

8. Use Group R, Residential Buildings:
- a. R-1 Structures less than 4 stories At start-up and shut-down;
 - b. R-1 Structures of 4 stories or more At all times while regulated equipment is in operation;
 - c. R-2 Structures At start-up and shut-down;
 - d. R-3 Structures None;
9. Use Group S, Storage At start-up and shut-down;
10. Use Group U, Utility and Miscellaneous The Code Official shall determine which of the above rules shall apply. Such determination shall be based upon the Use Group that the building or structure most nearly resembles.

"Public occupancy" shall mean open to public use by license or invitation. The term shall not mean occupancy by custodial, building maintenance, or security personnel, or occasional occupancy by employees, tenants, and their invitees after normal working hours.

C. Daily operator log required. A daily log shall be kept by all operators, showing the date and time each operator arrives on the job, with signature or initials. The log shall be kept in full view with certificate and license.

D. Use of apprentice operators. Operators may use assistants who have registered as apprentice operators. An apprentice operator shall not change any settings, make any adjustment, start, stop, work on, or repair equipment except in the presence of and under the direct supervision of a licensed operator. The licensed operator shall be directly responsible for the safe and lawful operation of any equipment where the operator's certificate and license are posted.

E. Operating procedures for process steam boilers. Start-up and shut-down procedures shall be posted in the boiler room. The certificate holder shall record in a log the operating conditions of the boiler at a minimum frequency at each day's start-up, at the mid-point of the daily operation and at the shut-down of the process steam boiler. The maximum time period between any two log entries by the certificate holder for a boiler in operation shall be six hours. Each log entry shall include as a minimum the date and time of the entry, the certificate holder's signature, and a checklist of the status of the safety features of the boiler to include as a minimum the boiler operating pressure and the water level in the sight glass. The low water cut-off shall be cycled a minimum of once each operator's shift, and the pressure relief valve shall be lift tested monthly." *Ord. Nos. 18095, 18438, 18887, 20572*

Section 3. That Title 59, Tulsa Revised Ordinances, Chapter 3 be and the same is hereby amended to read as follows:

“CHAPTER 3. ICC INTERNATIONAL FUEL GAS CODE, 2009 EDITION

Section 300 Adoption of the International Fuel Gas Code, 2009 Edition.

Section 301 Amendments to the ICC International Fuel Gas Code 2009.

Section 300. Adoption of the International Fuel Gas Code

A certain document, three (3) copies of which are on file in the office of the City Clerk of the City of Tulsa, Oklahoma, being marked and designated as the *ICC International Fuel Gas Code, 2009 Edition*, as published by the International Code Council, Inc. (ICC), is hereby adopted as an amendment to the Tulsa Revised Ordinances, hereinafter the "Mechanical Code," for the control of fuel gas piping systems, fuel gas utilization equipment, and related accessories located in buildings and structures in the City of Tulsa. Each and all of the terms, conditions, regulations, provisions, and penalties of the *ICC International Fuel Gas Code, 2009 Edition*, are hereby referred to, adopted and made a part of the Tulsa Revised Ordinances as if fully set out in this chapter, with its amendments, if any, as prescribed in Section 301 of this chapter and, as used in this Chapter 3, may be referred to as the "code."

Section 301. Amendments to the ICC International Fuel Gas Code 2009 Edition

The following provisions of the *ICC International Fuel Gas Code, 2009 Edition*, are hereby added, deleted, or amended to read as follows:

Chapter 1 - Administration

106.1 When Required--Amendatory. A contractor who desires to erect, install, enlarge, alter, repair, remove, convert, or replace a mechanical system, the installation of which is regulated by this code, or to cause such work to be done, shall first make application to the code official and obtain the required permit for the work.

Exception. Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day of the Office of Mechanical Inspection.

106.3 Application for permit--Amendatory. No mechanical permit shall be issued to any person, firm, limited liability company, or corporation until such person, firm, limited liability company, or corporation has received a Certificate of Registration appropriate for the work contemplated.

106.6.1 Work Commencing Before Permit Issuance--Deleted. Section 106.5.1 of the *ICC International Fuel Gas Code, 2009 Edition*, is intentionally deleted from this code.

106.6.2 Fee Schedule--Amendatory. Permit and inspection fees for all mechanical work shall be the same as set forth in Chapters 1 and 5 of Title 49, Tulsa Revised Ordinances.

108.4 Violation Penalties--Amendatory. Any person violating any of the provisions of this code shall be guilty of a misdemeanor offense and, upon conviction thereof, shall be

punished by a fine of not more than Five Hundred Dollars (\$500.00), excluding cost, fees, and assessments or by imprisonment in the City Jail for a period not exceeding ninety (90) days, or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

108.7.2 Authority to disconnect service utilities--Amendatory. Whenever the use of any mechanical equipment or apparatus within the City of Tulsa is determined by the code official to be imminently hazardous to life and safety, the code official shall give the owner or agent or permit holder or person in control of such equipment or apparatus written notice stating the defects of such equipment, and the code official shall immediately order that all utility service connected to such equipment or apparatus be disconnected. The code official shall immediately attach to such equipment or apparatus a tag or notice stating, "This equipment is imminently hazardous and its use has been prohibited by the Tulsa Mechanical Inspector." It shall be unlawful for any person, firm, limited liability company, or corporation, or their agents or servants, to remove such notice until the imminent hazard has been removed and approval has been given by the code official. The decisions of the code official prohibiting the use of such equipment and ordering the immediate disconnection of any utility services attached to such equipment shall not be stayed during the pendency of any appeal from the code official's determination.

109.0 Means of Appeal--Amendatory. Appeals of orders, decisions or determinations made by the code official relative to the application and interpretation of this code, shall be made to the Board of Appeals as established and provided in Title 51, Chapter 1, Tulsa Revised Ordinances.

307.2.1 Condensate drains. Where condensing appliances are in locations subject to freezing conditions, the condensate drain line must be protected from freezing in an approved manner and in accordance with manufacturer installation instructions.

308.1 Scope. This section shall govern the reduction in required clearances to combustible materials, including gypsum board, and combustible assemblies for chimneys, vents, appliances, devices and equipment. Clearance requirements for air-conditioning equipment and central heating boilers and furnaces shall comply with Section 308.3 and 308.4.

310.1.1 CSST. Exception: Special corrugated stainless steel gas products or systems that have been designed, manufactured and listed for installation without direct bonding shall be permitted to be installed in accordance with the manufacturer's installation instructions.

402.1. General Considerations--Amendatory. Piping systems shall be of such size and so installed as to provide a supply of gas sufficient to meet the maximum demand and supply gas to each appliance inlet at not less than the minimum supply pressure required by the appliance, but not less than 1" to the first connected appliance or regulator.

Tables 402.4(6), 402.4(7), 402.4(8), 402.4(9), 402.4(10), 402.4(11), and 402.4(12) have been stricken from the code.

403.5.4.1 Protection against physical damage--Added. Gas piping other than steel piping installed less than four (4) inches from roof decking shall be protected against physical damage by an approved method.

404.8.1 Insulated union on building riser. All underground gas piping systems shall have an insulated union installed above ground level before the service enters the building.

404.9.1 Cathodic Protection Requirements--Added.

1. All steel underground service and distribution lines shall be protected by maintaining a minimum negative voltage of 0.85 to a copper-copper sulfate reference electrode.
2. Cathodic protection current sources shall be five (5) pound magnesium or zinc sacrificial anodes packaged in suitable anode backfill manufactured for this specific service.
3. The anode shall be buried deeper than the piping to be protected.
4. Anode lead wires shall be attached to the piping at a suitable above-ground location by one of the following methods:
 - a. Thermite welding--limited to a fifteen (15) gram cartridge. Brazing by any other method shall be prohibited;
 - b. Soldering;
 - c. Conventional ground-water connections; or
 - d. The property owner shall be notified in writing as to the type and amount of protection which has been installed and that future maintenance of the protection system will be the responsibility of the property owner. Any dielectric fitting removed during repair or modification of the system shall be reinstalled in new condition.

404.10. Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches (457 mm) below grade, except as provided for in Section 404.10.1.

Exception: Where a minimum depth of 18 inches (457 mm) of cover cannot be provided, the pipe shall be installed in conduit or bridged (shielded).

404.10.1.2 Work on Consumer's Gas Piping Containing Unmeasured Gas--Added. Repair, alterations, relocations, or any other work conducted on any portion of a consumer's gas piping, containing unmeasured gas, shall only be performed by a qualified person or installation agency authorized to do such work. When such work is done, the gas utility company shall be notified. The movement, connection, or disconnection of gas

meters shall only be performed by gas utility company employees or others authorized by the gas utility company.

404.10.1.3 Gas Piping for Unmeasured Gas--Added. For gas pressure above three (3) psig, the line shall be tested at ninety (90) psig.

404.10.2. Separation of gas piping from other piping systems. Gas pipe and any other piping systems shall be separated by 18 inches (457 mm) of undisturbed or compacted earth.

404.16 Prohibited devices placed inside gas piping or fittings.

Second exception. An approved fitting or device where the gas piping system has been sized to accommodate the pressure drop of the fitting or device.

406.1 General--Amendatory. The gas piping system shall be tested prior to connecting any appliances. Portions of the gas piping system installed in concealed locations shall be tested before the piping is completely concealed. At least one appliance shall be connected prior to final release of the gas meter.

406.4.1 Test pressure. The test pressure to be used shall be no less than 1 1/2 times the proposed maximum working pressure, but not less than 15 psig irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

Exception: Residential gas repairs shall be tested to a pressure of one and one-half (1-½) times the system working pressure, but not less than three (3) psi (20-69 kpa) on a five (5) psi (34.47 kpa) gauge registered in one-tenth (0.10) pound increments or ten (10) psi (68.95 kpa) on a thirty (30) psi (206.85 kpa) gauge registered in one (1) pound increments.

406.7 Purging: The purging of piping shall be in accordance with Sections 406.7.1 through 406.7.3

Section 406.7.1 Piping systems required to be purged outdoors. The purging of piping systems shall be in accordance with the provisions of Sections 406.7.1.1 through 406.7.1.4 where the piping system meets either of the following:

- A. The design operating gas pressure is greater than 2 psig (13.79 kPa).
- B. The piping being purged contains one or more sections of pipe or tubing meeting the size and length criteria of Table 406.7.1.1

Section 406.7.1.1 Removal from service. Where existing gas piping is opened, the section that is opened shall be isolated from the gas supply and the line pressure vented in accordance with Section 406.7.1.3. Where gas piping meeting the criteria of Table

406.7.1.1 is removed from service, the residual fuel gas in the piping shall be displaced with an inert gas.

- A. Table 406.7.1.1 Size and length of piping. The following measurements for table 406.7.1.1 were added. Footnote "a" in relation to Nominal Pipe Size (inches) states CSST EHD size of 62 is equivalent to nominal 2-inch pipe or tubing size.
1. When nominal pipe size (inches) is greater than or equal to 2 ½ but less than 3, the length of piping (feet) is greater than 50.
 2. When nominal pipe size (inches) is greater than or equal to 3 but less than 4, the length of piping (feet) is greater than 30.
 3. When nominal pipe size (inches) is greater than or equal to 4 but less than 6, the length of piping (feet) is greater than 15.
 4. When nominal pipe size (inches) is greater than or equal to 6 but less than 8, the length of piping (feet) is greater than 10.
 5. When nominal pipe size (inches) is greater than 8, the length of piping (feet) is any length. For SI: 1 inch is equal to 25.4 mm; 1 foot is equal to 304.8 mm

Section 406.7.1.2 Placing in operation. Where gas piping contains air and meeting the criteria of Table 406.7.1.1 is placed in operation, the air in the piping shall first be displaced with an inert gas. The inert gas shall then be displaced with fuel gas in accordance with Section 406.7.1.3.

Section 406.7.1.3. Outdoor discharge of purged gases. The open end of a piping system being pressure vented or purged shall discharge directly to an outdoor location. Purging operations shall comply with all of the following requirements:

- A. The point of discharge shall be controlled with a shutoff valve.
- B. The point of discharge shall be located at least 10 feet (3048 mm) from sources of ignition, at least 10 feet (3048 mm) from building openings and at least 25 feet (7620 mm) from mechanical air intake openings.
- C. During discharge, the open point of discharge shall be continuously attended and monitored with a combustion gas indicator that complies with Section 406.7.1.4.
- D. Purging operations introducing fuel gas shall be stopped when 90 percent fuel gas by volume is detected within the pipe.
- E. Persons not involved in the purging operations shall be evacuated from all areas within 10 feet (3048 mm) of point of discharge.

Section 406.7.1.4. Combustion gas indicator. Combustion gas indicators shall be listed and shall be calibrated in accordance with the manufacturer's instructions. Combustion gas indicators shall numerically display a volume scale from zero percent to 100 percent in 1 percent or smaller increments.

Section 406.7.2 Piping systems allowed to be purged indoors or outdoors. The purging of piping systems shall be in accordance with the provisions of Section 406.7.2.1 where the piping system meets both of the following:

- A. The design operating gas pressure is 2 psig (13.79 kPa) or less.
- B. The piping being purged is constructed entirely from pipe or tubing not meeting the size and length criteria of Table 406.7.1.1

Section 406.7.2.1 Purging Procedure. The piping system shall be purged in accordance with one or more of the following:

- A. The piping shall be purged with fuel gas and shall discharge to the outdoors.
- B. The piping shall be purged with fuel gas and shall discharge to the indoors or outdoors through an appliance burner not located in a combustion chamber. Such burner shall be provided with a continuous source of ignition.
- C. The piping shall be purged with fuel gas and shall discharge to the indoors or outdoors through a burner that has a continuous source of ignition and that is designed for such purpose.
- D. The piping shall be purged with fuel gas that is discharged to the indoor or outdoors, and the point of discharge shall be monitored with a listed combustible gas detector in accordance with Section 406.7.2.2. Purging shall be stopped when fuel gas is detected.
- E. The piping shall be purged by the gas supplier in accordance with written procedures.

Section 406.7.2.2 Combustible gas detector. Combustible gas detectors shall be listed and shall be calibrated or tested in accordance with the manufacturer's instructions. Combustible gas detectors shall be capable of indicating the presence of fuel gas.

Section 406.7.3 Purging appliances and equipment. After the piping system has been placed in operation, appliances and equipment shall be purged before being placed into operation.

Section 410.4 Excess flow valve. Where automatic excess flow valves are installed, they shall be listed for the application and shall be sized and installed in accordance with the manufacturer's instructions

411.1.1 Gas Piping in Mobile Home and Travel Trailer Parks--Added.

411.1.1.1 General--Added. Gas piping systems in mobile home and travel trailer parks, extending from the outlet of a meter set assembly or the outlet of a service regulator, when a meter is not provided, to the terminal of the gas riser at each trailer site, shall only be done a by licensed heating or mechanical contractors and shall comply with provisions of this code.

411.1.1.2 Prohibited Location--Added. Piping shall not be installed under trailer sites and adjacent patio slabs, when an enclosed foundation is used beneath the site.

411.1.1.3 Location, Protection and Sizing of Riser--Added. The gas riser to each trailer site shall be placed in the rear one-third (a) section of the site, within eighteen (18) inches of the roadside wall of the trailer (i.e., the right side of the trailer when viewing the tongue of the trailer). It shall be located and protected or supported so as to minimize the likelihood of damage by moving vehicles. The minimum size of the gas piping outlet at such a site shall be three-fourths (¾) inch for other than undiluted, liquefied petroleum gases.

411.1.1.4 Location of Shut-off Valves--Added.

- A. Outlets for the individual trailers and gas piping to any building supplied by the system shall be provided with a readily accessible, approved valve which cannot be locked in the open position.
- B. A readily accessible valve shall be provided near the point of gas delivery for shutting off the entire trailer park system. The valve provided by the serving gas supplier may be considered acceptable for this purpose, provided it is readily accessible.

411.1.1.5 Demand Factors--Added.

- A. The hourly volume of gas required for any trailer site gas outlet, or any section of a trailer park gas piping system, shall be computed from Table 409.6.6.
- B. Other gas equipment or appliances, other than trailer site outlets, shall be computed at the manufacturer's maximum cubic feet per hour input rating and shall be added to the figures provided in the following table:

| TABLE 411.1.1.6. DEMAND FACTORS FOR CALCULATING GAS PIPING SYSTEMS IN MOBILE HOME OR TRAILER PARKS | |
|---|---------------------------------------|
| No. of Trailer Sites | BTU per Hour-per Trailer Sites |
| 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 |

404.1.1.7 Connection of Gas Service Piping--Added.

B. Mobile homes shall be connected to the gas piping system with rigid pipe or semi-rigid tubing. The connection between the gas riser and the mobile home shall be a minimum of three-quarters (¾) inch inside diameter.

503.6.4.1.1 Location--Added. Chimney or vent termination openings shall be located a minimum of five (5) feet (1524 millimeters) from the lot line unless otherwise approved.

631.1 Boiler Standards--Amendatory. Boilers and their control systems shall be designed and constructed in accordance with the requirements of one or more of the following standards: *American National Standards Institute* (ANSI) Standard, Reference Number Z21.13, *American Society of Mechanical Engineers* (ASME) Boiler and Pressure Vessel Code Sections 1, 4, 6, 7, 8 (Divisions 1 and 2), and 9, ASME CSD-1, the *Oklahoma Boiler and Pressure Vessel Safety Act*, 40 O.S.Supp.2002, §§ 141.1, *et seq.*, as amended, and *National Fire Protection Association* (NFPA) Standard Reference Numbers 8501, NFPA 8502, NFPA 8504, UL 726, UL 795 or UL 834, as amended.

631.5 Periodic Inspection--Added. All boilers and unfired pressure vessels subject to the provisions of this code shall be inspected at least once annually by the code official or by an agency acceptable to the code official.

Exception. Heating boilers or pressure vessels which are located in one- and two-family dwelling units.

Chapter 8 Referenced Standards--Amendatory. *ICC International Fuel Gas Code*, 2009 Edition, IFGC/IFGS Chapter 8, entitled "Referenced Standards" is amended to delete *International Code Council* (ICC) Standard Reference Number EC-2009 and *National Fire*

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Protection Association (NFPA) Standard Reference Number 70, as amended, shall be added in substitution of EC-2009."

Ord. No. 20572

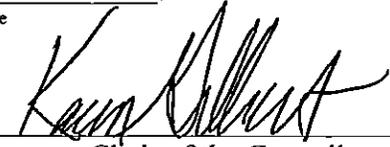
Section 4. REPEAL OF CONFLICTING ORDINANCES. That all ordinances or parts of ordinances in conflict herewith be and the same are hereby expressly repealed.

Section 5. SEVERABILITY. If any section, subsection, paragraph, subparagraph, sentence, clause or phrase of this Ordinance shall be declared invalid for any reason whatsoever, such decision shall not affect the remaining portions of this Ordinance, which shall remain in full force and effect, and to this end, the provisions of this Ordinance are hereby declared to be severable.

Section 6. EMERGENCY CLAUSE. That an emergency is hereby declared to exist for the preservation of the public peace, health and safety, by reason whereof this Ordinance shall take effect immediately from and after its passage, approval and publication.

ADOPTED by the Council: _____
Date

DEC 12 2013



Chair of the Council

ADOPTED as an emergency measure: _____
Date

Chair of the Council

OFFICE OF THE MAYOR

Received by the Mayor: _____, at _____
Date Time

Dewey F. Bartlett, Jr., Mayor

By _____
Secretary

APPROVED by the Mayor of the City of Tulsa, Oklahoma: JAN 08 2014,
Date

at _____
Time

Dewey F. Bartlett, Jr.
Mayor

(Seal)
ATTEST:

Anthony Mays

CITY CLERK City Clerk



APPROVED AS TO FORM AND LEGALITY:

Paul E. Melia 1/10/14

City Attorney rve

