

IFGC



cdpACCESS

2018 GROUP A PROPOSED CHANGES TO THE I-CODES COLUMBUS COMMITTEE ACTION HEARINGS

April 15–23, 2018
Columbus Convention Center
Columbus, Ohio

First Printing

Publication Date: February 2018

Copyright © 2018

By

International Code Council, Inc.

ALL RIGHTS RESERVED. This 2018-2019 Code Development Cycle, Group A (2018) Proposed Changes to the 2018 *International Codes* is a copyrighted work owned by the International Code Council, Inc. Without advanced written permission from the copyright owner, no part of this book may be reproduced, distributed, or transmitted in any form or by any means, including, without limitations, electronic, optical or mechanical means (by way of example and not limitation, photocopying, or recording by or in an information storage retrieval system). For information on permission to copy material exceeding fair use, please contact: Publications, 4051 West Flossmoor Road, Country Club Hills, IL 60478 (Phone 1-888-422-7233).

Trademarks: "International Code Council," the "International Code Council" logo are trademarks of the International Code Council, Inc.

PRINTED IN THE U.S.A.

2018 GROUP A – PROPOSED CHANGES TO THE INTERNATIONAL FUEL GAS CODE

FUEL GAS CODE COMMITTEE

Michael D. Redifer, MCP, Chair
Building Official
City of Newport News
Newport News, VA

Paul W. Cabot, CGE, Vice Chair
Administrator National Fuel Gas Code
American Gas Association
Washington, DC

Mike Deegan
Rep: American Gas Association
Safety & Regulatory Compliance
Clearwater Gas System
Clearwater, FL

Ralph E. Euchner
Rep: American Gas Association
Operations Manager
PSNC Energy/AGA
Gastonia, NC

William T. Hamilton, CGI
Rep: American Gas Association
Manager, Technical Training
UGI Utilities, Inc.
Reading, PA

Randy Lee
Code Inspector
City of Decatur
Tuscumbia, AL

Andrea Lanier Papageorge, JD, MBA
Rep: American Gas Association
Manager, Building and Gas Codes and
Standards
Southern Company Gas
Atlanta, GA

New York Department of Buildings
New York, NY

Mark Riley
Mechanical Inspector
City of Royal Oak Building Department
Royal Oak, MI

Jason Stanek, PE
Rep: American Gas Association
Manager, Commercial & Contractor Services
Metropolitan Utilities District
Omaha, NE

Timothy H. Swanson, CBCO, CFCO
Chief Building Official
City of Greeley
Greeley, CO

Staff Secretariat:

Gregg Gress
Senior Technical Staff
International Code Council
Central Regional Office
Country Club Hills, IL

AGA Liaison

Jim Ranfone, Managing Director
American Gas Association
Washington, DC

Kathleen Patterson, RA
Codes Development Architect

TENTATIVE ORDER OF DISCUSSION 2018 PROPOSED CHANGES TO THE INTERNATIONAL FUEL GAS CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does not necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some FG code change proposals may not be included on this list, as they are being heard by another committee.

FG1-18
FG2-18
FG3-18
FG4-18
FG5-18
FG6-18
FG7-18
FG8-18
 P1-18 Part IV
FG9-18
 F122-18 Part II
FG10-18
FG11-18
FG12-18
FG13-18
FG14-18
FG15-18
FG16-18
FG17-18
FG18-18
FG19-18
FG20-18
FG21-18
FG22-18
FG23-18
FG24-18
FG25-18
FG26-18
FG27-18
FG28-18
FG29-18

FG1-18

IFGC: 202

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.

Pipe. A rigid conduit ~~of iron, steel, copper, copper alloy or plastic~~ used to convey fuel gas or other fluid.

Tubing. Semirigid conduit ~~of copper, copper alloy aluminum, plastic or steel~~ used to convey fuel gas or other fluid.

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.

Internal ID: 1370

FG2-18

IFGC: 202 (New)

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

2018 International Fuel Gas Code

Add new definition as follows:

SERVICE METER ASSEMBLY. The meter, valve, regulator, piping, fittings and equipment installed by the service gas supplier before the point of delivery.

Reason:

The “Point of Delivery” definition uses the term “service meter assembly” but that term is not defined. The proposed would help clarify the code. AGA will also be proposing the same definition for the 2021 National Fuel Gas Code.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The definition does not add code installation requirements.

Internal ID: 1668

FG3-18

IFGC: 202 (New)

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

2018 International Fuel Gas Code

Add new definition as follows:

SYSTEM SHUTOFF. A valve installed after the point of delivery to shut off the entire piping system.

Reason:

AGA is proposing a definition to cover a valve that may be installed for customer use to shut off the entire customer piping system. That valve would be installed downstream of the point of delivery (see proposed revision to POD definition) and would be owned by the customer. A similar definition and coverage for system shutoff valve is being proposed for the 2021 National Fuel Gas Code. Under current federal law, only qualified personnel are permitted to operate a gas utility's system components covered under the law. The gas service shutoff valve is one such covered component. Some gas utilities have chosen to provide a shutoff valve after the point of delivery as part of the service meter assembly for customer use to shut down their gas piping without the need to operate the gas utility's covered service shutoff valve.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The new definition does not change the code's installation requirements.

Internal ID: 1382

FG4-18

IFGC: 202

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

2018 International Fuel Gas Code

Revise as follows:

VALVE. A device used in piping to control the gas supply to any section of a system of piping or to an appliance.

Service Shutoff. A valve, installed by the serving gas supplier between the source of supply and the point of delivery, to shut off the entire piping system.

Reason:

The revision clarify that the service shutoff valve is always installed between the gas supply and point of delivery. The point of delivery is a defined term.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The definition change does not change the code's installation requirements.

Internal ID: 1379

FG5-18

IFGC: 202 (New)

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

2018 International Fuel Gas Code

Add new definition as follows:

SERVICE METER ASSEMBLY. The meter(s), valve(s), piping, fittings, and equipment installed by the serving gas supplier to connect the gas supply to the customer piping system.

Reason:

The “Point of Delivery” definition uses the term “service meter assembly” but that term is not defined. The proposed would help clarify the code. AGA will also be proposing the same definition for the 2021 National Fuel Gas Code.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The new definition does not changed the code's installation requirements.

Internal ID: 1377

FG6-18

IFGC: 202

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

2018 International Fuel Gas Code

Revise as follows:

REGULATOR, MONITORING. A pressure regulator set in series with another pressure regulator for the purpose of automatically taking control of the pressure downstream of the monitored regulator when that pressure exceeds a set minimum, preventing an overpressure in the downstream piping system.

Reason:

Definitions should not contain technical requirements. Section 416 provide the pressure limits. The deletion would coordinate with the definition as revised the 2018 National Fuel Gas Code.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The definition change does not impact the code's installation requirements.

Internal ID: 1375

FG7-18

IFGC: 202

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

2018 International Fuel Gas Code

Revise as follows:

POINT OF DELIVERY. For natural gas systems, the point of delivery is the outlet of the service meter assembly or the outlet of the service regulator or service shutoff valve where a meter is not provided. Where a system shutoff valve is provided ~~at~~after the outlet of the service meter assembly, such valve shall be considered to be downstream of the point of delivery. For undiluted liquefied petroleum gas systems, the point of delivery shall be considered to be the outlet of the service pressure regulator, exclusive of line gas regulators, in the system.

Reason:

AGA is also proposing coverage for a “system shutoff” valve and its inclusion in the POD definition clarifies that definition’s intent. The word “at” indicates that the valve will be very close to the POD. That may not be the case where a length of pipe may be installed prior to the installation of the valve. The word “after” would include all locations.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The changes do not revise the code's installation requirements.

Internal ID: 1373

FG8-18

IFGC: 202 (New)

Proponent: Mark Fasel, representing Viega LLC (mark.fasel@viega.us)

2018 International Fuel Gas Code

Add new definition as follows:

PRESS-CONNECT JOINT A permanent mechanical joint incorporating an elastomeric seal or an elastomeric seal and corrosion-resistant grip or bite ring. The joint is made with a pressing tool and jaw or ring approved by the fitting manufacturer.

Reason:

The definition for Press-Connect Fittings is not included into the IFGC. The term Press-Connect Fittings are used in the International Fuel Gas Code sections 403.10.1 and 403.10.2. Adding the definition of Press-Connect Joint will align the definition already used in the IMC and IPC.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

This definition currently exists in other ICC model codes and is simply added for reference. This proposal is an additional option for a pipe joint method and will not require an added cost to construction.

Internal ID: 792

FG9-18

IFGC: 301.12

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.

Bibliography:

NEHRP Recommended Seismic Provisions for New Buildings and Other Structures, 2015 Edition (FEMA P-1050-1).

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.

Internal ID: 1034

FG10-18

IFGC: 304.13(IFGS) (New)

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.

Internal ID: 1384

FG11-18

IFGC: 307.2

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

2018 International Fuel Gas Code

Revise as follows:

307.2 Fuel-burning appliances. Liquid combustion byproducts of condensing appliances shall be collected and discharged to an approved plumbing fixture or disposal area in accordance with the manufacturer's instructions. Condensate piping shall be of approved corrosion-resistant material and shall be not smaller than the drain connection on the appliance. Such piping shall maintain a minimum slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1-percent slope).

Where condensate piping is concealed, and the primary and secondary drain system pipes serving the same appliance terminate together at a remote location, the terminations shall be identified as to which is the primary or secondary drain.

Reason:

Reason: Condensate drain systems from the same appliance need to be identified when terminating together at a remote location when the piping is concealed or partially concealed and could have possibly changed orientation. Occupants and service personnel won't be able to tell by looking at the piping which system is discharging and can't identify if they have a problem.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

Simple identification should not increase cost.

Internal ID: 122

FG12-18

IFGC: 401.5

Proponent: Bob Torbin, OmegaFlex, representing OmegaFlex (bob.torbin@omegaflex.net)

2018 International Fuel Gas Code

Revise as follows:

401.5 Identification. For other than steel pipe and CSST, exposed *pipng* shall be identified by a yellow label marked "Gas" in black letters. The marking shall be spaced at intervals not exceeding 5 feet (1524 mm). The marking shall not be required on ~~pipe~~ pipng located in the same room as the *appliance* served. CSST shall be identified as required by ANSI LC 1/CSA 6.26.

Reason:

Recent changes in the ANSI LC-1 Standard for CSST now permits the CSST jacket to be either yellow or black. The marking requirements of LC-1 permit the marking color to be selected by the manufacturer provided it is a high contrasting color compared to the jacket color (such as white on black). The marking requirement also requires the word "Fuel Gas" be printed every two feet along the tubing. The proposed modification recognizes that the marking requirements of ANSI LC-1 can meet the intent of the marking requirements of the Identification Section as an equivalent marking.

The replacement of the word "pipe" in the third sentence with the word "pipng" reflects the marking application is intended only for copper pipe/tubing and CSST, and thus reflects the proper use of the term as defined in Chapter 2.

Cost Impact

The code change proposal will decrease the cost of construction .

The use of factory-marked tubing results in cost savings because this avoids the labor and material costs of separately installing stick-on labels to field-installed piping.

Internal ID: 1092

FG13-18

IFGC: 404.2

Proponent: Shannon Corcoran, CSA Group, representing CSA Group (shannon.corcoran@csagroup.org)

2018 International Fuel Gas Code

Revise as follows:

404.2 CSST. CSST piping systems shall be installed in accordance with the terms of their approval, the conditions of listing in accordance with ANSI LC 1/CSA 6.26, the manufacturer's instructions and this code.

Reason:

The purpose of this proposal is to clarify the intent that CSST is installed in accordance with the manufacturer's listing to the applicable ANSI standard, ANSI LC 1 / CSA 6.26.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The references will increase the need for products to comply, however compliance to the referenced standards is not expected to impact the cost of construction.

Internal ID: 1114

FG14-18

IFGC: 404.5

Proponent: Guy McMann, representing Colorado Association of Plumbing and Mechanical Officials (CAPMO)
(gcmcmann@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-~~4-4~~.

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.

Internal ID: 186

FG15-18

IFGC: 404.6

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 Underground penetrations prohibited.Piping through foundation wall. ~~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~~ 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 pipe-gas piping and the wall 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.

Internal ID: 1385

FG16-18

IFGC: 404.11.2

Proponent: Bob Torbin, OmegaFlex, representing OmegaFlex (bob.torbin@omegaflex.net)

2018 International Fuel Gas Code

Revise as follows:

404.11.2 Protection methods. Underground piping shall comply with one or more of the following:

1. The piping shall be made of corrosion-resistant material that is suitable for the environment in which it will be installed.
2. Pipe shall have a factory-applied, electrically-insulating coating. Fittings and joints between sections of coated pipe shall be coated in accordance with the coating manufacturer's instructions.
3. The piping shall have a cathodic protection system installed and the system shall be monitored and maintained in accordance with an *approved* program.
4. The piping shall be installed within an encasement system listed for underground use or within a non-metallic, watertight conduit.

Reason:

The ICC Evaluation Service issued a listing criteria for polyethylene sleeved CSST (LC 1023) dated May 2009. The use of listed encasement systems (such as polyethylene sleeved CSST) has been included in the National Fuel Gas Code (NFPA 54) Section 7.1.6 since the 2012 edition, and was included in the 2018 edition of the International Fuel Gas Code. This type of product has been used underground without failure or damage for approximately 15 years. Use of pre-assembled encasement systems streamlines the installation of gas piping underground or beneath buildings and concrete slabs, and can be installed underground without joints where required. This will improve safety (no potential leakage sites) when installing such systems. The use of buried conduit is already permitted by Section 404.14 piping underground beneath buildings, but needs to be added here for consistency.

Cost Impact

The code change proposal will decrease the cost of construction .

The use of buried conduit is already permitted by Section 404.14 piping underground beneath buildings. The use of a listed encasement system results in cost savings because the piping and encasement are installed simultaneously.

This avoids the labor cost of separately installing the conduit and piping. In addition, the sealing and venting methods (when required) are also integrated within the encasement system, thus eliminating the need to separately assemble and/or install sealing and venting components within standard conduit.

Internal ID: 1097

FG17-18

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

2018 International Fuel Gas Code

Delete without substitution:

~~**404.11.5 Prohibited use.** Uncoated threaded or socketwelded joints shall not be used in piping in contact with soil or where internal or external crevice corrosion is known to occur.~~

Reason:

Section 404.11.2 #2 requires that all piping have a factory-applied protective coating and that fittings and joints between sections of coated pipe shall be coated in accordance with the coating manufacturer's instructions. Therefore section 404.11.5 is not needed. We note that most of 404.11 is new for the 2018 edition and section 404.11.5 which was in previous editions should have been deleted when this new material was added.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

Section 404.11.2 #2 requires coated piping.

Internal ID: 855

FG18-18

IFGC: 404.18

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

2018 International Fuel Gas Code

Revise as follows:

404.18 Pipe ~~cleaning~~ debris removal. The interior of piping shall be clear of debris. The use of a flammable or combustible gas to clean or remove debris from a *piping* system shall be prohibited.

Reason:

The code prohibits the use of flammable or combustible gas to clean piping but does not require piping to be clear of debris. The proposed text would add in the requirement which would also harmonize it with the National Fuel Gas Code.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

Pipe is usually cleared of debris as it is being assembled . No change in the code's installation requirements.

Internal ID: 1663

FG19-18

IFGC: 404.18

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

2018 International Fuel Gas Code

Revise as follows:

404.18 Pipe cleaning. Prior to testing, the interior of the piping system shall be cleared of all debris. The use of a flammable or combustible gas to clean or remove debris from a piping system shall be prohibited.

Reason:

The code prohibits the use of flammable or combustible gas to clean piping but does not require piping to be cleaned. The proposed text would add in the requirement which would also harmonize it with the National Fuel Gas Code.

Cost Impact

The code change proposal will increase the cost of construction .

The revision clarifies that all piping is to be cleaned and therefore may increase the cost of construction.

Internal ID: 1356

FG20-18

IFGC: 409.8 (New)

Proponent: John Cecil II, representing self (jcecil@msn.com)

2018 International Fuel Gas Code

Add new text as follows:

409.8 Building shutoff. A shutoff valve that will shutoff the gas supply to the entire building shall be installed, indoors or outdoors, within 6 feet of the entrance of the gas supply piping into the building. The shutoff valve shall not require the use of a tool to operate it.

Reason:

Reason: The shutoff valve will allow the gas supply to the building to be shutoff in an emergency without having to utilize the utility owned shutoff valve located upstream of the meter and service regulator equipment..

Bibliography:

Submitted by John Allan Cecil, presently a combination inspector for Garrett County, MD. jcecil@msn.com 240-381-6231

Cost Impact

The code change proposal will increase the cost of construction .

The cost of this Code change would be minimum, basically the cost of a gas valve. The value would be, is that there would be one location, one valve, to turn off the whole house gas supply if there is an emergency.

Internal ID: 494

FG21-18

IFGC: 411.1, Chapter 8, 08

Proponent: Shannon Corcoran, representing CSA Group (shannon.corcoran@csagroup.org)

2018 International Fuel Gas Code

Revise as follows:

411.1 Connecting appliances. Except as required by Section 411.1.1, *appliances* shall be connected to the *pipng* system by one of the following:

1. Rigid metallic pipe and fittings.
2. Corrugated stainless steel tubing (CSST) where installed in accordance with the manufacturer's instructions.
3. Semirigid metallic tubing and metallic fittings. Lengths shall not exceed 6 feet (1829 mm) and shall be located entirely in the same room as the *appliance*. Semirigid metallic tubing shall not enter a motor-operated *appliance* through an unprotected knockout opening.
4. *Listed and labeled appliance* connectors in compliance with ANSI Z21.24/CGA 6.10 and installed in accordance with the manufacturer's instructions and located entirely in the same room as the appliance.
5. *Listed and labeled quick-disconnect devices in compliance with ANSI Z21.41/CGA 6.9* used in conjunction with *listed and labeled appliance* connectors.
6. *Listed and labeled convenience outlets in compliance with ANSI Z21.90/CGA 6.24* used in conjunction with *listed and labeled appliance* connectors.
7. *Listed and labeled outdoor appliance* connectors in compliance with ANSI Z21.75/CSA 6.27 and installed in accordance with the manufacturer's instructions.
8. *Listed outdoor gas hose connectors* in compliance with ANSI Z21.54 used to connect portable outdoor appliances. The gas hose connection shall be made only in the outdoor area where the appliance is used, and shall be to the *gas pipng* supply at an appliance shutoff valve, a listed quick-disconnect device or listed gas convenience outlet.
9. Gas hose connectors for use in laboratories and educational facilities in accordance with Section 411.4.

CHAPTER 8 REFERENCED STANDARDS

Add new standard(s) follows:

ANSI

American National Standards
Institute
25 West 43rd Street 4th Floor
New York NY 10036

ANSI Z21.41/CSA 6.9-2014:

Quick disconnect devices for use with gas fuel appliances

ANSI Z21.90/CSA 6.24-2015:

Gas convenience outlets and optional enclosures

Reason:

This proposal is intended to provide clarity in the Code by including reference to the applicable ANSI standard for quick-disconnect devices (ANSI Z21.41/CSA 6.9) and convenience outlets (ANSI Z21.90/CSA 6.24).

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The references will increase the need for products to comply, however compliance to the referenced standards is not expected to impact the cost of construction.

Analysis: A review of the standard proposed for inclusion in the code, with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2018.

Internal ID: 1136

FG22-18

IFGC: SECTION 413 (IFGC), [F] 413.1, [F] 413.2, [F] 413.2.1, [F] 413.2.2, 413.2.3, 413.2.4 (New), [F] 413.3, [F] 413.3.1, 413.4, , [F] 413.4.3, 413.5 (New), 413.6, 413.7, 413.8, 413.10, 413.9, 413.10.1, 413.10.2, 413.10.2.1, 413.10.2.2, 413.10.2.3, [F] TABLE 413.10.2.3, 413.10.2.6, 413.10.2.4, 413.10.2.5, ordinal

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

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

2018 International Fuel Gas Code

SECTION 413 (IFGC) COMPRESSED NATURAL GAS MOTOR VEHICLE FUEL-DISPENSING FACILITIES

[F] 413.1 General. Motor fuel-dispensing facilities for CNG fuel shall be in accordance with this section and the International Fire Code. The operation of CNG motor fuel-dispensing facilities shall be regulated by the International Fire Code.

[F] 413.2 General. Storage vessels and *equipment* used for the storage, compression or dispensing of CNG shall be *approved* or *listed* in accordance with Sections 413.2.1 through 413.2.3.

[F] 413.2.1 Approved equipment. Containers; compressors; pressure-relief devices, including pressure-relief valves; and pressure regulators and *pipng* used for CNG shall be *approved*.

[F] 413.2.2 Listed equipment. Hoses, hose connections, dispensers, gas detection systems and electrical *equipment* used for CNG shall be *listed*. Vehicle fueling connections shall be *listed* and *labeled*.

Revise as follows:

[F] 413.2.3 General Residential Fueling Appliances. Residential fueling *appliances* shall be ~~in accordance with Section 413.4~~ listed to CSA/ANSI NGV 5.1. The capacity of a residential fueling appliance (RFA) shall not exceed 5 standard cubic feet per minute (0.14 standard cubic meter/min) of natural gas.

Add new text as follows:

413.2.4 Non-residential fueling appliances. Non-residential fueling appliances shall be listed to CSA/ANSI NGV 5.2. The capacity of a non-residential fueling appliance, listed to that standard as a vehicle fueling appliance (VFA), shall not exceed 10 standard cubic feet per minute (0.28 standard cubic meter/min) of natural gas.

[F] 413.3 Location of dispensing operations and equipment. Compression, storage and dispensing *equipment* shall be located outdoors, above ground.

Exceptions:

1. Compression, storage or dispensing *equipment* is not prohibited in buildings where such buildings are of noncombustible construction as set forth in the International Building Code and are unenclosed for not less than three-quarters of their perimeter.
2. Compression, storage and dispensing *equipment* is allowed to be located indoors or in vaults in accordance with the International Fire Code.

[F] 413.3.1 Location on property. In addition to the fuel-dispensing requirements of the International Fire Code, compression, storage and dispensing *equipment* not located in vaults complying with the International Fire Code and other than residential fueling appliances shall not be installed:

1. Beneath power lines.
2. Less than 10 feet (3048 mm) from the nearest building or property that could be built on, public street, sidewalk or source of ignition.
Exception: Dispensing *equipment* need not be separated from canopies that provide weather protection for the dispensing *equipment* and are constructed in accordance with the International Building Code.
3. Less than 25 feet (7620 mm) from the nearest rail of any railroad track.

4. Less than 50 feet (15 240 mm) from the nearest rail of any railroad main track or any railroad or transit line where power for train propulsion is provided by an outside electrical source, such as third rail or overhead catenary.
5. Less than 50 feet (15 240 mm) from the vertical plane below the nearest overhead wire of a trolley bus line.

Revise as follows:

[F] 413.4 Residential fueling appliance installation. Residential fueling *appliances* shall be installed in accordance with Sections 413.4.1 through 413.4.3, requirements of CSA/ANSI NGV 5.1, manufacturer installation instructions, and Section 2308 of the International Fire Code for RFAs.

Delete without substitution:

~~**[F] 413.4.1 Listing and installation.** Residential fueling appliances shall be listed in accordance with ANSI NGV 5.1. Residential fueling appliances shall be installed in accordance with the appliance manufacturer's installation instructions.~~

~~**[F] 413.4.2 Gas connection.** Residential fueling appliances shall not be rigidly connected to the gas supply piping.~~

~~**[F] 413.4.3 Indoor installation.** A residential fueling appliance installed indoors or used for indoor fueling shall comply with all of the following:~~

1. ~~The capacity shall not exceed 5 cubic feet per minute (0.14 m³/min) of natural gas.~~
2. ~~Fuel gas from the pressure relief and blowdown systems shall be vented to the outdoors.~~
3. ~~A methane gas detector shall be installed in the room or space containing the appliance or where fueling occurs and shall be located not lower than 6 inches (152 mm) from the highest point in the room or space. The detector shall be set to activate at one-fifth of the lower limit of flammability of natural gas and shall be interlocked with the residential fuel appliance to stop or prevent its operation upon activation. The detector shall have an audible or visible alarm.~~
4. ~~The capacity of a residential fueling appliance installed outdoors for outdoor fueling shall not exceed 10 feet cubic per minute (0.28 m³/min) of natural gas. Residential fueling appliances located outdoors shall be installed on a firm, noncombustible base.~~

Add new text as follows:

413.5 Non-residential fueling appliance installation. Non-residential fueling appliances shall be installed in accordance with requirements for vehicle fueling appliances (VFA) in CSA/ANSI NGV 5.2, manufacturer installation instructions, and Section 2308 of the International Fire Code for VFAs.

Revise as follows:

~~**[F] 413.5-413.6 Private fueling of motor vehicles.** Self-service CNG-dispensing systems, including key, code and card lock dispensing systems, shall be limited to the filling of permanently mounted fuel containers on CNG-powered vehicles.~~

In addition to the requirements in the International Fire Code, the owner of a self-service CNG-dispensing facility shall ensure the safe operation of the system and the training of users.

~~**[F] 413.6-413.7 Pressure regulators.** Pressure regulators shall be designed, installed or protected so their operation will not be affected by the elements (freezing rain, sleet, snow, ice, mud or debris). This protection is allowed to be integral with the regulator.~~

~~**[F] 413.7-413.8 Valves.** *Piping to equipment* shall be provided with a remote manual shutoff valve. Such valve shall be provided with ready access.~~

~~**[F] 413.9-413.10 Discharge of CNG from motor vehicle fuel storage containers.** The discharge of CNG from motor vehicle fuel cylinders for the purposes of maintenance, cylinder certification, calibration of dispensers or other activities shall be in accordance with this section. The discharge of CNG from motor vehicle fuel cylinders shall be accomplished through a closed transfer system or an *approved* method of atmospheric venting in accordance with Section 413.9.1 or 413.9.2.~~

[F] ~~413.8-413.9~~ Emergency shutdown control. An emergency shutdown device shall be located within 75 feet (22 860 mm) of, but not less than 25 feet (7620 mm) from, dispensers and shall also be provided in the compressor area. Upon activation, the emergency shutdown system shall automatically shut off the power supply to the compressor and close valves between the main gas supply and the compressor and between the storage containers and dispensers.

[F] ~~413.9.1-413.10.1~~ Closed transfer system. A documented procedure that explains the logical sequence for discharging the cylinder shall be provided to the code official for review and approval. The procedure shall include what actions the operator will take in the event of a low-pressure or high-pressure natural gas release during the discharging activity. A drawing illustrating the arrangement of *pipng*, regulators and *equipment* settings shall be provided to the code official for review and approval. The drawing shall illustrate the *pipng* and regulator arrangement and shall be shown in spatial relation to the location of the compressor, storage vessels and emergency shutdown devices.

[F] ~~413.9.2-413.10.2~~ Atmospheric venting. Atmospheric venting of motor vehicle fuel cylinders shall be in accordance with Sections 413.9.2.1 through 413.9.2.6.

[F] ~~413.9.2.1-413.10.2.1~~ Plans and specifications. A drawing illustrating the location of the vessel support, *pipng*, the method of grounding and bonding, and other requirements specified herein shall be provided to the code official for review and approval.

[F] ~~413.9.2.2-413.10.2.2~~ Cylinder stability. A method of rigidly supporting the vessel during the venting of CNG shall be provided. The selected method shall provide not less than two points of support and shall prevent horizontal and lateral movement of the vessel. The system shall be designed to prevent movement of the vessel based on the highest gas-release velocity through valve orifices at the vessel's rated pressure and volume. The structure or appurtenance shall be constructed of *noncombustible materials*.

[F] ~~413.9.2.3-413.10.2.3~~ Separation. The structure or appurtenance used for stabilizing the cylinder shall be separated from the site *equipment*, features and exposures and shall be located in accordance with Table 413.9.2.3.

**[F] TABLE ~~413.9.2.3-413.10.2.3~~
SEPARATION DISTANCE FOR ATMOSPHERIC VENTING OF CNG**

EQUIPMENT OR FEATURE	MINIMUM SEPARATION (feet)
Buildings	25
Building openings	25
Lot lines	15
Public ways	15
Vehicles	25
CNG compressor and storage vessels	25
CNG dispensers	25

For SI: 1 foot = 304.8 mm.

[F] ~~413.9.2.6-413.10.2.6~~ Signage. Approved NO SMOKING signs shall be posted within 10 feet (3048 mm) of the cylinder support structure or appurtenance. *Approved* CYLINDER SHALL BE BONDED signs shall be posted on the cylinder support structure or appurtenance.

[F] ~~413.9.2.4-413.10.2.4~~ Grounding and bonding. The structure or appurtenance used for supporting the cylinder shall be grounded in accordance with NFPA 70. The cylinder valve shall be bonded prior to the commencement of venting operations.

[F] ~~413.9.2.5-413.10.2.5~~ Vent tube. A vent tube that will divert the gas flow to the atmosphere shall be installed on the cylinder prior to the commencement of the venting and purging operation. The vent tube shall be constructed of pipe or tubing materials *approved* for use with CNG in accordance with the International Fire Code. The vent tube shall be capable of dispersing the gas not less than 10 feet (3048 mm) above grade level. The vent tube shall not be provided with a rain cap or other feature that would limit or obstruct the gas flow.

At the connection fitting of the vent tube and the CNG cylinder, a *listed* bidirectional detonation flame arrester shall be provided.

Update standard(s) as follows:

ANSI

American National Standards
Institute
25 West 43rd Street
New York NY 10036
US

CSA/ANSI NGV 5.1-20152016:

Residential Fueling Appliances

CSA/ANSI NGV 5.2-2017:

Vehicle Fueling Appliances (VFA)

Reason:

This proposal adopts “residential fueling appliance” (RFA) and light-commercial “vehicle fueling appliance” (VFA) coverage for listed appliances from ANSI-recognized standards CSA/ANSI NGV 5.1 and CSA/ANSI NGV 5.2, respectively, and applies installation requirements from those standards, manufacturer installation instructions, and proposed parallel requirements to go into the International Fire Code, Section 2308. Requirements in the two CSA standards cover design, installation, labeling, and other requirements for these two classes of listed appliances and differentiate fueling appliances based on input flow rates and other requirements applicable to residential occupancies in the case of NGV 5.1 and light-commercial occupancies in the case of NGV 5.2. RFA coverage is already found in IFGC Section 413; VFA coverage is proposed as new coverage in the IFGC and IFC.

NFPA 52-2016 already defines and differentiates RFAs and VFAs based on limitations on input flow capacities: 5 SCFM for RFAs and 10 SCFM for VFAs for which coverage is now proposed for both the IFGC and IFC. Parallel coverage RFAs and VFAs is proposed to a new edition of NFPA 52 (2019 edition); however, final action on those proposals has not been taken at the time of the submission of this proposal.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The proposal addresses appliance requirements, including installation requirements, unrelated to facility construction.

Analysis: A review of the standards proposed for inclusion in the code, CSA/ANSI NGV 5.2—2017 and CSA/ANSI NGV 5.1-16, with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2018.

Internal ID: 2009

FG23-18

IFGC: 602.1, 602.2, 603.1, 604.1, 605.1, 608.1, 609.1, 610.1, 613.1, 617.1, 618.1, 620.1, 621.1, 622.1, 623.1, 624.1, 625.1, 626.1, 627.1, 628.1, 630.1, 636.1

Proponent: Shannon Corcoran, representing CSA Group (shannon.corcoran@csagroup.org)

2018 International Fuel Gas Code

Revise as follows:

602.1 General. Decorative appliances for installation in *approved* solid fuel-burning fireplaces shall be ~~tested-listed~~ in accordance with ANSI Z21.60/CSA 6.26 and shall be installed in accordance with the manufacturer's instructions. Manually lighted natural gas decorative appliances shall be ~~tested-listed~~ in accordance with ANSI Z21.84.

602.2 Flame safeguard device. Decorative appliances for installation in approved solid fuel-burning fireplaces, with the exception of those ~~tested-listed~~ in accordance with ANSI Z21.84, shall utilize a direct ignition device, an ignitor or a pilot flame to ignite the fuel at the main burner, and shall be equipped with a flame safeguard device. The flame safeguard device shall automatically shut off the fuel supply to a main burner or group of burners when the means of ignition of such burners becomes inoperative.

603.1 General. Log lighters shall be ~~tested-listed~~ in accordance with CSA 8 and installed in accordance with the manufacturer's instructions.

604.1 General. Vented gas fireplaces shall be ~~tested-listed~~ in accordance with ANSI Z21.50/CSA 2.22, shall be installed in accordance with the manufacturer's instructions and shall be designed and equipped as specified in Section 602.2.

605.1 General. Vented gas fireplace heaters shall be installed in accordance with the manufacturer's instructions, shall be ~~tested-listed~~ in accordance with ANSI Z21.88/CSA 2.33 and shall be designed and equipped as specified in Section 602.2.

608.1 General. Vented wall furnaces shall be ~~tested-listed~~ in accordance with ANSI Z21.86/CSA 2.32 and shall be installed in accordance with the manufacturer's instructions.

609.1 General. Floor furnaces shall be ~~tested-listed~~ in accordance with ANSI Z21.86/CSA 2.32 and shall be installed in accordance with the manufacturer's instructions.

610.1 General. Duct furnaces shall be ~~tested-listed~~ in accordance with ANSI Z83.8/CSA 2.6 or UL 795 and shall be installed in accordance with the manufacturer's instructions.

613.1 General. Clothes dryers shall be ~~tested-listed~~ in accordance with ANSI Z21.5.1/CSA 7.1 or ANSI Z21.5.2/CSA 7.2 and shall be installed in accordance with the manufacturer's instructions.

617.1 General. Pool and spa heaters shall be ~~tested-listed~~ in accordance with ANSI Z21.56/CSA 4.7 and shall be installed in accordance with the manufacturer's instructions.

618.1 General. Forced-air warm-air furnaces shall be ~~tested-listed~~ in accordance with ANSI Z21.47/CSA 2.3 or UL 795 and shall be installed in accordance with the manufacturer's instructions.

620.1 General. Unit heaters shall be ~~tested-listed~~ in accordance with ANSI Z83.8/CSA 2.6 and shall be installed in accordance with the manufacturer's instructions.

621.1 General. Unvented room heaters shall be ~~tested-listed~~ in accordance with ANSI Z21.11.2 and shall be installed in accordance with the conditions of the listing and the manufacturer's instructions. Unvented room heaters utilizing fuels other than fuel gas shall be regulated by the International Mechanical Code.

622.1 General. Vented room heaters shall be ~~tested-listed~~ in accordance with ANSI Z21.86/CSA 2.32, shall be designed and equipped as specified in Section 602.2 and shall be installed in accordance with the manufacturer's instructions.

623.1 Cooking appliances. Cooking appliances that are designed for permanent installation, including ranges, ovens, stoves, broilers, grills, fryers, griddles, hot plates and barbecues, shall be ~~tested-listed~~ in accordance with ANSI

Z21.1, ANSI Z21.58/CSA 1.6 or ANSI Z83.11/CSA 1.8 and shall be installed in accordance with the manufacturer's instructions.

624.1 General. Water heaters shall be ~~tested-listed~~ in accordance with ANSI Z21.10.1/CSA 4.1 ~~and or~~ ANSI Z21.10.3/CSA 4.3 and shall be installed in accordance with the manufacturer's instructions. Water heaters utilizing fuels other than fuel gas shall be regulated by the International Mechanical Code.

625.1 General. Refrigerators shall be ~~tested-listed~~ in accordance with ANSI Z21.19/CSA 1.4 and shall be installed in accordance with the manufacturer's instructions. Refrigerators shall be provided with adequate clearances for ventilation at the top and back, and shall be installed in accordance with the manufacturer's instructions. If such instructions are not available, not less than 2 inches (51 mm) shall be provided between the back of the refrigerator and the wall and not less than 12 inches (305 mm) above the top.

626.1 General. Gas-fired toilets shall be ~~tested-listed~~ in accordance with ANSI Z21.61 and installed in accordance with the manufacturer's instructions.

627.1 General. Gas-fired air-conditioning appliances shall be ~~tested-listed~~ in accordance with ANSI Z21.40.1/~~CGA-CSA~~ 2.91 or ANSI Z21.40.2/~~CGA-CSA~~ 2.92 and shall be installed in accordance with the manufacturer's instructions.

628.1 General. Illuminating appliances shall be ~~tested-listed~~ in accordance with ANSI Z21.42 and shall be installed in accordance with the manufacturer's instructions.

630.1 General. Infrared radiant heaters shall be ~~tested-listed~~ in accordance with ANSI Z83.19 or Z83.20 and shall be installed in accordance with the manufacturer's instructions.

636.1 General. Permanently fixed-in-place outdoor decorative appliances shall be ~~tested-listed~~ in accordance with ANSI Z21.97 and shall be installed in accordance with the manufacturer's instructions.

Reason:

This proposal is intended to require the appliance to be listed by an organization acceptable to the code official. Listed, as defined in Section 202 includes a requirement that an approved agency posts the certification record in a public forum which is available to the Authority Having Jurisdiction for verification purposes. Testing, according to Section 301.4.1, does not require the testing agency to provide a listing or approved products and appliances.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

Manufacturers of gas-fired appliances and gas regulators currently have their products listed by nationally recognized testing laboratories and/or nationally recognized certification bodies. Changing the term "tested" to "listed" will not affect the cost to install these products.

Internal ID: 1155

FG24-18

IFGC: 611.2

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

2018 International Fuel Gas Code

Revise as follows:

611.2 Installation. *Nonrecirculating direct-fired industrial air heaters* shall not be used to supply any area containing sleeping quarters. *Nonrecirculating direct-fired industrial air heaters* shall be installed only in industrial or commercial occupancies. ~~*Nonrecirculating direct-fired industrial air heaters* shall be permitted to provide ventilation air.~~

Reason:

Section 611.1 requires that this appliance be installed in accordance with the manufacturers installation instructions which will place limits on their use. The deletion would coordinate the 2018 National Fuel Gas Code.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The code's installation requirements are not impacted by the change.

Internal ID: 1391

FG25-18

IFGC: 612.2

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

2018 International Fuel Gas Code

Revise as follows:

612.2 Location. ~~Recirculating direct-fired industrial air heaters shall be installed only in industrial and commercial occupancies. Recirculating direct-fired air heaters shall not serve any area containing sleeping quarters. Recirculating direct-fired industrial air heaters shall not be installed in hazardous locations or in buildings that contain flammable solids, liquids or gases, explosive materials or substances that can become toxic when exposed to flame or heat.~~

Reason:

Section 612.3 requires that this appliance be installed in accordance with the manufacturers installation instructions which will place limits on their use. The deletion would coordinate the 2018 National Fuel Gas Code.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

The code's installation requirements are not impacted by this change since section 612.3 would still determine where these heaters can be installed.

Internal ID: 1395

FG26-18

IFGC: 614.6, [M]614.6.1 (New)

Proponent: Brent Ursenbach, representing Salt Lake County Planning and Development Services
(bursenbach@slco.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] 614.6 Makeup air. Installations exhausting more than 200 cfm (0.09 m³/s) shall be provided with makeup air. ~~Where a closet is designed for the installation of a clothes dryer, an opening having an area of not less than 100 square inches (645 mm²) for makeup air shall be provided in the closet enclosure, or makeup air shall be provided by other approved means.~~

Add new text as follows:

[M]614.6.1 Closet Installation. Where a closet is designed for the installation of a clothes dryer, an opening having an area of not less than 100 square inches (645 mm²) for makeup air shall be provided in the closet enclosure, or makeup air shall be provided by other approved means.

Reason:

Section 614.6, Makeup air addresses two different conditions. First, all dryers over 200 CFM, typically a commercial dryer, require makeup air. Second, if any dryer is located in a closet, there must be an opening allowing makeup air into the closet, to replace air exhausted by the dryer. This requirement applies to any dryer installed in a closet, not only 200 CFM dryers. This proposal simply breaks the section into 2 parts, eliminating any confusion.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

This proposal simply divides a single paragraph into two. No additional requirements are added to the code.

Internal ID: 1470

FG27-18

IFGC: 621.2

Proponent: Craig Conner, representing self (craig.conner@mac.com)

2018 International Fuel Gas Code

Revise 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*. Unvented room heaters shall not be installed within new dwelling units.

Reason:

New codes are making new dwelling units significantly tighter. Unvented room heaters are vented directly into the conditioned space. Heating combustion products should not be vented directly into the conditioned space of tight dwellings.

Unvented room heaters should not be used as a primary source of heating. Vented versions of the unvented heaters are commonly available.

In the last code cycle provisions to allow unvented alcohol burning devices were twice rejected in the ICC process. Likewise, unvented gas room heaters should not be allowed.

Cost Impact

The code change proposal will increase the cost of construction .

Vented gas heaters are commonly available. These cost more due the need to provide a vent.

Many builders will not install unvented room heaters due to concerns with NO_x (nitrus oxides), liability, etc. Since they are already choosing not to install unvented heaters, this would have no impact on those builders.

Internal ID: 1788

FG28-18

IFGC: 623.2

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

2018 International Fuel Gas Code

Revise as follows:

623.2 Prohibited location. Cooking appliances designed, tested, *listed* and *labeled* for use in commercial occupancies shall not be installed within dwelling units or within any area where domestic cooking operations occur.

Exceptions:

1. Appliances that are also listed as domestic cooking appliances.
2. ~~Where the installation is designed by a licensed Professional Engineer, in compliance with the manufacturer's installation instructions.~~

Reason:

The new exception #2 was added because at least one state government modified the IFGC to permit commercial cooking appliances to be installed in dwellings if an engineer designed the job. This was done solely because some consumers were demanding commercial cooking appliances in their homes. The marketplace has already taken care of this demand because appliance manufacturers offer many commercial style appliances that are dual listed as both commercial and household appliances. This is already addressed in exception #1. There is no reason to risk occupant safety by installing commercial appliances in dwellings when there are many appliances that are listed for dwelling installation and have the commercial features and capacities that consumers want. Exception # 2 permits cooking appliances listed only for commercial applications to be installed in a dwelling if a licensed professional Engineer designs the kitchen installation and follows the manufacturers installation instructions. This is a contradictory statement because the manufacturers instructions will likely prohibit commercial appliances in dwellings. This is also contrary to Section 301.3 which requires appliances to be listed and labeled for the application in which they are used. Commercial ranges are not listed and labeled for use in a dwelling , therefore it is a code violation whether or not it has the blessing of the design engineer. Some appliance nameplates state that a commercial appliance is not intended for domestic use, so installation in a dwelling would be a violation of the manufacturers instructions as well as Section 301.3. Commercial cooking appliances are not suitable or even safe within dwellings because they require large clearances to combustibles, might require non-combustible floors and require exhaust systems similar to what is required in restaurants. This exception is not only unnecessary, it allows appliance installation instructions, Section 301.3 and the appliance listing to be violated.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

This is strictly editorial.

Internal ID: 939

FG29-18

IFGC: 620.4

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

2018 International Fuel Gas Code

Revise as follows:

620.4 Clearance. Suspended-type unit heaters shall be installed with clearances to *combustible materials* of not less than 18 inches (457 mm) at the sides, 12 inches (305 mm) at the bottom and 6 inches (152 mm) above the top where the unit heater has an internal draft hood or 1 inch (25 mm) above the top of the sloping side of the vertical draft hood. ~~Floor-mounted type unit heaters shall be installed with clearances to *combustible materials* at the back and one side only of not less than 6 inches (152 mm). Where the flue gases are vented horizontally, the 6-inch (152 mm) clearance shall be measured from the draft hood or vent instead of the rear wall of the unit heater. Floor-mounted type unit heaters shall not be installed on combustible floors unless *listed* for such installation.~~

Clearances for servicing all unit heaters shall be in accordance with the manufacturer's installation instructions.

Exception: Unit heaters *listed* for reduced *clearance* shall be permitted to be installed with such clearances in accordance with their listing and the manufacturer's instructions.

Reason:

We are unaware of any newly manufactured floor-mounted unit heaters. The deletion would coordinate the 2018 National Fuel Gas Code.

Cost Impact

The code change proposal will not increase or decrease the cost of construction .

New types of these unit heaters no longer exist.

Internal ID: 1389
