Code Review 2018 Changes to International Codes IFGC/IRC - PLUMBING TAC

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WARNING





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Fuel Gas Code(IFGC) Plumbing Technical Advisory Committee (TAC)

| IFGC Code Change No. | IFGC Section | Change Summary b/t 2 | 2015 IFGC and 2018 IFGC | Change Summary b/t 2017 FGC and 2018 IFGC | Staff comments | | |
|-------------------------|-------------------|---|--|---|----------------|--|--|
| | | Chapter 2 | 2 Definitions | | | | |
| FG1-15 | 202 | Adds new definition of "Gas Fired Toilet." S but for the modification provides for definition that is consistent with IF | | Same as change between 2015 IFGC and 2018 IFGC | | | |
| RCCIWG – Comment | Acco YES a. | Action mmodate Florida Specific Need: (Select Criteria)NO: bcdef ers (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. others (Explain): | No Action Needed | | | |

2018 International Fuel Gas Code/International Residential Code/Plumbing TAC

| FG2-15 | 202 | general appliance installation residential CNG equipment. T inconsistency in the current IF 413.4 currently refers to this e Cost Impact: Will not increase The change does not impact a | between 20 | | C, 2018 IFGC | | | |
|------------------|------------------|--|--|------|--|--|------------|--|
| RCCIWG – Comment | Acc YES a. | Action ommodate Florida Specific Need: (Select Criteria)NO: bcdef ers (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. others (Explain): | | No Action Needec | | Commission | |
| FG3-15 | 202 | Revises definition of "Appliance Harmonize the designation an CONNECT fittings and joints t Cost Impact: Will not increase Change is editorial and has | d definition of PRESS- hroughout the code. e the cost of construction. | betv | ne as change veen 2015 C and 2018 C | | | |
| RCCIWG – Comment | Acc YES a. | Action ommodate Florida Specific Need: (Select Criteria)NO: bcdef ers (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. b. c. d. e. Others (Explain): | | No Action Needec | | Commission | |

| FG4-15 | 202 | Revises definition of "Central Furnace." The IFGC code requirements do not differentiate between the various furnace types proposed to be deleted and the terms do not appear in the code. Definitions for Central Furnace and Forced-air type will remain in the code. Cost Impact: Will not increase the cost of construction. Furnaces described by the deleted definitions are covered under the remaining two definitions and their installation are not impacted by this change. | Same as change between 2015 IFGC and 2018 IFGC | |
|---|------------------|---|---|--|
| RCCIWG – Comment Impactful (Explain) | Acc YES a. | CAction Commission Action ommodate Florida Specific Need: Accommodate Florida Specific Need: (Select Criteria) NO: b. c. d. e. f. a. b. c. d. e. f. Others (Explain): | No Action Needed | TAC Commission Image: Commission Image: Commission |
| FG5-15 | 202 | Revises definition of "Piping." The term brass was replaced with copper alloy throughout the IFGC (S) extracted sections. The definition revision coordinates with those changes. The copper industry no longer refers to brass using the term copper alloy. Cost Impact: Will not increase the cost of construction. Same material different name. | Same as change between 2015 IFGC and 2018 IFGC | |

| RCCIWG – Comment | | TAC Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. others (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain): | | No Action Needed | Commission | |
|------------------|-----|---|--|------|--|------------|--|
| FG6-15 | 202 | various appliance regulator ty in the code. Cost Impact: Will not increas | s do not differentiate between the ypes and the terms do not appear se the cost of construction. ons are deleted are covered by | betw | ne as change veen 2015 C and 2018 C | | |
| RCCIWG – Comment | | TAC Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. b. c. d. e. others (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain): | | No Action Needed | | |
| FG7-15 | 202 | added into Section 416.5. Cost Impact: Will not increas The term is currently undefine | n monitoring regulator that was | betw | ne as change veen 2015 C and 2018 C | | |

| RCCIWG – Comment | | TAC Action | Commission Action | | | TAC | Commission | |
|---------------------|-----|---|---|------------|------------------|-----|------------|---|
| Impactful (Explain) | | Accommodate Florida Specific Need: | Accommodate Florida Specific Need: | - | No Action Needed | | | |
| | | YES (Select Criteria) NO: a. b. c. d. e. f. | YES (Select Criteria) NO: a. b. c. d. e. f. | | Overlapping | | | |
| | | Others (Explain): | Others (Explain): | | provisions | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| FG8-15 | 202 | Adds definition of "Series Regu | ulator." | | ne as change | | | |
| | | | | | veen 2015 | | | |
| | | Added a definition for the term | monitoring regulator that was | IFG IFG | C and 2018 | | | |
| | | added into Section 416.5. | | IFG | | | | |
| | | Cost Impact: Will not increase | e the cost of construction. | | | | | |
| | | | | | | | | |
| | | The new definition for a term u | | | | | | |
| | | change the installation require | ments and therefore has no | | | | | |
| RCCIWG – Comment | | impact on installation cost. | Commission Action | | | | | 1 |
| | | Accommodate Florida Specific Need: | Accommodate Florida Specific Need: | | No Action Needed | TAC | Commission | |
| Impactful (Explain) | | YES (Select Criteria) NO: | YES (Select Criteria) NO: | | | | | |
| | | abcdef Others (Explain): | abcdef Others (Explain): | | provisions | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| FG10-15 | 202 | Revises definition of "Unit Hea | ter." | San | ne as change | | | |
| | | | | | veen 2015 | | | |
| | | The original proposal essential | | | C and 2018 | | | |
| | | heaters are intended for install | | IFG | C | | | |
| | | | definition, cite unit heaters with | | | | | |
| | | ducts to be in violation of the c | | | | | | |
| | | the use of ducts." | ment to remove the term "without | | | | | |
| | | | | | | | | |
| | | Cost Impact: Will not increase | e the cost of construction. | | | | | |
| | | | e the installation requirements of | | | | | |

| | unit heaters. | | | |
|------------------|---|--|--|----------------------------|
| RCCIWG – Comment | TAC Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. b. c. d. e. others (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain): | No Action Needed | TAC Commission I |
| FG12-15 | and decorative gas appliance occupancies except where s appliances installed in a pub not within smoke compartme areas. The code change wa Committee. The modification some of which are already a 2 in the list are appropriately paragraph item 4 would be of Cost Impact : Will not increase | uch appliances are direct-vent lic lobby and waiting areas that are ents containing patient sleeping is further modified by the in deletes the list of 5 requirements, ddressed by the codes items 1 and y combined and located in main lifficult to enforce. Ise the cost of construction not permitted by the federal CMS | Same as change between 2015 IFGC and 2018 IFGC | |
| RCCIWG – Comment | TAC Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. others (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain): | No Action Needed | TAC Commission I |
| FG-17 | and each pipe fitting, utilized | 01.9 "Identification" to add nt of each length of pipe and tubing I in a fuel gas system, bearing the turer. Short lengths of steel pipe | Same as change between 2015 IFG, 2018 IFGC and 2017 FGC | No action is needed |

| | that are cut from longer pipe stock where the stock has identification markings. It is common practice to cut short lengths of pipe from longer pipe stock. In those cases the identification marks may not appear on the cut pieces. The code change was further modified by the Committee to remove the limitation for pipe to be cut and threaded in the field, because such operations can occur in other locations such as fabrication shops.Cost Impact: Will not increase the cost of construction The proposal provides alternate methods to meet current code requirements. |
|------------------|---|
| RCCIWG – Comment | TAC Action Commission Action Accommodate Florida Specific Need: Accommodate Florida Specific Need: YES (Select Criteria) NO: a. b. c. Others (Explain): Others (Explain): |
| FG20-15 | 401.10Revises section 401.10 Third Party Certification. Piping materials standards. Piping, tubing and fittings shall be manufactured to the applicable referenced standards, specifications and performance criteria listed in Section 403 of this code and shall be identified in accordance with Section 401.9.Same as change between 2015 IFGC, 2018 IFGC and 2017 FGC.No action is needed.Cost Impact: Will not increase the cost of construction |

| RCCIWG – Comment | A M a | AC Action accommodate Florida Specific Need: ES (Select Criteria)NO: bcdef thers (Explain): Revises Section 404.11 Prote | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) abcd ef Others (Explain): | | No Action Needed | | Commission | |
|---------------------|-------------|--|--|------|--|-----|------------|--|
| | | pipe or tubing exposed to corr condition or moisture, shall be Sections 404.11.1 through 40 approved manner with additio requirements and reorganizes | rosive action, such as soil e protected in accordance with 4.11.5. The proposal replaces nal enforceable code s the material for clarity dopted into the 2015 National /NFPA 54. | betv | ween 2015 C and 2018 | | | |
| RCCIWG – Comment | | AC Action ccommodate Florida Specific Need: | Commission Action Accommodate Florida Specific Need: | | | TAC | Commission | |
| Impactful (Explain) | ۲ a | ES (Select Criteria) . b. c. d. e. f. thers (Explain): | YES (Select Criteria) NO: a. b. c. d. e. f. Others (Explain): | | No Action Needed | | | |
| FG25-15 | 404.14 | Revises Section 404.14 to allo underground beneath building encasement system listed for installed. The code change w Committee to clarify that the s intended application as oppos | as as long as a piping or installation beneath buildings be vas further modified by the system must be listed for the sed to any application. | betv | ne as change ween 2015 C and 2018 C | | | |

| | | will result in cost savings beca installed simultaneously. | -engineered encasement system use the piping and conduit are | | | |
|------------------|---------------|---|--|---|------------|--|
| RCCIWG – Comment | YES (So a. | tion modate Florida Specific Need: elect Criteria)NO: bcdef : (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain): | No Action Needed Overlapping provisions | | |
| FG26-15 | 404.17.3 | copper tracer wire or other app specifically designed for that p to underground nonmetallic pil specifically designed as a trac have allowed these products to traditional wire. The 2015 Nati | er locator. Several gas utilities o be used in place of the onal Fuel Gas Code, ANSI 1.7.3 was revised to allow these e the cost of construction | Same as change between 2015 IFGC and 2018 IFGC | | |
| RCCIWG – Comment | YES (So a. | tion modate Florida Specific Need: elect Criteria)NO: bcdef : (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain): | No Action Needed Overlapping provisions | Commission | |

| FG29-15 | 409.5.1 | dryers, to be considered to be installed behind such appliance shutoff valve installed behind | cooking appliances and clothes provided with access where ces. To clarify that an appliance or beside a movable appliance is can be accessed by moving the | betw | ne as change veen 2015 C and 2018 C | | | |
|---------------------|------------------|--|--|------|--|-----|------------|--|
| RCCIWG – Comment | | Action ommodate Florida Specific Need: | Commission Action Accommodate Florida Specific Need: | | | TAC | Commission | |
| Impactful (Explain) | YES | (Select Criteria) NO: | YES (Select Criteria) NO: | | No Action Needed | | | |
| | | bcdef ers (Explain): | abcdef Others (Explain): | | Overlapping provisions | | | |
| | | | | | | | | |
| FG31-15 | 409.7 | Adds new section 409.7 requi tubing systems to be supported Shutoff valves require indeper possible twisting of the tubing Cost Impact: Minimal cost in using low cost brackets to built | ed independently of the tubing. Indent support to prevent the when operating the valve. | betw | te as change veen 2015 C and 2018 C | | | |
| RCCIWG – Comment | Acc YES a. | Action pommodate Florida Specific Need: (Select Criteria)NO: bcdef ers (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. others (Explain): | | No Action Needed | | | |

| FG-32-15 | 410.2 | required where the MP regulator serves an appliance that has betw a pressure test port on the gas control inlet side and the IFGC | as change reen 2015 and 2018 IFGC | |
|------------------|--------------------|---|--|--------|
| RCCIWG – Comment | Acco YES a. | Action Commission Action Accommodate Florida Specific Need: Select Criteria) D. C. d. e. f. | TAC Comm No Action Needed | ission |
| FG33-15 | 410.4 Chapter 8 | in accordance with ANSI Z21.93/CSA 6.30, and shall be sized between | ns change n 2015 nd 2018 | |

| RCCIWG – Comment | Acc YES a. | CAction Ommodate Florida Specific Need: (Select Criteria) b. c. d. e. f. ers (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain): | | No Action Needed | Commission | |
|------------------|----------------------|--|--|------|--|------------|--|
| FG 34-15 | 411.1 411.4 (New) | laboratories and educational for Section 411.4 as an option for piping system. Also adds new type burners which states that | r connecting appliances to the section 411.4 Injection Bunsen- t Bunsen-type burners used in acilities shall be connected to the listed or unlisted hose. | betv | ne as change ween 2015 C and 2018 C | | |
| RCCIWG – Comment | Acc YES a. | Recognizes a product that is CAction ommodate Florida Specific Need: (Select Criteria) NO: b. c. d. b. c. d. errs (Explain): Explain | Commission Action Accommodate Florida Specific Need: | | No Action Needed | Commission | |
| FG37-15 | 618.2 | Deletes section 618.2 because language that was removed fr and is not consistent with curr Cost Impact: Will not increase This deletion is editorial in r | om the IMC and IRC last cycle ent practice. e cost of construction. | | | | |

| RCCIWG – Comment | A Y a | TAC Action Accommodate Florida Specific Need: (ES (Select Criteria) /ES (Select Criteria) . b. . b. . d. . d. . f. . Dthers (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. b. c. d. e. others (Explain): | | No Action Needed | | Commission | - |
|------------------|-------------|---|---|------|--|----------|------------|---|
| FG40-15 | 623.2 | appliances listed and labeled in a dwelling unit or within any operations occur with the exce also listed as domestic cookin installation is designed by a list compliance with the manufact The code change was further make sure that the manufactur adhered to in addition to the d the engineer. Cost Impact: Will not increas | ng appliances or where the censed Professional Engineer, in turer's installation instructions. modified by the Committee to urer's installation instruction are lesign requirements specified by the the cost of construction. occur under 105.2 and therefore | betw | ne as change veen 2015 C and 2018 C | | | |
| RCCIWG – Comment | A | FAC Action Accommodate Florida Specific Need: (ES (Select Criteria) . b. . b. . b. . d. . b. . d. . f. . Dthers (Explain): | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain): | | No Action Needed | | Commission | - |
| FG43.15 | 202 | Revises definition of "Piping." The proposal removes brass I and copper-alloy is the term u manufactured where copper is | | betw | ne as change veen 2015 C and 2018 C | <u> </u> | | 4 |

| RCCIWG - Comment TAC Action Commission Action Impactful (Explain) Accommodate Florida Specific Need: Accommodate Florida Specific Need: NO: Accommodate Florida Specific Need: NO: Accommodate Florida Specific Need: NO: Accommodate Florida Specific Need: Overlapping Overlapping 0 Others (Explain): Others (Explain): Others (Explain): Others (Explain): Impactful (Explain): Impactful (Explain): Impactful (Explain): | | brass and bronze. Cost Impact: Will not increase This proposal will not increase change is only to update the r already in the code. | the cost of construction as this | | | |
|---|---|---|--|-------------|------------|--|
| | Impactful (Explain) According YES (a. | mmodate Florida Specific Need: [Select Criteria] | Accommodate Florida Specific Need: YES (Select Criteria) NO: a. b. c. d. e. f. | Overlapping | Commission | |

2018 International Fuel Gas Code® IFGC Code Resource Report



12/18/2017 International Code Council

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2018 International Fuel Gas Code® IFGC Code Resource Report

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This report includes the 2015 approved codes changes that resulted in the 2018 *International Fuel Gas Code*®.

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HOW TO USE THE REPORT

This report makes it possible for the reader to examine, for any given successful code change, the text of the proposed change, committee actions and modifications, assembly actions, successful public comments, and final action results.

SOURCE DOCUMENTS

The code development cycle involves the publication of four documents, the result of 1) public submittal of proposed changes, 2) a public hearing and committee/assembly actions, 3) submittal of public comments to the committee or assembly actions, and 4) final action results. Under each code change number in this report, material corresponding to an individual proposed change has been drawn from each of these four publications.

Unsuccessful proposed changes have not been included since they do not directly affect the final content of the code section.

ABBREVIATIONS FOR ACTIONS

The following abbreviations are used to signify committee or final action:

Legend for 2015 and 2016 Code Change Cycle Documentation:

- AS = Approved as Submitted
- D = Disapproved
- AM = Approved as Modified by the Code Committee
- AMPC = Approved as Modified by a Public Comment
- WP = Withdrawn by Proponent

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Code Change No: FG1-15

Original Proposal

FG1-15

202 (New)

Proponent: Donald Jones, None, representing Self

Add new definition as follows:

SECTION 202 DEFINITIONS

TOILET, GAS-FIRED An appliance, comprised of a toilet and an incinerator that is manufactured and installed as one complete unit, and is used to reduce human fecal matter to ash

Reason: Water heater, boilers, and furnaces are defined in this code. Less common appliances such as gas-fired air conditioners and log lighters are also defined in this code. Gas-fired toilets are referenced in 626.1 and 626.2, but they are not defined in this code.

Cost Impact: Will not increase the cost of construction. This is a definition only. It will not increase the cost of construction.

Report of Committee Action Hearings

FG1-15

Committee Action:

TOILET, GAS-FIRED. An A packaged and completely assembled appliance, comprised of containing a toilet and an incinerator that is manufactured and installed as one complete unit, and is used to reduce human fecal matter to ash incinerates refuse instead of flushing it away with water.

Committee Reason: Approval is based on the proponent's reason statement. The modification makes the definition consistent with the ANSI standard for such appliances.

Assembly Action:

Final Action Results

FG1-15

2018 IFGC Code Resource Report

AM

Approved as Modified

19

Code Change No: FG2-15

Original Proposal

FG2-15

202

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

Revise as follows:

SECTION 202 DEFINITIONS

[M] APPLIANCE. Any apparatus or device that utilizes a fuel or <u>a</u> raw material <u>as a fuel</u> to produce light, heat, power, refrigeration or air conditioning. <u>Also, an apparatus that compresses fuel gases.</u>

Reason: A new generation of residential CNG fueling systems are under development that would be design certified to a new ANSI standard. These appliances would not be considered an appliance under the current definition. They will consume electricity to compress fuels. The revision will ensure that all of the IFGC's general appliance installation requirements are also applied to residential CNG equipment. The change would also correct an inconsistency in the current IFGC where Sections 413.2.3 and 413.4 currently refers to this equipment as appliances.

Cost Impact: Will not increase the cost of construction.

The change does not impact appliance installation costs for those already covered by the definition.

Report of Committee Action Hearings

FG2-15

Committee Action:

Committee Reason: Approval was based upon the proponent's published reason statements.

Assembly Motion:

| Final Action Results | | | | | |
|----------------------|----|--|--|--|--|
| FG2-15 | AS | | | | |

Disapproved

Approved as Submitted

2

Code Change No: FG3-15

Original Proposal

FG3-15

202

Proponent: Curtis Dady, Viega, LLC, representing Viega, LLC (curtis.dady@viega.us)

Revise as follows:

SECTION 202 DEFINITIONS

JOINT, MECHANICAL. A general form of gas-tight joints obtained by the joining of metal parts through a positive holding mechanical construction, such as press press-connect joint, flanged joint, threaded joint, flared joint or compression joint.

Reason: Harmonize the designation and definition of PRESS-CONNECT fittings and joints throughout the code. Both referenced standards (ANSI LC-4/CSA 6.32 and ASME B16.51) listed in the code use the designation "press-connect" in the title and body of the standard as well as code sections IPC 605.14.5, IRC P2906.18 and IRC G2414.10.2.

Cost Impact: Will not increase the cost of construction Change is editorial and has no effect on installation.

Report of Committee Action Hearings

FG3-15

| Committee Action: | Approved as Submitted | | |
|--|-----------------------|--|--|
| Committee Reason: Approval was based upon the proponent's published reason statements. | | | |
| Assembly Action: | None | | |
| Final Action Results | | | |
| FG3-15 | AS | | |

Code Change No: FG4-15

Original Proposal

FG4-15

202

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

Revise as follows:

SECTION 202 DEFINITIONS

FURNACE, CENTRAL

A self-contained *appliance* for heating air by transfer of heat of combustion through metal to the air, and designed to supply heated air through ducts to spaces remote from or adjacent to the *appliance* location.

Dewnflow furnace. A furnace designed with airflow discharge vertically downward at or near the bottom of the furnace.

Forced air furnace with cooling unit. A single-package unit, consisting of a gas-fired forced-air furnace of one of the types listed below combined with an electrically or fuel gas-powered summer air-conditioning system, contained in a common casing.

Forced-air type. A central furnace equipped with a fan or blower that provides the primary means for circulation of air.

Gravity furnace with booster fan. A furnace equipped with a booster fan that does not materially restrict free circulation of air by gravity flow when the fan is not in operation.

Gravity type. A central furnace depending primarily on circulation of air by gravity.

Horizontal forced-air type. A furnace with airflow through the appliance essentially in a horizontal path.

Multiple-position furnace. A furnace designed so that it can be installed with the airflow discharge in the upflow, horizontal or downflowdirection.

Upflow furnace. A furnace designed with airflow discharge vertically upward at or near the top of the furnace. This classification includes "highboy" furnaces with the blower mounted below the heating element and "lowboy" furnaces with the blower mounted beside the heating element.

Reason: The IFGC code requirements do not differentiate between the various furnace types proposed to be deleted and the terms do not appear in the code. Definitions for Central Furnace and Forced-air type will remain in the code.

Cost Impact: Will not increase the cost of construction.

Furnaces described by the deleted definitions are covered under the remaining two definitions and their installation are not impacted by this change.

Report of Committee Action Hearings

FG4-15

Committee Action:

Committee Reason: Approval was based upon the proponent's published reason statements.

Assembly Action:

None

Approved as Submitted

Final Action Results

FG4-15

AS

Code Change No: FG5-15

Original Proposal

FG5-15

202

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

Revise as follows:

SECTION 202 DEFINITIONS

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

Pipe. A rigid conduit of iron, steel, copper, brass copper-alloy or plastic.

Tubing. Semirigid conduit of copper, aluminum, plastic or steel.

Reason: The term brass was replaced with copper alloy throughout the IFGC (S) extracted sections. The definition revision coordinates with those changes. The copper industry no longer refers to brass using the term copper alloy.

Cost Impact: Will not increase the cost of construction. Same material different name.

Report of Committee Action Hearings

AS

FG5-15

Committee Action:

Committee Reason: Approval was based upon the proponent's published reason statements.

Assembly Action:

| Final | Action | Results |
|-------|--------|---------|
| | | |

FG5-15

Approved as Submitted

Code Change No: FG6-15

Original Proposal

FG6-15

202

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

Revise as follows:

SECTION 202 DEFINITIONS

REGULATOR, GAS APPLIANCE.

A pressure regulator for controlling pressure to the manifold of the *appliance*. Types of *appliance* regulators are as follows: Adjustable.

- 1. Spring type, limited adjustment. A regulator in which the regulating force acting upon the diaphragm is derived principally from a spring, the loading of which is adjustable over a range of not more than 15 percent of the outlet pressure at the midpoint of the adjustment range.
- 2. Spring type, standard adjustment. A regulator in which the regulating force acting upon the diaphragm is derived principally from a spring, the loading of which is adjustable. The adjustment means shall be concealed.

Multistage. A regulator for use with a single gas whose adjustment means is capable of being positioned manually or automatically to two or more predetermined outlet pressure settings. Each of these settings shall be adjustable or nonadjustable. The regulator may modulate outlet pressures automatically between its maximum and minimum predetermined-outlet pressure settings.

Nonadjustable.

- 1. Spring type, nonadjustable. A regulator in which the regulating force acting upon the diaphragm is derived principally from a spring, the loading of which is not field adjustable.
- 2. Weight type. A regulator in which the regulating force acting upon the diaphragm is derived from a weightor combination of weights.

Reason: The IFGC code requirements do not differentiate between the various appliance regulator types and the terms do not appear in the code.

Cost Impact: Will not increase the cost of construction

The regulator whose definitions are deleted are covered by the general definition without change in installation requirements.

Report of Committee Action Hearing

FG6-15

Committee Action:

Committee Reason: Approval was based upon the proponent's published reason statements.

Assembly Action:

Final Action Results

FG6-15

AS

Approved as Submitted

Original Proposal

FG7-15

202 (New)

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

Add new definition as follows:

SECTION 202 DEFINITIONS

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.

Reason: Add a definition for the term monitoring regulator that was added into Section 416.5.

Cost Impact: Will not increase the cost of construction

The term is currently undefined but code requirements exist. The new definition does not impact the cost of installation.

Report of Committee Action Hearings

FG7-15

Committee Action:

Committee Reason: Approval was based upon the proponent's published reason statements.

Assembly Action:

Final Action Results

AS

FG7-15

Approved as Submitted

Original Proposal

Code Change No: FG8-15

FG8-15

202 (New)

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

Add new definition as follows:

SECTION 202 DEFINITIONS

Regulator, Series A pressure regulator in series with one or more other pressure regulators.

Reason: Add a definition for the term series regulator that was added into Section 416.5.

Cost Impact: Will not increase the cost of construction

The new definition for a term used within the code does not change the installation requirements and therefore has no impact on installation cost.

Report of Committee Action Hearings

FG8-15

Committee Action:

Committee Reason: Approval was based upon the proponent's published reason statements.

Assembly Action:

Final Action Results

FG8-15

None

Approved as Submitted

AS

Code Change No: FG10-15

Original Proposal

FG10-15

202

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

Delete and substitute as follows:

SECTION 202 DEFINITIONS

UNIT HEATER.

High-static pressure type. A self-contained, automatically controlled, vented appliance having integralmeans for circulation of air against 0.2 inch (15 mm H2O) or greater static pressure. Such appliance is equipped with provisions for attaching an outlet air duct and, where the appliance is for indoor installationremote from the space to be heated, is also equipped with provisions for attaching an inlet air duct. Low-static pressure type. A self-contained, automatically controlled, vented appliance, intended forinstallation in the space to be heated without the use of ducts, having integral means for circulation of air.-Such units are allowed to be equipped with louvers or face extensions made in accordance with the manufacturer's specifications.

A self-contained, automatically controlled, vented, fuel-gas-burning space-heating appliance, intended for installation in the space to be heated without the use of ducts, and having integral means for circulation of air.

Reason: The IFGC code requirements do not differentiate between high- and low-static unit heaters and the terms do not appear in the code. The revised simplified definition is taken from the revised definition in the 2015 National Fuel Gas Code, ANSI Z223.1/NFPA 54. This proposal is offered solely for the purpose of 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 2015 NFGC (ANSI Z223.1) and this proposal will cause the IFGC text to be consistent with such revised text in ANSI Z223.1 (NFGC).

Cost Impact: Will not increase the cost of construction. The definition does not change the installation requirements for unit heaters.

Report of Committee Action Hearings

FG10-15

Committee Action:

Committee Reason: Approval was based on the proponent's published reason statements.

Assembly Motion:

Online Floor Modification:

UNIT HEATER. A self-contained, automatically controlled, vented, fuel-gas-burning space-heating appliance, intended for installation in the space to be heated without the use of ducts, and having integral means for circulation of air.

Public Comments

Public Comment 1:

Proponent: Assembly Action requests Approve as Modified by Successful Assembly Action.

Approved as Modified

Approved as Submitted

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UNIT HEATER. A self-contained, automatically controlled, vented, fuel-gasburning space-heating appliance, intended for installation in the space to be heated without the use of ducts, and having integral means for circulation of air.

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 Modified was successful by a vote of 80.18% (89) to 19.82% (22) by eligible members online during the period of May 14 - May 28, 2015.

Public Comment 2:

Proponent: Brent Ursenbach, representing Utah Chapter ICC (bursenbach@slco.org) requests Approve as Modified by Successful Assembly Action.

UNIT HEATER. A self-contained, automatically controlled, vented, fuel-gasburning space-heating appliance, intended for installation in the space to be heated without the use of ducts, and having integral means for circulation of air.

Commenter's Reason: The successful assembly action deleted the phrase without the use of ducts from the original proposal. The original proposal failed to recognize many unit heater manufacturers produce unit heaters designed with centrifugal high static blower, specifically to move air through duct systems. The original proposal essentially defines in code, that all unit heaters are intended for installation without the use of ducts. Code officials will through this definition, cite unit heaters with ducts, to be in violation of the code. See the following websites for unit heaters in current production, designed for use with ducts.

The Reznor Unit Heater Catalog includes Models UDBS, UDBP and B, all equipment with centrifugal (duct-able) blowers capable of handling up to .5" w.c. of external static pressure on smaller models and up .75" w.c. external static pressure on larger models. http://www.rezspec.com/files/C-UH_vH11.pdf

The Modine Unit Heater Catalog includes Models HDB, BDP, BTS and BTC, all with centrfugal blowers designed for use with ducts. http://www.modine.com/publications/litsearch.php?srchcrit=75-136

Sterling TC and SC series unit heaters: http://www.sterlinghvac.com/products/indoor/blower-unit-heaters.asp#.VanFm_IVhBc

| Final Action R | esults |
|----------------|--------|
| FG10-15 | AMPC2 |

Code Change No: FG11-15

Original Proposal

FG11-15

303.3

Proponent: Timothy Manz, representing Association of Minnesota Building Officials (tmanz@ci.blaine.mn.us)

Revise as follows:

303.3 Prohibited locations. Appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage closets or surgical rooms, or in a space that opens only into such rooms or spaces, except where the installation complies with one of the following:

- 1. The *appliance* is a direct-vent *appliance* installed in accordance with the conditions of the listing and the manufacturer's instructions.
- 2. Vented room heaters, wall furnaces, vented decorative appliances, vented gas fireplaces, vented gas fireplace heaters and decorative appliances for installation in vented solid fuelburning fireplaces are installed in rooms that meet the required volume criteria of Section 304.5.
- **3.** A single wall-mounted unvented room heater is installed in a bathroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 6,000 Btu/h (1.76 kW). The bathroom shall meet the required volume criteria of Section 304.5.
- 4. A single wall-mounted unvented room heater is installed in a bedroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 10,000 Btu/h (2.93 kW). The bedroom shall meet the required volume criteria of Section 304.5.
- 5. The *appliance* is installed in a room or space that opens only into a bedroom or bathroom, and such room or space is used for no other purpose and is provided with a solid weather-stripped door equipped with an *approved* self-closing device. All *combustion air* shall be taken directly from the outdoors in accordance with Section 304.6.
- 6. A gas clothes dryer is installed in a bathroom or toilet room and a permanent opening having an area of not less than 100 square inches is provided that allows the toilet room or bathroom to communicate with a common hallway or common space.

Reason: In older homes the electrical service is not large enough for an electric dryer, so installing a gas dryer is the only option. In many homes it is desirable to have the gas dryer in an over-sized bathroom or toilet room on an upper floor. This provision provides a safe installation by requiring a minimum 100 square inch opening to a common space that ensures adequate natural ventilation is provided.

Cost Impact: Will not increase the cost of construction. This provision will not increase the cost of construction since it provides flexibility in the dryer installation.

Report of Committee Action Hearings

FG11-15

Committee Action:

Approved as Modified

303.3 Prohibited locations. Appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage closets or surgical rooms, or in a space that opens only into such rooms or spaces, except where the installation complies with one of the following:

- 1. The *appliance* is a direct-vent *appliance* installed in accordance with the conditions of the listing and the manufacturer's instructions.
- 2. Vented room heaters, wall furnaces, vented decorative appliances, vented gas fireplaces, vented gas fireplace heaters and decorative appliances for installation in vented solid fuel-burning fireplaces are installed in rooms that meet the required volume criteria of Section 304.5.
- 3. A single wall-mounted unvented room heater is installed in a bathroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 6,000 Btu/h (1.76 kW). The bathroom shall meet the required volume criteria of Section 304.5.
- 4. A single wall-mounted unvented room heater is installed in a bedroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 10,000 Btu/h (2.93 kW). The bedroom shall meet the required volume criteria of Section 304.5.

- 5. The *appliance* is installed in a room or space that opens only into a bedroom or bathroom, and such room or space is **used for no** other purpose and is provided with a solid weather-stripped door equipped with an *approved* self-closing device. All *combustion air* shall be taken directly from the outdoors in accordance with Section 304.6.
- 6. A gas clothes dryer is installed in a <u>residential</u> bathroom or toilet room and <u>having</u> a permanent opening <u>having with</u> an area of not less than 100 square inches is provided that allows the telet room or bathroom to communicate communicates with a common hallway space outside of a sleeping room, bathroom, toilet room, or common spaces storage closet.

Committee Reason: Approval was based on the proponent's published reason statement. The modification replaced the undefined terms common hallway and common space with references to the spaces outside of the room containing the dryer.

Assembly Motion:

Disapproved

Public Comments

Public Comment 1:

Proponent: Bruce Swiecicki, representing Self (bswiecicki@npga.org) requests Approve as Modified by Committee.

Commenter's Reason: The fact is that gas clothes dryers are being installed and used in residential bathrooms. This is necessary because of the shift to scaled down living spaces being utilized today. It is necessary for the code to address these installations so they can be made in a safe manner.

Public Comment 2:

Proponent: Steven Rosenstock, Edison Electric Institute, representing Edison Electric Institute (srosenstock@eei.org) requests Approve as Modified by this Public Comment.

Modify as Follows:

303.3 Prohibited locations. Appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage closets or surgical rooms, or in a space that opens only into such rooms or spaces, except where the installation complies with one of the following:

- 1. The *appliance* is a direct-vent *appliance* installed in accordance with the conditions of the listing and the manufacturer's instructions.
- 2. Vented room heaters, wall furnaces, vented decorative appliances, vented gas fireplaces, vented gas fireplace heaters and decorative appliances for installation in vented solid fuel- burning fireplaces are installed in rooms that meet the required volume criteria of Section 304.5.
- 3. A single wall-mounted unvented room heater is installed in a bathroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 6,000 Btu/h (1.76 kW). The bathroom shall meet the required volume criteria of Section 304.5.
- 4. A single wall-mounted unvented room heater is installed in a bedroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 10,000 Btu/h (2.93 kW). The bedroom shall meet the required volume criteria of Section 304.5.
- 5. The *appliance* is installed in a room or space that opens only into a bedroom or bathroom, and such room or space is used for no other purpose and is provided with a solid weather-stripped door equipped with an *approved* self-closing device. All *combustion air* shall be taken directly from the outdoors in accordance with Section 304.6.
- 6. A <u>gas</u> clothes dryer is installed in a residential bathroom or toilet room having a permanent opening with an area of not less than 100 square inches that communicates with a space outside of a sleeping room, bathroom, toilet room, or storage closet.

Commenter's Reason: This addition will clarify the code, and avoid confusion if a different type of dryer (such as an electric dryer) is installed.

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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 70.09% (75) to 29.91% (32) by eligible members online during the period of May 14 - May 28, 2015.

| Final A | ction Results |
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| FG11-15 | AM |

Original Proposal

FG12-15 303.3.1 (New)

Proponent: John Williams, CBO, Chair, representing Adhoc Health Care Committee (AHC@iccsafe.org)

Add new text as follows:

303.3.1 Fireplaces and decorative appliances in Group I-2 Condition 2 occupancies. Gas fireplace appliances and decorative gas appliances shall be prohibited in Group I-2, condition 2 occupancies except in public lobby and waiting areas that are not within smoke compartments containing patient sleeping areas. Such fireplace appliances and decorative appliances shall be installed in accordance with all of the following:

- 1. The appliances shall be vented to the outdoors.
- 2. <u>The appliances be of the direct-vent type.</u>
- 3. <u>The appliances shall automatically shut off upon activation of the fire alarm system</u> <u>serving the occupancy.</u>
- 4. The appliance controls shall be located where they can be accessed only by facility staff.
- 5. <u>A carbon monoxide detector with a local alarm shall be provided and installed in accordance with</u> Section 915 of the *International Fire Code*.

Reason: The AHC committee is recommending limitations for the use of fuelgas-fired fireplaces and decorative equipment and the restriction of solid-fuel burning fireplaces and appliances in the Group I-2, Condition 2 occupancy. Please note: these are not new requirements for the Group I-2Occupancy facilities but are needed in the I-Codes for coordination of the long-standing provision of the construction and operational requirements for healthcare facilities.

It is standard practice and operational procedure to control the ignition sources in healthcare occupancies that can contain combustible, flammable (and sometimes even explosive) material. Fire risks need to be limited to the maximum extent feasible and specific requirements for these facilities are not currently or are not completely addressed in the I-Codes.

The language proposed in the IFGC prescribes limitations and conditions to provide the necessary safety and limitations of hazards from within the healthcare environments to the fire and ignition sources inherent to all gas-fired fireplaces and appliances. Combustion air has been restricted from being drawn from healthcare environments extending beyond the last decade and is not a new requirement.

The physical separation of the combustion chambers of gas-fired fireplaces and equipment is required to separate and provide a barrier between the ignition sources and the environmental air within healthcare occupancies. All combustion air is required to be taken directly from the exterior of the building in accordance with an existing exception that is provided for in IFGC Section 303.3.

The placement of solid fuel burning fireplaces and appliances, both decorative and heating, creates conditions where open flames that are not otherwise able to be controlled or extinguished like the similar gas-fed and fired appliances. This is why the Adhoc Healthcare Committee is proposing their restriction instead of a limitation with operational and special control equipment.

The code sections that address the installation limitations of fuelgas-fired fireplaces and appliances will also provide alternative means for compliance for existing facilities. Given the hazards present with these appliances in the Group I-2, Condition 2 Occupancies, the proposed IFC requirements will be 'retro-active' requirements for healthcare occupancies (Group I-2);

The proposals to the IFC that are being put forth by the Adhoc Healthcare Committee have been drafted to clarify, restrict and limit the ignition source hazards in healthcare occupancies and also will reference similar requirements being proposed in the IBC, IMC AND IFGC. For instance, solid fuel heating appliances are limited by other requirements of the IMC which is why heating appliances are not needed to be referenced in this section of the *IFGC*.

There was a concern mentioned during testimony at the code hearings for the 2012 l-codes that the AHC code change proposals placing restrictions on solid fuel burning fireplaces and appliances and fuel gas-fired fireplaces and appliances might be misinterpreted to prohibit mechanical heating equipment elsewhere regulated in the IMC.

The ICC Ad Hoc Committee on Healthcare (AHC) has just completed its 4th year. The AHC was established by the ICC Board to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. This is a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Information on the AHC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the AHC effort can be downloaded from the AHC website. <u>http://www.iccsafe.org/cs/AHC/Pages/default.aspx</u>

Cost Impact: Will not increase the cost of construction.

Wood burning fireplaces are not permitted by the federal CMS regulations, therefore, there is no change in cost of construction.

FG12-15

Committee Action:

Approved as Modified

303.3.1 Fireplaces and decorative appliances in Group I-2 Condition 2 occupancies. Gas fireplace appliances and decorative gas appliances shall be prohibited in Group I-2, condition 2 occupancies except where such appliances are direct- vent appliances installed in public lobby and waiting areas that are not within smoke compartments containing patient sleeping areas. Such fireplace appliances and decorative appliances shall be installed in accordance with all of the following:

- 1. The appliances shall be vented to the outdoors.
- 2. The appliances be of the direct-vent type.
- 3. The appliances shall automatically shut off upon activation of the fire alarm system serving the occupancy.
- 4. The appliance controls shall be located where they can be accessed only by facility staff.
- 5. A carbon monoxide detector with a local alarm shall be provided and installed in accordance with Section 915 of the International Fire Code.

Committee Reason: Approval was based on the proponent's published reason statements. The modification deletes the list of 5 requirements, some of which are already addressed by the codes. Items 1 and 2 in the list are appropriately combined and located in the main paragraph. Item 4 would be difficult to enforce.

Assembly Action:

None

Public Comment

Public Comment 1:

Proponent: John Williams, CBO, representing Adhoc Healthcare Committee (AHC@iccsafe.org) requests Approve as Modified by this Public Comment.

Further Modify as Follows:

303.3.1 Fireplaces and decorative appliances in Group I-2 Condition 2 occupancies. Gas fireplace appliances and decorative gas appliances shall be prohibited in Group I-2, condition 2 occupancies except where such appliances are *direct-vent appliances* installed in public lobby and waiting areas that are not within smoke compartments containing patient sleeping areas. <u>The appliance controls shall be located</u> where they can be accessed only by facility staff. Such fireplaces shall comply with <u>Sections 501.2 and</u> 604.1 and Section 915 of the *International Fire Code*.

Commenter's Reason: The committee was concerned that the other criteria are already addressed elsewhere, which is generally the case. However due to the unique application to Group I-2 Condition 2 occupancies the sections addressing these criteria need to be referenced. The one criteria that is not addressed is the access only by facility staff, which is a key requirement to meet current federal regulations. This type of access can be in a separate room, located at a nurses station or similar staff area, or a key switch at the unit where the staff is the only group carrying the key The language selected for this public comment would cover any of those solutions.

The ICC Ad Hoc Committee on Healthcare (AHC) has just completed its 4th year. The AHC was established by the ICC Board to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. This is a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Information on the AHC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the AHC effort can be downloaded from the AHC website at: Adhoc Healthcare.

| Final Action Results | | | | |
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| FG12 | 2-15 | AMPC1 | | |

Code Change No: FG17-15

Original Proposal

FG17-15

401.9

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

Revise as follows:

401.9 Identification. Each length of pipe and tubing and each pipe fitting, utilized in a fuel gas system, shall bear the identification of the manufacturer.

Exceptions:

- <u>1. Steel pipe sections that are: two feet and less in length, cut from longer sections of pipe in the field</u> and threaded in the field.
- 2. Steel pipe fittings 2 inch and less in size.
- 3. Where identification is provided on the product packaging or crating.
- 4. Where other approved documentation is provided.

Reason: The new exceptions would allow the following:

1. Short lengths of steel pipe that are cut from longer pipe stock where the stock has identification markings. It is common practice to cut short lengths of pipe from longer pipe stock. In those cases the identification marks may not appear on the cut pieces.

2. Small fittings such as bushings and couplings where markings have not been traditionally been included. These small diameter fittings are commonly used in low pressure gas piping systems and represent an extremely low risk of failure.

3. Where the packaging or documentation for the part has the manufacturer's identification but the part does not. Very small fittings and accessories often come in packaging that have the manufacturer's identification. At least one State, Georgia, has amended the IFGC to allow such an exception. The GA text states "401.9 Identification. Each length of pipe and tubing utilized in a fuel gas system shall bear the identification of the manufacturer. It's not provided on the packaging or crating or by other approved documentations, each pipe fitting, utilized in a fuel gas system shall bear the identification of the manufacturer."

Cost Impact: Will not increase the cost of construction.

The proposal provides alternate methods to meet current code requirements.

Report of Committee Action Hearings

FG17-15

Committee Action:

Approved as Modified

Disapproved

401.9 Identification. Each length of pipe and tubing and each pipe fitting, utilized in a fuel gas system, shall bear the identification of the manufacturer.

Exceptions:

- 1. Steel pipe sections that are: two feet and less in length and cut from longer sections of pipe in the field and threaded in the field.
- 2. Steel pipe fittings 2 inch and less in size.
- 3. Where identification is provided on the product packaging or crating.
- 4. Where other approved documentation is provided.

Committee Reason: There is no technical justification for requiring steel pipe and small fittings to be identified. There have been no problems with steel pipe that is not identified. The modification removes the limitation for pipe to be cut and threaded in the field, because such operations can occur in other locations such as fabrication shops.

Assembly Motion:

| Final Action Results | | | | | |
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| | FG17-15 | АМ | | | |

Original Proposal

Code Change No: FG20-15

FG20-15

401.10

Proponent: Bruce Swiecicki, representing National Propane Gas Association (bswiecicki@npga.org)

Delete and substitute as follows:

401.10 Third-party testing and certification. Piping materials standards. Piping, tubing and fittings shall comply with the applicable referenced standards, specifications and performance criteria of this code and shall be identified in accordance with Section 401.9. Piping, tubing and fittings shall either be tested by an approved third-party testing agency or certified by an approved thirdparty certification agency.

Piping, tubing and fittings shall be manufactured to the applicable referenced standards, specifications and performance criteria listed in Section 403 of this code and shall be identified in accordance with Section 401.9.

Reason: This requirement in the International Fuel Gas Code has far ranging impact that wasn't anticipated at the code development hearings. In many cases, there are no certifications or testing requirements to use for flare nuts, tees, pipe nipples, etc. The current requirement in section 401.10 is extremely onerous to the fuel gas industry with very little, if any, benefit to society. Piping, tubing and fittings are fabricated to various materials standards, such as those published by the American Society for Testing and Materials (ASTM) and the American Society of Mechanical Engineers (ASME). The material standards are shown in Section 403 of the IFGC. Third party testing or certification is a needless and unjustified expense to the industry. There has been no data presented to indicate that piping and fittings have been failing in the field.

This proposal will markedly decrease the cost of construction without affecting the safety of the piping installation. The reason is that manufacturers will not be required to pay for a needless exercise of obtaining a third party certification to verify that their manufactured products comply with the appropriate material standards.

Report of Committee Action Hearings

FG20-15

Committee Action:

Committee Reason: Approval is based the proponent's published reason statements.

Assembly Motion:

Public Comment

Public Comment 1:

Proponent: Curtis Dady, representing Viega, LLC (curtis.dady@viega.us) requests Disapprove.

Commenter's Reason: The purpose of a 3rd party listing/certification is to confirm that a product has been independently evaluated other than by the manufacturer. Fuel gases are inherently dangerous and 3rd party certification requirements are a reasonable precaution to hold manufacturers to a minimum level of accountability, especially in the case of new and/or imported products. Viega strongly urges reconsideration of the previous approval.

Final Action Results

FG20-15

AS

Approved as Submitted

Disapproved

Original Proposal

FG24-15

404.11, 404.11.1 (New), 404.11.2 (New), 404.11.2, 404.11.3 (New), 404.11.4 (New), 404.11.1

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

Revise as follows:

404.11 Protection against corrosion. Metallic

<u>Steel</u> pipe or tubing exposed to corrosive action, such as soil condition or moisture, shall be protected in an approved manner. Zinc coatings (galvanizing) shall not be deemed adequate protection for gas *piping* underground. Where dissimilar metals are joined underground, an insulating coupling or fitting shall be used. *Piping* shall not be laid in contact accordance with cinders Sections 404.11.1 through 404.11.5.

Add new text as follows:

404.11.1 Galvanizing Zinc coating shall not be deemed adequate protection for underground gas piping.

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.

Delete without substitution:

404.11.2 **Protective coatings and wrapping.** Pipe protective coatings and wrappings shall be *approved* for the application and shall be factory applied.

Exception: Where installed in accordance with the manufacturer's instructions, field application of coatings and wrappings shall be permitted for pipe nipples, fittings and locations where the factory coating or wrapping has been damaged or necessarily removed at joints.

Add new text as follows:

404.11.3 **Dissimilar metals.** Where dissimilar metals are joined underground, an insulating coupling or fitting shall be used.

404.11.4 **Protection of risers.** Steel risers connected to plastic piping shall be cathodically protected by means of a welded anode, except where such risers are anodeless risers.

Revise as follows:

404.11.1404.11.5 Prohibited use. No change to text.

Reason: The proposal replaces approved manner with additional enforceable code requirements and reorganizes the material for clarity based on new requirements adopted into the 2015 National Fuel Gas Code, ANSI Z223.1/NFPA 54. The reasons for the changes are as follows:

1. Corrosion protection will be required for steel piping. Previously, the section applied to all metallic piping. Copper is the other metallic material that can be used but it is less susceptible to corrosion. Both steel and copper are less often used for low pressure underground piping. Plastic pipe is now the preferred material for underground installations.

2. Unprotected steel piping is allowed where approved. There are some arid environments where corrosion projection may not be needed.

3. The approved projective means allows for materials that are suitable for the environment that they are installed in such as stainless steel.
4. All steel piping must be factory coated since field application often is incomplete containing holidays. It is these holidays that can focus corrosive activity in one spot. Fittings and portions of steel pipe that is striped for installation would be required to be coated using manufacturer's specified materials and methods. This is similar coverage in existing 404.11.2.

5. An approved cathodic protective system is allowed. The NFGC did adopt extensive requirements for these systems but they are not proposed for the IFGC since the IFGC's focus is more on residential and light commercial.

6. New requirement that risers (other than anodeless) be projected. Failures of these risers have been reported to the NFGC committee.

Report of Committee Action Hearings

FG24-15

Committee Action:

Approved as Submitted

Committee Reason: Approval was based on the proponent's published reason statements.

Assembly Action:

| Final Action Results | | |
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| FG24-15 | AS | |

Code Change No: FG25-15

Original Proposal

FG25-15

404.14, Chapter 8

Proponent: Bob Torbin, Omega Flex, Inc., representing Omega Flex, Inc. (bob.torbin@omegaflex.net)

Revise as follows:

404.14 Piping underground beneath buildings. Piping installed underground beneath buildings is prohibited except where the piping is encased in a conduit of wrought iron, plastic pipe, steel pipe, a listed sleeve system or other approved conduit material designed to withstand the superimposed loads. The conduit shall be protected from corrosion in accordance with Section 404.11 and shall be installed in accordance with Section 404.14.1 or 404.14.2.

Reason: The ICC Evaluation Service has 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) since the 2012 edition. One such product listed to LC 1023 is the Omega Flex PS-II CSST system. This product has been used underground without failure or damage for approximately ten years with thousands of installations. Use of pre-assembled encasement systems streamline the installation of gas piping beneath buildings and concrete slabs, and eliminates underground joints on both the conduit and the internal gas piping. This will improve safety when installing such systems by eliminating potential underground leakage sites while providing effective corrosion protection for the piping.

Bibliography: ICC LC-1023: PMG Listing Criteria for Polyethylene Sleeved Corrugated Stainless Steel Tubing: May 2009, ANSI LC-1-2014: Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing

Cost Impact: Will not increase the cost of construction.

The proposed code change will not increase the cost of construction. The use of a pre-engineered encasement system will result in cost savings because the piping and conduit are installed simultaneously. This avoids the labor cost of separately installing and joining the conduit segments and the pulling the piping through the conduit. In addition, the sealing and venting methods (when required) are also integrated within the encasement system, and thus eliminating the need to separately assemble and inject non-standardized sealing/venting components and sealing materials into open-ended conduit around the existing piping.

Report of Committee Action Hearings

Committee Action:

404.14 Piping underground beneath buildings. Piping installed underground beneath buildings is prohibited except where the piping is encased in a conduit of wrought iron, plastic pipe, steel pipe, a piping or encasement system listed sleeve system or for installation beneath buildings, or other approved conduit material designed to with stand the superimposed loads. The conduit shall be protected from corrosion in accordance with Section 404.11 and shall be installed in accordance with Section 404.14.1 or 404.14.2

Committee Reason: Approval was based on the proponent's published reason statements. The modification clarifies that the system must be listed for the intended application as opposed to any application.

Assembly Action:

Final Action Results

FG25-15

AM

Approved as Modified

None

BACK

FG26-15

404.17.3

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

Revise as follows:

404.17.3 Tracer. A yellow insulated copper tracer wire or other approved conductor, or a product specifically designed for that purpose, shall be installed adjacent to underground nonmetallic piping. Access shall be provided to the tracer wire or the tracer wire shall terminate above ground at each end of the nonmetallic piping. The tracer wire size shall be not less than 18 AWG and the insulation type shall be suitable for direct burial.

Reason: There are products specifically designed as a tracer locator. Several gas utilities have allowed these products to be used in place of the traditional wire. The 2015 National Fuel Gas Code, ANSI Z223.1/NFPA 54, in section 7.1.7.3 was revised to allow these products.

Cost Impact: Will not increase the cost of construction. Provides an optional method, the standard method is still allowed.

Report of Committee Action Hearings

FG26-15

Committee Action:

Committee Reason: Approval was based on the proponent's published reason statements.

Assembly Motion:

Final Action Results

FG26-15

Disapproved

Approved as Submitted

AS

BACK

FG29-15

409.5.1

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

Revise as follows:

409.5.1 Located within same room. The shutoff valve shall be located in the same room as the *appliance*. The shutoff valve shall be within 6 feet (1829 mm) of the *appliance*, and shall be installed upstream of the union, connector or quick disconnect device it serves. Such shutoff valves shall be provided with *access*. <u>Shutoff valves</u> <u>serving movable appliances</u>, such as cooking appliances and clothes dryers, shall be considered to be provided with <u>access</u> where installed behind such appliances. *Appliance* shutoff valves located in the firebox of a *fireplace* shall be installed in accordance with the *appliance* manufacturer's instructions.

Reason: To clarify that an appliance shutoff valve installed behind or beside a movable appliance is allowed as long as the valve can be accessed by moving the appliance. There is some field confusion on the term "access" which is being misinterpreted as requiring the valve to be located in sight and readily accessible. At least one State, Georgia, has amended the IFGC to clarify that appliance shutoff valves can be installed in such locations. The State amendment reads: "409.5.4 Appliance valves, Shutoff valves located behind appliances such as range/ovens and clothes dryers shall be considered accessible."

Cost Impact: Will not increase the cost of construction Clarifies the code intent.

Report of Committee Action Hearings

Final Action Results

FG29-15

Committee Action:

Committee Reason: Approval is based on the proponent's published reason statements.

Assembly Action:

FG29-15

AS

Approved as Submitted

2018 IFGC Code Resource Report

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Code Change No: FG31-15

Original Proposal

FG31-15

409.7 (New)

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

Add new text as follows:

409.7 Shutoff valves in tubing systems. Shutoff valves installed in tubing systems shall be rigidly and securely supported independently of the tubing.

Reason: Shutoff valves require independent support to prevent the possible twisting of the tubing when operating the valve. CSST systems already have this requirement in their installation instructions. Valves used in copper tubing systems should also be required to be secured. A similar requirement was added to the 2015 National Fuel Gas Code, ANSIZ223.1/NFPA54, in section 7.3.6.

Cost Impact: Will increase the cost of construction

Minimum cost increase to secure the valve using low cost brackets to building members.

Report of Committee Action Hearings

FG31-15

Committee Action:

Committee Reason: Approval is based on the proponent's published reason statements.

Assembly Action:

Final Action Results

AS

FG31-15

None

Approved as Submitted

BACK

FG32-15

410.2

Proponent: Brent Ursenbach, Salt Lake County, representing Utah Chapter ICC (bursenbach@slco.org)

Revise as follows:

410.2 MP regulators. MP pressure regulators shall comply with the following:

- 1. The MP regulator shall be *approved* and shall be suitable for the inlet and outlet gas pressures for the application.
- 2. The MP regulator shall maintain a reduced outlet pressure under lock-up (no-flow) conditions.
- 3. The capacity of the MP regulator, determined by published ratings of its manufacturer, shall be adequate to supply the *appliances* served.
- 4. The MP pressure regulator shall be provided with *access*. Where located indoors, the regulator shall be vented to the outdoors or shall be equipped with a leaklimiting device, in either case complying with Section 410.3.
- 5. A tee fitting with one opening capped or plugged shall be installed between the MP regulator and its upstream shutoff valve. Such tee fitting shall be positioned to allow connection of a pressure-measuring instrument and to serve as a sediment trap.
- 6. A tee fitting with one opening capped or plugged shall be installed not less than 10 pipe diameters downstream of the MP regulator outlet. Such tee fitting shall be positioned to allow connection of a pressure-measuring instrument. A gas pressure test port on the inlet side of the gas control of an appliance served by the MP regulator is an alternative to the downstream tee fitting, where such appliance is located in the same room as the MP regulator.
- 7. Where connected to rigid piping, a union shall be installed within 1 foot (304 mm) of either side of the MP regulator.

Reason: The purpose of the tee fitting in item 6 is to test the regulator outlet/appliance inlet pressure. As virtually every gas appliance has an inlet pressure test plug, integral within the appliance, it is redundant to add a tee at the regulator, when an appliance is nearby. Further, the integral appliance test ports are 1/8" pipe thread, ready to accept the identical sized fitting on testing gages.

Cost Impact: Will not increase the cost of construction

This proposal will actually reduce cost as it will eliminate the material cost and labor required to install an unnecessary tee fitting and cap, when test ports are available within nearby gas appliances.

Report of Committee Action Hearings

FG32-15

Committee Action:

410.2 MP regulators. MP pressure regulators shall comply with the following:

- 1. The MP regulator shall be approved and shall be suitable for the inlet and outlet gas pressures for the application.
- 2. The MP regulator shall maintain a reduced outlet pressure under lock-up (no-flow) conditions.
- 3. The capacity of the MP regulator, determined by published ratings of its manufacturer, shall be adequate to supply the *appliances* served.
- 4. The MP pressure regulator shall be provided with *access*. Where located indoors, the regulator shall be vented to the outdoors or shall be equipped with a leaklimiting device, in either case complying with Section 410.3.
- 5. A tee fitting with one opening capped or plugged shall be installed between the MP regulator and its upstream shutoff valve. Such tee fitting shall be positioned to allow connection of a pressure-measuring instrument and to serve as a sediment trap.
- 6. A tee fitting with one opening capped or plugged shall be installed not less than 10 pipe diameters downstream of the MP regulator outlet. Such tee fitting shall be positioned to allow connection of a pressure-measuring instrument. A gas-The tee fitting is not required where the MP regulator serves an appliance that has a pressure

Approved as Modified

test port on the <u>gas control</u> inlet side of <u>and</u> the gas control of an appliance served by the MP regulator is an alternative to the downstream tee fitting, where such appliance is located in the same room as the MP regulator.

7. Where connected to rigid piping, a union shall be installed within 1 foot (304 mm) of either side of the MP regulator.

Committee Reason: Approval is based on the proponent's published reason statements. The modification restates the proposed text ina more concise form.

Assembly Action:

| Final Action Results | | | |
|----------------------|----|--|--|
| FG32-15 | АМ | | |
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FG33-15

410.4, Chapter 8

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

Revise as follows:

410.4 Excess flow valves. Where automatic excess flow valves are installed, they shall be listed for the application in accordance with ANSI Z21.93/CSA 6.30, and shall be sized and installed in accordance with the manufacturer's instructions.

Add new standard(s) as follows: ANSI Z21.93/CSA 6.30 - 2013 Excess Flow Valves for Natural and LP Gas with Pressures Up To 5 psig

Reason: A new ANSI standard for excess flow valves has been approved and published. EFVs should be required to meet that standard to help ensure minimum performance.

Cost Impact: Will increase the cost of construction.

Listed EFVs may be more expensive than unlisted units. EFV performance can be a critical life safety issue. Therefore, more expensive valves that help ensure they perform as planned is justified.

Analysis: A review of the standard proposed for inclusion in the code, ANSI Z21.93/CSA 6.30, 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, 2015.

Report of Committee Action Hearings

FG33-15

Committee Action:

Committee Reason: Approval is based on the proponent's published reason statements.

Assembly Action:

Final Action Results FG33-15 AS

Approved as Submitted

FG34-15

411.1, 411.4 (New)

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

Revise as follows:

411.1 Connecting appliances. Except as required by Section 411.1.1, *appliances* shall be connected to the *piping* 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 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 used in conjunction with *listed* and *labeled* appliance connectors.
- 6. Listed and labeled convenience outlets 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 *piping* 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

Add new text as follows:

<u>411.4 Injection Bunsen-type burners Injection Bunsen-type burners used in laboratories and educational</u> <u>facilities</u> <u>shall be connected to the gas supply system by either a listed or unlisted hose.</u>

Reason: The IFGC is currently silent on the use of unlisted connectors for injection burners commonly referred to as Bunsen burners. Unlisted hoses are the only readily available product for such installations and their use is common place. The new code requirement will allow the use of unlisted hoses approved by the AHJ. The revision is based on similar code requirement adopted into the 2015 National Fuel Gas Code, ANSI Z223.1/NFPA 54.

Cost Impact: Will not increase the cost of construction. Recognizes a product that is already used.

Report of Committee Action Hearings

FG34-15

Committee Action:

Committee Reason: Approval was based on the proponent's published reason statement. Code officials have been requiring listed gas connectors instead of the historically used surgical tubing.

Assembly Motion:

Disapproved

Approved as Submitted

Public Comment 1:

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 66.04% (70) to 33.96% (36) by eligible members online during the period of May 14 - May 28, 2015.

| Final Action Results | | |
|----------------------|----|--|
| FG34-15 | AS | |

FG37-15

618.2

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

Delete without substitution:

618.2 Forced-air furnaces. The minimum unobstructed total area of outdoor and return air ducts or openings to a

forcedair warm-air furnace shall be not less than 2 square inches for each 1,000 Btu/h (4402 mm²/W) output rating capacity of the furnace and not less than that specified in the furnace manufacturer's installation instructions. The minimum unobstructed total area of supply ducts from a forced-air warm-air furnace shall be not less than 2 square

inches for each 1,000 Btu/h (4402 mm²/W) output rating capacity of the furnace and not less than that specified in the furnace manufacturer's installation instructions.

Exception: The total area of supply air ducts and outdoor and return air ducts shall not be required to be larger than the minimum size required by the furnace manufacturer's installation instructions.

Reason: This is outdated legacy code language that was removed from the IMC and IRC last cycle and is not consistent with current practice. It's up to the design professional, the requirements from Manual D or the manufacturer of the appliance to determine minimum sizes of ducts and transfer openings, not the code. If these numbers were to be applied, then the code could be condoning an undersized system. IMC 603.2 spells it out. There are too many variables and different situations for just one minimum to work for everything.

Cost Impact: Will not increase the cost of construction. This deletion is editorial in nature.

Report of Committee Action Hearings

FG37-15

Committee Action:

Committee Reason: Approval is based on the proponent's published reason statements.

Assembly Action:

Final Action Results

FG37-15

AS

None

Approved as Submitted

FG40-15

623.2

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

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.

Exception Exceptions: <u>1.</u> Appliances that are also listed as domestic cooking appliances. <u>2.Where the installation is designed by a licensed Professional Engineer.</u>

Reason: There are large residential properties that contain kitchens meant to be used for extensive entertaining purposes. These kitchens are often designed by professional engineers similar to commercial cooking installations. The IFGC currently allow such installations under 105.2 Alternate materials, methods, appliances and equipment. The proposed change would specifically permit these often requested installations. At least on State, Georgia, has amended the IFGC to permit such installation as follows: "Exception: Listed and labeled commercial cooking appliances may be installed in dwelling units and domestic kitchens when designed and accepted by a Georgia licensed Professional Engineer."

Cost Impact: Will not increase the cost of construction.

These installations currently do occur under 105.2 and therefore no new code requirement is being proposed that would increase the cost of installation.

Report of Committee Action Hearings

FG40-15

Committee Action:

Approved as Modified

None

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.

Committee Reason: Homeowners request commercial appliances for their kitchens. The state of Georgia has successfully allowed what the proposal permits. The modification ensures that the appliance manufacturer's instructions are adhered to in addition to the design requirements specified by the engineer.

Assembly Action:

Final Action Results

FG40-15

AM

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Code Change No: FG43-15

Original Proposal

FG43-15

202 (New)

Proponent: Pennie L Feehan, representing Copper Development Association (penniefeehan@me.com)

Revise as follows:

SECTION 202 DEFINITIONS

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

Pipe. A rigid conduit of iron, steel, copper, brass copper-ally or plastic.

Tubing. Semirigid conduit of copper, copper-alloy, aluminum, plastic or steel.

Reason: The proposal removes brass because brass is a copper-alloy and copper-alloy is the term used to identify materials manufactured where copper is the base metal and includes brass and bronze.

Cost Impact: Will not increase the cost of construction.

This proposal will not increase the cost of construction as this change is only to update the name of a material that is already in the code.

Report of Committee Action Hearings

FG43-15

Committee Action:

Committee Reason: Approval is based on the proponent's published reason statements. Approval is consistent with the action taken on FG5-15.

Assembly Action:

Final Action Results

FG43-15

AS

Approved as Submitted