Recommended Amendments to the 2003 International Fuel Gas Code

North Central Texas Council of Governments region

The following sections, paragraphs, and sentences of the 2003 International Fuel Gas Code are hereby amended as follows: Standard type is text from the IFGC. <u>Underlined type is text inserted</u>. Lined through type is deleted text from IFGC. A double asterisk at the beginning of a section identifies an amendment carried over from the 2000 edition of the code and a triple asterisk identifies a new amendment with the 2003 code.

**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, <u>when specifically adopted</u>, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. <u>Whenever amendments have been adopted to the referenced codes and standards</u>, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC *Electrical Code* shall mean the Electrical Code as adopted.

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

***Section 304.10; change to read as follows:

304.10 Louvers and grilles. The required size of openings...{bulk of paragraph unchanged}...to provide the free area specified. Where the design and free area are not known, it shall be assumed that wood louvers will have 25-percent free area and metal louvers and grilles will have 75-50-percent free area. {Remainder of section unchanged.}

(Reason: This is the generally accepted practice in the region.)

*** Section 304.11; change Exception 8 to read as follows:

304.11 Combustion air ducts. {Bulk of section unchanged.}

8. Combustion air intake openings located on the exterior of a building shall have the lowest side of such openings located not less than 12 inches (305 mm) vertically from the adjoining grade level or the manufacturer's recommendation, whichever is more stringent.

(Reason: To recognize the manufacturer's installation requirements.)

**Section 305.5; delete.

(Reason: This provision does not reflect standard practice in this area. Consistent with regional amendment to IMC 304.6.)

**Section 305.7; change to read as follows:

305.7 Clearances from grade. Equipment and appliances installed at grade level shall be supported on a level concrete slab or other approved material extending <u>a minimum of 3 inches (76 mm)</u> above adjoining grade or shall be suspended a minimum of 6 inches (152 mm) above adjoining grade.

(Reason: Consistent with current local practice. Consistent with regional amendment to IMC 304.9.)

**Section 306.3; change to read as follows:

306.3 Appliances in attics. Attics containing appliances requiring access shall be provided ... {bulk of paragraph unchanged} ... from the opening to the equipment. The passageway shall have continuous <u>unobstructed</u> solid flooring not less than 24-30 inches (610 762 mm) wide. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the equipment. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), <u>or larger</u> where such dimensions are <u>not</u> large enough to allow removal of the largest appliance. As a minimum, access to the attic space shall be provided by one of the following:

- 1. <u>A permanent stair.</u>
- 2. <u>A pull down stair.</u>
- 3. 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. *(Delete Exception #2.)*

(Reason: To provide a safe means of accessibility. Consistent with regional amendment to IMC 306.3.)

**Section 306.5; change to read as follows:

306.5 <u>Equipment and</u> appliances on roofs or elevated structures. Where <u>equipment and</u> appliances requiring access are installed on roofs or elevated structures at a <u>an aggregate</u> height exceeding 16 feet (4877 mm), such access shall be provided by a permanent approved means of access., the extent of which shall be from Permanent exterior ladders providing roof access need not extend closer than 8 feet

(2438 mm) to the finish grade or floor level <u>below and shall extend</u> to the <u>equipment and</u> appliance's level service space. Such access shall . . . {*bulk of section to read the same*}. . . on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope).

A receptacle outlet shall be provided at or near the equipment and appliance location in accordance with the Electrical Code.

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

**Add Section 306.5.1.1 to read as follows:

306.5.1.1 Catwalk. On roofs having slopes greater than 4 units vertical in 12 units horizontal, 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 the working platform at the appliance.

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

**Add Section 306.7 to read as follows:

306.7 Water heaters above ground or floor. When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

306.7.1. Whenever the mezzanine or platform is not adequately lighted or access to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with Section 306.3.1.

(Reason: To provide safe access to water heaters. Consistent with regional amendments to IPC 502.5 and IMC 306.7.)

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

Both ends of each section of medium pressure corrugated stainless steel tubing (CSST) 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:

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

(Reason: To protect homeowners and plumbers.)

**Section 402.3; add an exception to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2".

(Reason: Pipe less than 1/2" has a history in this region of causing whistling.)

**Section 404.6; change to read as follows:

404.6 Piping in solid floors. Piping in solid floors shall be laid in channels in the floor and covered in a manner that will allow access to the piping with a minimum amount of damage to the building. Where such piping is subject to exposure to excessive moisture or corrosive substances, the piping shall be protected in an approved manner. As an alternative to installation in channels, the piping shall be installed in <u>accordance with Section 404.11</u> a casing of schedule 40 steel, wrought iron, PVC or ABS pipe with tightly scaled ends and joints. Both ends of such casing shall extend not less than 2 inches (51 mm) beyond the point where the pipe emerges from the floor.

(Reason: Referencing Section 404.11 provides CSST piping with outside venting.)

**Section 404.9; change to read as follows:

404.9 Minimum burial depth. Underground piping systems shall be installed a minimum depth of $\frac{12}{18}$ inches ($\frac{305}{458}$ mm) below grade, except as provided for in Section 404.9.1.

(Reason: To provide increased protection to piping systems.)

***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. For tests requiring a pressure of 3 psig, mechanical gauges used to measure test pressures shall utilize a dial with a minimum diameter of three and one half inches (3 ½"), 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, mechanical gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½"), a set hand, a minimum of 2/10 pound incrementation and a pressure 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 not less than one and one-half times the proposed maximum working pressure, but not 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 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.

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

***Section 406.4.2; change to read as follows:

406.4.2 Test duration. Test duration <u>shall be held for a length of time satisfactory to the Code Official,</u> <u>but in no case for not less than fifteen (15) minutes. For welded piping, and for piping carrying gas at</u> <u>pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be</u> <u>held for a length of time satisfactory to the Code Official, but in no case for less than thirty (30) minutes.</u> (Delete remainder of section.)

(Reason: To comply with accepted regional practices.)

**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 614.6; add a sentence to read as follows:

The size of duct shall not be reduced along its developed length nor at the point of termination.

(Reason: To clarify the size requirement. Consistent with regional amendment to IMC 504.6.)

**Section 614.6.1; change to read as follows:

614.6.1 Maximum length. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm) from the dryer location to the outlet terminal <u>with not more than two bends</u>. <u>When extra bends</u> <u>are installed</u>, the maximum length of the duct shall be reduced 2.5 feet (762 mm) for each 45-degree (0.79 rad) bend and 5 feet (1524 mm) for each 90-degree (1.6 rad) bend <u>that occur after the first two bends</u>, <u>measuring in the direction of airflow</u>.

{Exception is unchanged}

(Reason: To make more consistent with regional practice. Dryer technology has improved to the point where they should be capable of handling this. Consistent with regional amendment to IMC 504.6.1.)

**Section 621.2; change to read 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 code official discretion.)

**Section 624.1.1; change to read as follows:

624.1.1 Installation requirements. The requirements for water heaters relative to <u>access</u>, sizing, relief valves, drain pans and scald protection shall be in accordance with the *International Plumbing Code*.

(Reason: To clarify installation requirements. Also corresponds with amendments regarding water heater access.)

END