ORS 478.990.

The corporation counsel, the Fire Chief, or the Fire Marshal or his designated representative may bring a complaint in law or inequity to alleviate a violation of this ordinance as well as in addition to the rights to enforce said ordinance under the provisions of ORS 478.930 and ORS 478.990.

SECTION XIII PLAN REVIEW--SUBMITTAL OF PLAN

Any building (exclusive of one and two family dwellings, farm barns, and out-buildings); flammable liquid storage utilization, transportation or dispensing facilities; and facility for the storage, handling, transport and use of explosive and blasting agents; dry-cleaning plants; facilities for the storage, handling, use and transportation of liquefied petroleum gases; or any other building, structure or facility wherein highly combustible or hazardous materials are manufactured, utilized, dispensed, conveyed or stored; the plans and specifications therefore shall be submitted to the Fire Marshal of the district or his authorized representative for examination and approval with respect to conformance with these regulations and no construction shall proceed prior to such approval. When the Fire Marshal or his authorized representative approves any such plan, he shall so signify by means of a stamp and signature. All construction or alteration shall thereafter comply with the approved plan, in all respects, unless modified by subsequent written permit or order of the Fire Marshal. Plans and specifications shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity and detail to permit the Fire Marshal to determine the question of conformity with these regulations and shall include a plot plan showing type, location of the proposed buildings, structures, facilities and fire hydrant locations and access way, in relationship to the property lines, and all other buildings, structures and facilities proposed or existing on the premises. Approval of plans shall not be construed as to be a permit to violate any applicable law or regulation of the State, County, or fire district.

The following permit fees to cover plan review and inspection requirements are hereby adopted and become part of this ordinance:

A. See Section Chapter 3 of UBC of this code for fire code plan review changes.

B. Flammable and combustible liquid tanks.....$50

C. Temporary tents and air supported structures.....$50

Note: For permanent structures, see XIII-A above.

D. Special assembly.....$50

E. Plan review and inspection of automatic sprinkler systems in Group R, Division 3 structures.....$50

SECTION XIV REPEAL OF CONFLICTING ORDINANCES

All former ordinances or parts thereof conflicting or inconsistent with the provisions of this ordinance or of the Code or Standards hereby adopted are hereby repealed.

SECTION XV VALIDITY

The District hereby declares that should any section, paragraph, sentence or word of this ordinance or of the Codes or Standards hereby adopted be declared for any reason to be invalid, it is the intent of the District that it would have passed all other portions of this ordinance independent of the elimination herefrom of any such portion as may be declared invalid.

SECTION XVI DATE OF EFFECT

The Board of Directors of the Fire District finds and determines that it is necessary and expedient that the provisions of this ordinance go into effect forthwith for the preservation of the safety and health of the inhabitants of the Fire District for the reason that fire codes must be brought into conformance with State standards as soon as possible in order to maintain uniformity and comply with the recommended fire and safety standards set out by the Western Fire Chiefs Associaton, International Conference of Building Officials and the State of Oregon, and in order to ensure that the real property that is being developed in the Fire District is so constructed and maintained with adequate facilities and standards to meet these codes and thereby alleviate unnecessary fire hazards within the District.

PASSED by the District this _____ day of _____, 1986

APPROVED by the City/County this 3rd day of November, 1986

FIRE DISTRICT — PRESIDENT

City of Wilsonville
CITY or COUNTY — MAYOR/ADMINISTRATOR