

Exhibit F

Recommended Amendments to the 2018 International Fuel Gas Code

City of Amarillo, Texas

The following sections, paragraphs, and sentences of the 2018 International Fuel Gas Code are hereby amended as follows: Standard type is text from the IFGC. Underlined type is text inserted. ~~Lined through type is deleted text from IFGC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2015 edition of the code and a triple asterisk identifies a new or revised amendment with the 2018 code.

****Section R101.1; change to read as follows:**

R101.1 Title. These regulations shall be known as the Fuel Gas Code of the City of Amarillo hereinafter referred to as "this code."

(Reason: Standard insertion point: [insert] to assist with local adoption.)

*****Section 101.2**

{Local amendments to Section 101.2 may be necessary to correspond with the State Plumbing Licensing Law}

*****Section 102.2; add an exception to read as follows:**

Exception: Existing dwelling units shall comply with Section 621.2.

(Reason: Previous code provisions made unvented heater provisions retroactive except as provided for in local amendment. This amendment and amendment to IFGC 621.2 better clarify what the code already states: existing systems may stay unless considered unsafe)

*****Section 102.8; change to read as follows:**

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 8 and such codes, when specifically adopted, and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Section 102.8.1 and 102.8.2.

102.8.1 Conflicts. ~~Where the differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements.~~ *{Existing text to remain}*

102.8.2 Provisions in referenced codes and standards. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 shall mean the Electrical Code as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes)

****Section 106.6; Amend Sections 106.6.1 thru 106.6.3 to read as follows:**

106.6.1 Work commencing before permit issuance. Any person who commences any work on a mechanical system before obtaining the necessary permits shall be subject to fees as provided in Chapter 4-1 of the City of Amarillo Municipal Code of Ordinances.

Section 106.6.2 Fee schedule. The fees shall be as provided in Chapter 4-1, Article I, Division 4, Section 4-1-40 of the City of Amarillo Municipal Code of Ordinances.

Section 106.3.3. *{Delete section}*

(Reason: Established fees per Chapter 4-1 of the City of Amarillo Municipal Code)

****Section 108.4; delete section.**

(Reason: Established fees per Chapter 4-1 of the City of Amarillo Municipal Code)

****Section 108.5; Amend Section 108.5 to read as follows:**

108.5 Stop work orders. Upon notice from the Code Official that plumbing work that is being performed contrary to the provisions of this code or in a dangerous or unsafe manner, such work shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's authorized agent, or to the person doing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the Code Official shall not be required to give a written notice prior to stopping the work. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for a fine as specified in the City of Amarillo Municipal Code of Ordinances.

(Reason: Established fees per Chapter 4-1, Article I, Division 1, Section 4-1-1 thru 4-1-4 of the City of Amarillo Municipal Code)

*****Section 306.3; change to read as follows:**

[M] 306.3 Appliances in attics. Attics containing appliances shall be provided . . . *{Bulk of paragraph unchanged}* . . . side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance. As a minimum, for access to the attic space, provide one of the following: If access to the attic space is provided by more than an access opening, any of the following items shall be provided:

- ~~1. A permanent stair.~~
- ~~2. 1. A pull-down stair with a minimum 300 lb. (136 kg) capacity.~~
- ~~3. 2. An access door from an upper floor level.~~

Exceptions:

- ~~1. The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.~~
- ~~2. Where the passageway is not less than...{Bulk of section to read the same}~~

(Reason: To provide a safe means of accessibility to appliances in attics and to allow for different types of construction limitations. Consistent with regional amendment to IMC 306.3.)

*****Section 306.5; change to read as follows:**

[M] 306.5 Equipment and Appliances on Roofs or Elevated Structures. Where equipment requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access, an interior or exterior means of access shall be provided. Exterior ladders providing roof access need not extend closer than 12 feet (2,438 mm) to the finish grade or floor level below and shall extend to the equipment and appliances' level service space. Such access shall . . . *{Bulk of section to read the same}* . . . on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope) ... *{Remainder of text unchanged}*.

(Reason: To assure safe access to roof appliances. Consistent with IMC amendments)

*****Section 306.5.1; change to read as follows:**

[M] 306.5.1 Sloped roofs. Where appliances, equipment, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1,067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the International Building Code.

(Reason: To assure safe access to roof appliances. Consistent with IMC amendments)

****Section 307.5; amend to read as follows:**

307.5 Auxiliary drain pan. Category IV condensing appliances shall have an auxiliary drain pan where damage to any building component will occur as a result of stoppage in the condensate drainage system or failure of a condensate pump. These pans shall be installed in accordance with the applicable provisions of Section 307.2.3 item (1.) of the 2015 International Mechanical Code and be provided under condensate pumps.

****Section 307.6; amend to read as follows:**

307.6 Condensate Pumps. Condensate pumps located in uninhabitable space, such as attics and crawl spaces, shall be connected to the appliance or equipment served such that when the pump fails, the appliance or equipment will be prevented from operating. Pumps shall be installed in accordance with the manufacturer's instructions and shall not prevent the operation of fuel-fired appliances.

*****Section 401.5; add a second paragraph to read as follows:**

~~Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:~~

"WARNING
1/2 to 5 psi gas pressure
Do Not Remove"

~~(Reason: To protect homeowners and plumbers)~~

*****Section 404.12; change to read as follows:**

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of ~~42~~ 18 inches (~~305~~ 458 mm) top of pipe below grade, except as provided for in Section 404.12.1.

404.12.1 Delete in its entirety

~~(Reason: To provide increased protection to piping systems and address reference number change)~~

*****Section 406.4; change to read as follows:**

406.4 Test pressure measurement. Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made. ~~Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.~~

~~(Reason: To require the use of more accurate diaphragm gauges. Spring gauges do not provide accurate measurement below approximately 17 psig.)~~

*****Section 406.4.1; change to read as follows:**

406.4.1 Test pressure. The test pressure to be used shall be no less than ~~4 1/2 times the proposed maximum working pressure, but no less than 3~~ 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge, 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. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 1/2"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 1/2"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds

200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing.

(Reason: To provide for lesser pressures to coordinate with the use of more accurate diaphragm gauges)

*****Section 409.1; add Section 409.1.4 to read as follows:**

409.1.4 Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an approved termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.

(Reason: To provide proper security to CSST valves. These standards were established in this region in 1999 when CSST was an emerging technology)

*****Section 410.1; add a second paragraph and exception to read as follows:**

Access to regulators shall comply with the requirements for access to appliances as specified in Section 306.

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

(Reason: To require adequate access to regulators)

****Section 412.1; amend to read as follows:**

412.1 General. Motor fuel-dispensing facilities for LP-gas fuel shall be in accordance with Railroad Commission of Texas rules, this section and the International Fire Code. The operation of LP-gas motor fuel-dispensing facilities shall be regulated by the International Fire Code and in accordance with Railroad Commission of Texas rules.

****Section 413.1; amend to read as follows:**

413.1 General. Motor fuel-dispensing facilities for CNG fuel shall be in accordance with Railroad Commission of Texas rules, this section and the International Fire Code. The operation of CNG motor fuel-dispensing facilities shall be regulated by the International Fire Code and in accordance with Railroad Commission of Texas rules.

*****Section 621.2; add exception as follows:**

621.2 Prohibited use. One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.

Exception: Existing approved unvented heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when approved by the Code Official unless an unsafe condition is determined to exist as described in Section 108.7.

(Reason: Gives the Code Official discretion.)

END