Proposed Change as Submitted

Proponent: James Ranfone, representing American Gas Association (jranfone@aga.org)

THIS CODE CHANGE PROPOSAL HAS BEEN PLACED ON THE IMC COMMITTEE AGENDA. PLEASE SEE THE IMC HEARING ORDER.

2018 International Fuel Gas Code
Revise as follows

[M] PIPING. Where used in this code, "piping" refers to either pipe or tubing, or both.

Reason: Definitions should not contain technical requirements. The code in other sections provide the list of acceptable materials. The deletion would coordinate with the definition as revised in the 2018 National Fuel Gas Code.

Cost Impact: The code change proposal will not increase or decrease the cost of construction
The definition changes do not impact the code’s installation requirements.
Public Hearing Results

Committee Action: As Submitted
Committee Reason: Approval was based on the proponent’s published reason statement. (Vote 11-0)

Assembly Action: None

Individual Consideration Agenda

Public Comment 1:

Proponent: Marcelo Hirschler, GBH International, representing GBH International (mmh@gbhint.com) requests As Modified by This Public Comment.

Modify as follows:

2018 International Fuel Gas Code

[M] PIPING. Where used in this code, “piping” refers to either pipe or tubing, or both.

A rigid conduit of iron, steel, copper, copper-alloy, or plastic, used to convey fuel gas or other a fluid.
Semirigid conduit of copper, copper-alloy, aluminum, plastic or steel, used to convey fuel gas or other a fluid.

Commenter’s Reason: The proposal needs to be revised because these are the definitions of pipe and of tubing contained in the IMC (note that the definitions are preceded by [M], in the IFGC indicating that they are the responsibility of the IMC and are copied into the IFGC also).
I assume the change is intended to apply to the IFGC and not to the IMC. That goes against the approach of getting uniformity of definitions in ICC codes.

The IFGC is used to address conveying of fuel gas but the IMC deals to a large extent with other fluids, namely water and other aqueous fluids. Therefore the definition proposed for the IFGC would not be appropriate for the IMC.

The proposed changes, which could apply to both codes, reinstate the original wording and add the words “used to convey a fluid”, from the proposal,

If it is ruled that this code proposal, with this public comment, cannot apply to the IMC, the code proposal should be disapproved.

The statements in the reason for the original proposal are not correct.

“Definitions should not contain technical requirements.” ICC definitions are enforceable and often contain requirements, as opposed to ASTM or NFPA definitions.

“The deletion would coordinate with the definition as revised in the 2018 National Fuel Gas Code.” That is only true for pipe and not for tubing.

The National Fuel Gas Code (NFPA 54), in its 2018 edition has the following definitions:

Pipe: Rigid conduit used to convey fuel gas or other fluids.

Tubing. Semirigid conduit of copper, steel, aluminum, corrugated stainless steel tubing (CSST), or plastic.

Furthermore, these definitions do not apply to a mechanical code from the NFPA, but strictly to the fuel gas code.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction
This is a definition and does not impose any requirements: it states facts.
Proposed Change as Submitted

**Proponent:** Kelly Cobeen, Wiss Janney Elstner Associates, Inc., representing Federal Emergency Management Agency/Applied Technology Council Seismic Code Support Committee (KCobeen@wje.com); Michael Mahoney, Federal Emergency Management Agency, representing Federal Emergency Management Agency (mike.mahoney@fema.dhs.gov)

**2018 International Fuel Gas Code**

Revise as follows

**301.12 Seismic resistance.** Where earthquake loads are applicable in accordance with the International Building Code, the supports fuel gas appliance and system supports, anchorage, and bracing shall be designed and installed for the seismic forces in accordance with Chapter 16 of that code.

**Reason:** The added text clarifies the IBC location where specific seismic requirements are defined. This is simply intended to make the seismic design provisions more easily used, consistent with the intent as stated in 2015 NEHRP Recommended Provisions Section 1.1.2, to preserve life safety by maintaining the position of components through anchorage, bracing and strength.


**Cost Impact:** The code change proposal will not increase or decrease the cost of construction. The proposed wording clarifies the intent of the code and does not impose any new requirements that were not already in effect.
Public Hearing Results

Committee Action: Disapproved

Committee Reason: Adding a Chapter 16 reference will cause confusion. This will not allow the IRC earthquake provisions and instead will require one and two family dwellings to comply with the IRC. The IBC allows the IRC as an optional code and this proposal negates that. (Vote 11-0)

Assembly Action: None

Individual Consideration Agenda

Public Comment 1:

Proponent: Michael Mahoney, representing Federal Emergency Management Agency (mike.mahoney@fema.dhs.gov) requests As Submitted.

Commenter's Reason:
The Federal Emergency Management Agency (FEMA), under its Seismic Code Support Committee (SCSC), submitted FG9-18 to clarify seismic support anchorage requirements for the components relevant to that code (by adding anchorage and bracing) and to provide a more specific reference to the earthquake loads of Chapter 16 of the IBC.

This code change proposal was opposed due to confusion on whether the reference to Chapter 16 of the IBC would adversely impact use of the International Residential Code. While we attempted to explain that the seismic loads in Chapter 16 also serve as the basis for the IRC, we were not successful and the proposed code changes was recommended for disapproval.

For a nearly identical proposed code change to the International Plumbing Code, P5-18, we were able to explain that the reference to the IBC did not impact residential construction, and this change was recommended for approval unanimously.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. This code change proposal simply attempts to better explain existing code language, so there is no cost impact.
Proposed Change as Submitted

Proponent: James Ranfone, representing American Gas Association (jranfone@aga.org)

2018 International Fuel Gas Code

Add new text as follows

304.13(IFGS) Existing Appliances. Existing appliance installations shall be inspected to verify compliance with the provisions of Section 304 and Chapter 5 where a component of the building envelope is modified as described by one or more of 304.13 (1) through (6). Where the appliance installation does not comply with Section 304 and Chapter 5, the installation shall be altered as necessary to be in compliance with Section 304 and Chapter 5.

1. The building is modified under a weatherization program.
2. A building permit is issued for a building addition or exterior building modification.
3. Three or more window assemblies are replaced.
4. Three or more storm windows are installed over existing windows.
5. One or more exterior door and frame assemblies are replaced.
6. A building air barrier is installed or replaced.

Reason: AGA is proposing an extract of section 9.1.24 from ANSI Z223.1, National Fuel Gas Code. The code requirement would address renovations to existing buildings that could impact the supply of combustion air and the performance of venting systems. AGA is aware of weatherization programs that fail to consider the importance of ensuring that existing gas appliance installations continue to meet the IFGC combustion air and venting requirements when efforts to reduce air infiltration are undertaken. This proposal is offered solely for coordinating the IFGC with ANSI Z223.1 (NFGC). This text is offered "as is" for the IFGC and it is not intended that such text be modified from a technical standpoint. The subject text was revised in the 2018 NFGC (ANSI Z223.1) and this proposal will cause the IFGC text to be consistent with such revised text in ANSI Z223.1 (NFGC).

Bibliography: ANSI Z223.1 National Fuel Gas Code, American Gas Association, 2018

Cost Impact: The code change proposal will increase the cost of construction. The new section will require inspections and possible modifications.
Public Hearing Results

Committee Action:  As Submitted
Committee Reason: There is a safety issue that all agree needs to be addressed. This proposal should move forward and receive feedback from the public comment phase of the process. (Vote 6-5)

Assembly Action:  Disapproved

Individual Consideration Agenda

Public Comment 1:
Proponent:  Ted Williams, representing American Gas Association (twilliams@aga.org) requests As Submitted.
Commenter’s Reason: The proposal is needed for building occupant safety where weatherization and other activities to tighten the building envelope to air infiltration for the purposes of energy efficiency may reduce the availability of gas-fired appliance combustion and ventilation air. This tightening of building envelopes without review of combustion air requirements may place occupants at risk from incomplete combustion and improper venting, both of which would be addressed by review of the combustion air requirements associate with IFGC Section 305 and Chapter 5. As a member of the standards development committees of Building Performance Institute (BPI) and Air Conditioning Contractors of America (ACCA) and commenter of record on standards actions related to building energy efficiency, I know that these organizations do not take direct responsibility for energy efficiency measures that may affect occupant safety and instead defer to the IFGC and National Fuel Gas Code to address changing needs that may be caused by energy efficiency measures. Without the change proposed in FG10-18, which was approved by the IFGC Committee, the energy efficiency measures implemented in these other documents and in energy efficiency programs and practices may be out of step with safety requirements presumed for the building prior to envelope modifications.
Cost Impact: The net effect of the public comment and code change proposal will increase the cost of construction. The change would increase the cost of construction for weatherization and rehabs where building envelopes where tightened to infiltration of outdoor air and where alternative means of providing combustion and ventilation air for safe operation of combustion appliances. This increased cost would be more than offset by alleviating risks to building occupants from insufficient air for combustion.

Public Comment 2:
Proponent:  DONALD SURRENA, NATIONAL ASSOCIATION OF HOME BUILDERS, representing National Association of Home Builders (dsurrena@nahb.org) requests Disapprove.
Commenter’s Reason: The proposal will add significant cost to confirm compliance with section 3 and chapter 5 of the IFGC for all existing appliances to be inspected in a single family home and verify compliance when work is done as listed in items 1 through 6. Existing appliances that have no bearing on the work being done or the contractor doing the work. As an example having three windows replaced in an existing home or replacing one door will have no effect on an existing gas appliance. These requirements are excessive and will become a disincentive for home owners to get a permit or to contact the building department. This proposal should be disapproved.
Cost Impact: The net effect of the public comment and code change proposal will increase the cost of construction. This proposal will require the use of a third party inspection of all gas appliances, new or existing, in an existing home.

Public Comment 3:
Proponent:  Assembly Action requests Disapprove.
Commenter’s Reason: This code change proposal is on the agenda for individual consideration because the proposal received a successful assembly action. The assembly action for Approve as Submitted was successful by a vote of 82.8% (111) to 17.2% (23) by eligible members online during the period of May 9 - May 23, 2018.
Proposed Change as Submitted

Proponent: Guy McMann, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO) (gmcmann@jeffco.us)

2018 International Fuel Gas Code

Revise as follows

404.5 Fittings in concealed locations. Fittings installed in concealed locations shall be limited to the following types:

1. Threaded-right-hand threaded elbows, tees, couplings, plugs and couplings caps.
2. Brazed fittings.
3. Welded fittings.
4. Fittings listed to ANSI LC-1/CSA 6.26 or ANSI LC-4A.

Reason: Not all fittings are in the list. Unions are not permitted to be concealed and left-right couplings are still being used. These couplings are a form of union.

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This proposal is editorial in nature.
Public Hearing Results

Committee Action: As Modified

Committee Modification: 404.5 Fittings in concealed locations.
Fittings installed in concealed locations shall be limited to the following types:

1. Threaded Right-hand-threaded elbows, tees, couplings, plugs and caps.
2. Brazed fittings.
3. Welded fittings.
4. Fittings listed to ANSI LC-1/CSA 6.26 or ANSI LC-4.

Committee Reason: Couplings and plugs needed to be added. Right/left couplings are still being used and should be allowed. (Vote 10-1)

Assembly Action: As Submitted

Individual Consideration Agenda

Public Comment 1:

Proponent: Assembly Action requests As Submitted.

Commenter’s Reason: This code change proposal is on the agenda for individual consideration because the proposal received a successful assembly action. The assembly action for Disapprove was successful by a vote of 57.8% (63) to 42.2% (46) by eligible members online during the period of May 9 - May 23, 2018.

Public Comment 2:

Proponent: Ted Williams, representing American Gas Association (twilliams@aga.org) requests As Modified by Committee.

Commenter’s Reason: As the original proposal advocated, couplings and plugs in concealed locations need to be included in list of limitations. The modification to include all threaded fittings is needed for general coverage of elbows, tees, couplings, plugs, and caps in concealed locations. During discussion of this modification, floor commentary was confused over this issue and potential applicability of the modification language over the proposal as submitted. No compelling need for disapproving of the modification was offered.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction
Changes to the list of fittings installed in concealed locations will not affect construction cost.
Proposed Change as Submitted

Proponent: James Ranfone, representing American Gas Association (jranfone@aga.org)

2018 International Fuel Gas Code
Delete and substitute as follows

404.6 Underground penetrations prohibited. Gas piping shall not penetrate building foundation walls at any point below grade. Gas piping shall enter and exit a building at a point above grade and the annular space between the pipe and the wall shall be sealed.

404.6 Piping through foundation wall. Underground piping where installed below grade through the foundation or basement wall of a building shall be encased in a protective pipe sleeve. The annular space between the gas piping and the sleeve shall be sealed.

Reason: A change adopted into the 2015 edition prohibits gas piping from penetrating a foundation or basement wall below grade. This change was adopted without evidence that such penetrations have resulted in a safety concern. Below grade penetrations have a long been permitted and have proven to be a safe installation method. The revised language would reinstate this allowance. At least one State, Georgia, has amended the IFGC to delete the prohibition and allow below grade penetration like the proposed text. GA text is as follows: “404.6 Piping through foundation wall. Underground piping where installed below grade through the foundation or basement wall of a building, shall be encased in a protective pipe sleeve. The annular space between the gas piping and the sleeve shall be sealed.”

Cost Impact: The code change proposal will decrease the cost of construction
The change will reduce the need to bring piping above ground in some installations. That will reduce the length of piping required as well as reduce the number of fittings used.
Public Hearing Results

Committee Action: As Submitted
Committee Reason: Approval was based on proponent's published reason statement. Gas can enter building through other pipe penetrations. Above ground pipe is subject to damage. (Vote 7-4)

Assembly Action: Disapproved

Individual Consideration Agenda

Public Comment 1:

Proponent: Ted Williams, representing American Gas Association (twilliams@aga.org) requests As Submitted.

Commenter's Reason: Opponents to the Committee action for Approve as Submitted once again provided no data or direct evidence to support the prohibition of below-grade through-foundation wall penetrations of gas piping, which Section 404.6 prohibits, even though millions of current gas piping installations use below-grade through-foundation wall penetrations. Opponents had no answers to Committee questions about whether or not other foundation penetrations can convey leaking gas from outside of the building and for which no protection from leaking gas might affect accumulation of gas within the structure. Opponents cited site-specific conditions that might compromise efforts at sealing below-grade through-foundation wall penetrations (such as in seismically active areas or areas with expansive soils) but offered no modifications to Section 404.6 to address these site-specific conditions and avoid the continued conflict with current installations of gas piping and installation practices that allow below-grade through-foundation wall penetrations. When asked by Committee members to assess the increased risk of exposing additional piping by requiring above-grade building entry of gas piping, no response was offered, even though such practices add risks to integrity of the piping system.

Cost Impact: The net effect of the public comment and code change proposal will decrease the cost of construction. By allowing the conventional practice of gas piping entering buildings through foundation walls below grade, the additional cost of added piping to enter the building above grade (and protecting that piping from impact, which is not required but would prudently be considered) can be avoided.

Public Comment 2:

Proponent: Assembly Action requests Disapprove.

Commenter's Reason: This code change proposal is on the agenda for individual consideration because the proposal received a successful assembly action. The assembly action for Disapprove was successful by a vote of 58.8% (67) to 41.2% (47) by eligible members online during the period of May 9 - May 23, 2018.