



OKLAHOMA UNIFORM BUILDING CODE COMMISSION RULES

748 - Uniform Building Code Commission

Chapter 20 - Adopted Codes

Subchapter 11 - International Fuel Gas Code®, 2009 Edition

(IFGC®, 2009), 748:20-11-1 through 748:20-11-10

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Chapter 20 - Adopted Codes

[Authority: 59 O.S. 59 § 1000.23]
[Source: Codified 7-15-11]

Subchapter 11 - IFGC® 2009

748:20-11-1. Adoption of International Fuel Gas Code®, 2009 Edition (IFGC® 2009)

The Oklahoma Uniform Building Code Commission (the Commission) hereby adopts the International Fuel Gas Code®, 2009 Edition as amended and modified in this subchapter as the minimum code for commercial fuel gas construction in the State of Oklahoma pursuant to 59 O.S. 1000.23.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12]

748:20-11-2. Effect of Adoption

The International Fuel Gas Code®, 2009 Edition (IFGC® 2009), as amended and revised by these rules, are hereby established and adopted as the statewide minimum standards for commercial fuel gas construction in Oklahoma pursuant to 59 O.S. § 1000.23, and may only be amended or altered by other jurisdictions pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12]

748:20-11-3. IFGC® 2009 Appendices

(a) None of the appendices of the IFGC® 2009 have been adopted by the Commission for inclusion in the minimum standards for commercial fuel gas commercial construction in the State of Oklahoma.

(b) Appendices A through D are not adopted as the minimum standards for commercial fuel gas construction within the State of Oklahoma. However, other jurisdictions within this State may adopt any or all of said appendices in accordance with 59 O.S. § 1000.29.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12]

748:20-11-4. IFGC® 2009 Provisions Adopted and Modified

All chapters and provisions within chapters, including exceptions, of the IFGC® 2009 not specifically addressed within these rules as being modified, deleted, moved or removed are hereby adopted without modification as the minimum standards for commercial fuel gas construction within the State of Oklahoma pursuant to 59 O.S. § 1000.23. Chapters and provisions within chapters, including exceptions adopted with modifications are specifically addressed in these rules.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12]

748:20-11-5. Participation in Federal Programs and/or Federally Funded or Financed Projects

In order to maximize federal financial aid, assistance, participation, financing and/or funding in any public project(s) and/or federal financial aid, participation, funding for and participation in any federal program(s) by the State of Oklahoma, its agencies, public trusts and instrumentalities, or by any Oklahoma municipalities and other political subdivisions, that receive financial aid, assistance, participation, financing and/or funding for and participate in any federal program(s), the State of Oklahoma, its agencies and instrumentalities, and any Oklahoma municipalities and other political subdivisions, may cooperate with the United States

Government and any agency or instrumentality thereof, in the manner authorized and provided by federal law and regulation and in doing so may perform all necessary functions and take all necessary actions for accomplishing such federal purposes and programs, including but not limited to, following and/or complying with federal laws, regulations and/or requirements arising from or related to federal financial aid, assistance, participation, financing and/or funding, in the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, improvement, expansion, operation, maintenance, removal, and demolition of buildings and structures or any appurtenances attached to such buildings or structures, notwithstanding any provisions of any and all uniform building codes and standards adopted by the Oklahoma Uniform Building Code Commission to the contrary.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12]

748:20-11-6. IFGC® 2009 Chapter 1 Scope and Administration

Chapter 1 the Oklahoma adopted IFGC® 2009, includes the following Preamble at the very beginning of the chapter:

(1) Pursuant to 59 O.S. § 1000.23, the Uniform Building Code Commission has adopted the International Fuel Gas Code®, 2009 Edition (IFGC® 2009) as amended and revised by the Commission, as the minimum standards to be used by all entities for commercial fuel gas construction in jurisdictions throughout the State of Oklahoma. However, the Commission's adoption of Chapter 1 "Scope and Administration" of the IFGC® 2009 is for continuity purposes and the Commission's adoption of Chapter 1 recognizes the methods of best practice in fully implementing the minimum standards for commercial fuel gas construction.

(2) All provisions of the adopted IFGC® 2009, including Chapter 1, as amended and revised by the Commission, are hereby established and adopted as the statewide minimum standards for commercial fuel gas construction in Oklahoma pursuant to 59 O.S. § 1000.23, which may only be amended or altered pursuant to Oklahoma law and the administrative rules of the Oklahoma Uniform Building Code Commission as set forth in Title 748, Chapter 15 of the Oklahoma Administrative Code. However, the provisions of Chapter 1 adopted herein are only intended to be in force and effect to the extent that the respective provisions do not conflict with State law or the lawful exercise of code administration and enforcement jurisdiction by entities empowered to do so pursuant to applicable law.

(3) The Commission's adoption of Chapter 1 in this manner is made with the recognition that the legal authority granting state and local code administration and enforcement jurisdictions the power and discretion to administer and enforce codes arises from Oklahoma laws governing those jurisdictions. Furthermore, the Commission also recognizes that many state and local code administration and enforcement jurisdictions have already created, or have the lawful authority to create, departments, offices and administrative policies pursuant to various applicable laws and other adopted model codes with "Scope and Administration" provisions similar to Chapter 1 of the adopted IFGC® 2009

(4) This limited adoption of Chapter 1 is made in recognition of the authority and discretion possessed by jurisdictions to administer and enforce building codes. Exercising such authority and jurisdiction in a manner inconsistent with Chapter 1 must be supported by Oklahoma law. Code administration and enforcement jurisdictions shall not use the Commission's limited adoption of Chapter 1 to circumvent the remainder of the requirements established by the Oklahoma adopted IFGC® 2009 and the Commission will strongly oppose any such practice.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12]

748:20-11-7. IFGC® Chapter 3 General Regulations

Chapter 3 of the IFGC® 2009 is adopted with the following modifications:

(1) Section 307.2.1 Condensate drains. This section has been added to the code to require condensate drains to be protected from freezing. This section shall read: 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.

(2) Section 308.1 Scope. This section has been modified to include gypsum board as a combustible material. This section has been modified to read: 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.

(3) Section 310.1.1 CSST. This section has been modified to add an exception to allow for installation when using new special CSST. This exception shall read: 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.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12]

748:20-11-8. IFGC® Chapter 4 Gas Piping Installations

Chapter 4 of the IFGC® 2009 is adopted with the following modifications:

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

(2) Section 403.4.3 Copper and brass. This section has been modified to prohibit the use of copper or brass piping or tubing for natural gas installations. This section has been modified to read: Copper and brass piping and tubing shall be prohibited for natural gas installations, but shall be allowed for liquefied petroleum gas installations.

(3) Section 404.8.1 Insulated union on building riser. This section has been added to the code as a means to isolate the gas piping from the grounding. It shall read: All underground gas piping systems shall have an insulated union installed above ground level before the service enters the building.

(4) Section 404.10. Minimum burial depth. This section has been modified to change the minimum burial depth from 12 inches (305 mm) to 18 inches (457 mm) and to allow for an exception when there is no ability to meet that minimum depth. This section has been modified to read: 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).

(5) Section 404.10.2. Separation of gas piping from other piping systems. This section has been added to the code as a means to prevent damage to other systems that may have been buried in the same ditch. This section shall read: Gas pipe and any other piping systems shall be separated by 18 inches (457 mm) of undisturbed or compacted earth.

(6) Section 404.16 Prohibited devices. This section was modified to add a second exception to allow for new technology to be utilized. The second exception shall read: An approved fitting or device where the gas piping system has been sized to accommodate the pressure drop of the fitting or device.

(7) The International Code Council Emergency Amendment dated September 27, 2010 has been adopted. This amendment replaces in its entirety Sections 406.7 through Section 406.7.3 of the IFGC®. These sections shall now read:

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

(B) 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:

- (i) The design operating gas pressure is greater than 2 psig (13.79 kPa).
- (ii) 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

(C) 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.

(D) 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.

- (i) 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.
- (ii) 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
- (iii) 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.
- (iv) 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.
- (v) 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.

(E) 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.

(F) 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:

- (i) The point of discharge shall be controlled with a shutoff valve.
- (ii) 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.
- (iii) 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.
- (iv) Purging operations introducing fuel gas shall be stopped when 90 percent fuel gas by volume is detected within the pipe.
- (v) Persons not involved in the purging operations shall be evacuated from all areas within 10 feet (3048 mm) of point of discharge.

(G) 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.

(H) 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:

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

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

- (i) The piping shall be purged with fuel gas and shall discharge to the outdoors.
- (ii) 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.
- (iii) 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.
- (iv) 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.
- (v) The piping shall be purged by the gas supplier in accordance with written procedures.

(J) 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.

(K) 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.

(8) Section 410.4 Excess flow valve. This section has been added to allow for new technologies in use in the field. This section shall read: 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.

[Source: Added at 29 Ok Reg 1659, eff 11-1-12; Amended at 31 Ok Reg 1469, eff 9-12-14]

748:20-11-9. IFGC® Chapter 6 Specific Appliances

Chapter 6 of the IFGC® 2009 is adopted with the following modifications: Section 621.4 Prohibited locations. This section has been modified to provide definitions for Groups A, E and I. This section has been modified to read: Unvented room heaters shall not be installed within occupancies in Groups A, E, and I. The location of unvented room heaters shall also comply with Section 303.3 (Use Groups A = Assembly, E = Educational and I = Institutional).

[Source: Added at 29 Ok Reg 1659, eff 11-1-12]

748:20-11-10. IFGC® Chapter 8 Referenced Standards

Chapter 8 of the IFGC® 2009 is adopted with the following modifications:

(1) The reference to the International Building Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IBC-09 International Building Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(2) The reference to the International Energy Conservation Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma by the State Fire Marshal until replaced by an adoption done through the Uniform Building Code Commission". This section has been modified to read: IECC-06 International Energy Conservation Code® as adopted and modified by the State of Oklahoma through the State Fire Marshal until replaced by an adoption done through the Uniform Building Code Commission.

(3) The reference to the International Fire Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IFC-09 International Fire Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(4) The reference to the International Mechanical Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IMC-09 International Mechanical Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(5) The reference to the International Plumbing Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IPC-09 International Plumbing Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(6) The reference to the International Residential Code® has been modified to include after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section has been modified to read: IRC-09 International Residential Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

(7) The referenced standard for NFPA 70® National Electrical Code® has been modified to change the edition year from 2008 to 2011 and add after the title the words "as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission". This section shall now read: 70-11 National Electrical Code® as adopted and modified by the State of Oklahoma through the Uniform Building Code Commission.

[Source: Added at 31 Ok Reg 2469, eff 9-12-14]