Public Comment No. 13-NFPA 54-2025 [Global Input]

Section A.9.3.2.2

Modify the formula language and key above table A.9.3.2.2(b) as follows:

Move the (bold) Q50 definition at the bottom of the formula key list to the top of the list after "where:". Change the bold, large text to match the rest of the key. The Q50 definition should have originally been part of the formula key. Delete the table reference in brackets at the end of the definition - delete [A.9.3.2.2(b)] - not accurate for this definition nor is a table reference needed.

Change the table reference after the ACHnat formula above the key from [A.9.3.2.2(a)] to [A.9.3.2.2(b)]. Table A.9.3.2.2(a) previously existed in the code - A.9.3.2.2(b) was added to correspond to the new formula addition - b is the correct table reference.

Statement of Problem and Substantiation for Public Comment

The Q50 definition was originally intended to be part of the key for the ACHnat formula. It should be part of the key and in the right place.
The table reference for the ACHnat formula was incorrect - should reference (b) not (a).

Related Item

• PI 21

Submitter Information Verification

Submitter Full Name: Thomas Andrews
Organization: TR Energy Consulting
Street Address:
City:
State:
Zip:

Submittal Date: Fri Apr 18 11:44:55 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: The limitations of the production do not permit other equations to be in the list of variables of other equations and without the move proposed the rest of the tags cannot change.

Public Comment No. 23-NFPA 54-2025 [Global Input]

At some point the standard needs to address the mixing of Natural gas and Hydrogen gas above 20%. My company has several large scale projects that will be fueled by a 70/30%, or greater mixture and we are having trouble on which standard applies. If not willing to add into NFPA 54, should a new NFPA standard be developed as more and more projects will apply in the future.

Statement of Problem and Substantiation for Public Comment

Requirements for hydrogen and natural gas mixtures at & above 20% which the standard does not address

Related Item

• Steel industry

Submitter Information Verification

Submitter Full Name: Louis Donsbach
Organization: US Steel Corporation
Affiliation: US Steel
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 12 07:33:52 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-5-NFPA 54-2025

Statement: Systems using pure hydrogen or at hydrogen admixtures higher than those defined in this code should be designed, installed, and operated in accordance with NFPA 2 as they are outside the scope of this code and NFPA 2 is the recommended code for those systems.

Public Comment No. 26-NFPA 54-2025 [Global Input]

See attached word document for changes to chapter 5 related to the Manual of Style Task Group.

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_5_SD_For_TC.docx	Chapter 5 - CI 69	

Statement of Problem and Substantiation for Public Comment

The proposed changes are bringing chapter 5 in-line with the Manual of Style.

Related Item

• CI 69

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Thu May 15 15:15:26 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-21-NFPA 54-2025
Statement: The changes are bringing chapter 5 in-line with the Manual of Style.

Public Comment No. 38-NFPA 54-2025 [Global Input]

See attached Word Document for changes to chapter 6 from the Manual of Style Task Group

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_6_SD_For_TC.docx	Chapter 6 - CI 82	

Statement of Problem and Substantiation for Public Comment

The proposed changes are to align chapter 6 to the Manual of Style

Related Item

• CI 82

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 17:21:53 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-22-NFPA 54-2025
Statement: The changes are to align chapter 6 to the NFPA Manual of Style.

Public Comment No. 39-NFPA 54-2025 [Global Input]

See attached Word Document for changes to chapter XX from the Manual of Style Task Group

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_7_SD_For_TC.docx	Chapter 7 - CI 71	

Statement of Problem and Substantiation for Public Comment

The proposed changes are to align chapter 7 to the Manual of Style.

Related Item

• CI - 71

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 17:54:02 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-23-NFPA 54-2025
Statement: The changes are to align chapter 7 to the NFPA Manual of Style.

Public Comment No. 40-NFPA 54-2025 [Global Input]

See attached Word Document for changes to chapter 8 from the Manual of Style Task Group"

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_8_SD_For_TC.docx	Chapter 8 - CI 72	

Statement of Problem and Substantiation for Public Comment

The proposed changes are to align chapter 8 to the Manual of Style

Related Item

• CI 72

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 17:57:08 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-24-NFPA 54-2025
Statement: The changes are to align chapter 8 to the NFPA Manual of Style.

Public Comment No. 41-NFPA 54-2025 [Global Input]

See attached Word Document for changes to chapter 9 from the Manual of Style Task Group

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_9_SD_For_TC.docx	Chapter 9 - CI 73	

Statement of Problem and Substantiation for Public Comment

The proposed changes are to align chapter XX to the Manual of Style.

Related Item

• CI 73

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 17:59:33 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-25-NFPA 54-2025
Statement: The changes are to align chapter 9 to the NFPA Manual of Style.

Public Comment No. 42-NFPA 54-2025 [Global Input]

See attached Word Document for changes to chapter 10 from the Manual of Style Task Group

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_10_SD_For_TC.docx	Chapter 10 - CI 78	

Statement of Problem and Substantiation for Public Comment

The proposed changes are to align chapter 10 to the Manual of Style.

Related Item

• CI 78

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 18:01:44 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-26-NFPA 54-2025
Statement: The changes are to align chapter 10 to the NFPA Manual of Style.

Public Comment No. 43-NFPA 54-2025 [Global Input]

See attached Word Document for changes to chapter 11 from the Manual of Style Task Group

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_11_SD_For_TC.docx	Chapter 11 - CI 79	

Statement of Problem and Substantiation for Public Comment

The proposed changes are to align chapter 11 to the Manual of Style.

Related Item

• CI 79

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 18:09:11 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-27-NFPA 54-2025
Statement: The changes are to align chapter 11 to the NFPA Manual of Style.

Public Comment No. 44-NFPA 54-2025 [Global Input]

See attached Word Document for changes to chapter 12 from the Manual of Style Task Group

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_12_SD_For_TC.docx	Chapter 12 CI - 80	

Statement of Problem and Substantiation for Public Comment

The proposed changes are to align chapter 12 to the Manual of Style

Related Item

• CI 80

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 18:10:59 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-28-NFPA 54-2025
Statement: The changes are to align chapter 12 to the NFPA Manual of Style

Public Comment No. 45-NFPA 54-2025 [Global Input]

See attached Word Document for changes to chapter 13 from the Manual of Style Task Group

Additional Proposed Changes

File Name	Description	Approved
54-2024_editorial_review_Chapter_13_SD_For_TC.docx	Chapter 13 - CI 81	

Statement of Problem and Substantiation for Public Comment

The proposed changes are to align chapter 13 to the Manual of Style.

Related Item

• CI 81

Submitter Information Verification

Submitter Full Name: Chris Byers
Organization: Duke Energy/Piedmont Natural Gas
Affiliation: Manual of Style Task Group
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 18:13:08 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-29-NFPA 54-2025
Statement: The changes are to align chapter 13 to the NFPA Manual of Style.

Public Comment No. 47-NFPA 54-2025 [Global Input]

No original or new content was specified

Additional Proposed Changes

File Name	Description	Approved
73721_NFPA_ltr_out.pdf		

Statement of Problem and Substantiation for Public Comment

As noted in several NTSB investigations, building occupants need a warning of a gas leak that encourage them to evacuate to a safe place. Audible alarms provide this encouragement.
Note that, while NTSB Safety Recommendation P-25-15 specifically refers to NFPA 54, we are open to alternative approaches that will result in broad adoption of the requirement for natural gas alarms.

Related Item

- •

Submitter Information Verification

Submitter Full Name: Brandi Baldwin
Organization: NTSB
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 02 09:00:37 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-17-NFPA 54-2025

Statement: NFPA 715 is the standard for fuel gas detection and warning equipment in buildings and structures. Requiring the installation of fuel gas detection is outside the scope of this Code and is under the scope of the relevant building, fire, and life safety codes. The enforcement of fuel gas detection requirements is more applicable to the enforcers of those codes rather than the enforcers of the fuel gas code. Fuel gas detection installation is similar to smoke or carbon monoxide detection installation.

The technical committee is aware of the efforts of the Building and Life Safety Code Committees (NFPA 101 and NFPA 5000) and is supportive of their efforts to develop requirements related to fuel gas detection per occupancy type.

The intent of exempting the scope of NFPA 715 from NFPA 54 is to acknowledge the request for fuel gas detection requirements and provide further explanation on the topic.

Public Comment No. 6-NFPA 54-2025 [Global Input]

Revise Note 1 to Table 6.3.1 (j) to read:

(1) Table does not include effects of pressure drop across the line regulator. Where regulator loss exceeds ~~1/ 2 psi~~1 psi psi (based on a 13 in. outlet pressure). do not use this table. Consult with regulator manufacturer for pressure drops and capacity factors. Pressure drops across a regulator may vary with flow rate.

Statement of Problem and Substantiation for Public Comment

The current Note is design restrictive. With a 5 psi inlet pressure, and a 3.5 psi pressure drop the system will deliver gas at a pressure of 1.5 psi. As the appliance must have an inlet pressure of up to 0.5 psi there is a 1.0 psi drop available for the regulator. This change will allow the system designer more options to design a safe gas system. A regulatory is designed to operate with a 1/2- psi outlet pressure to maximize the throughput and to provide sufficient operating pressure to all connected appliances. If additional appliances are added, the throughput could be reduced and thus under supply all of the downstream appliances resulting in under-firing which can cause safety issues such as incomplete combustion and carbon monoxide production.

Related Item

• PI-41

Submitter Information Verification

Submitter Full Name: Theodore Lemoff
Organization: TLemoff Engineering
Affiliation: Omega Flex
Street Address:
City:
State:
Zip:

Submittal Date: Tue Mar 18 13:40:29 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-31-NFPA 54-2025

Statement: The change is to correlate the regulator pressure drop with its corresponding natural gas table (6.2.1(p)) regulator pressure drop as the operating conditions are the same in terms of sizing.

Public Comment No. 7-NFPA 54-2025 [Global Input]

Revise Table 6.2.1 (r), Note (1) to read:

(1) This table does not include effect of pressure drop across the line regulator. Where regulator loss exceeds ~~¾ psi~~ ½ psi, do not use this table. Consult with regulator manufacturer for pressure drops and capacity factors. Pressure drops across a regulator may vary with flow rate.

Statement of Problem and Substantiation for Public Comment

The current Note is incorrect and could lead to systems that do not deliver the required minimum inlet pressure to appliances. The table is for systems with an inlet pressure of 2 psi and a pressure drop of 1.0 psi in the piping. As the appliance requires ½ psi, only ½ psi is left for pressure drop across the regulator. As the table note calls for consulting the regulator manufacturer where the pressure drop exceeds ¾ psi it is allowing the system designed to provide only ¼ psi at the appliance inlet. This can result in under-firing which can cause safety issues such as incomplete combustion and carbon monoxide production.
This revision will make the Note identical to that in Table 6.2.1 (s).

Related Item

• PI-41

Submitter Information Verification

Submitter Full Name: Theodore Lemoff
Organization: TLemoff Engineering
Affiliation: Omega Flex
Street Address:
City:
State:
Zip:

Submittal Date: Wed Mar 19 11:29:23 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-30-NFPA 54-2025
Statement: The change is to correlate the regulator pressure drop with its corresponding propane table (6.3.1(i)) regulator pressure drop as the operating conditions are the same in terms of sizing.

Public Comment No. 52-NFPA 54-2025 [Section No. 1.4.1]

1.4.1

The provisions of this code shall not be intended to prevent the use of any material, appliance, equipment, method of construction, system, or installation procedure, provided that any such alternative ~~is in accordance with the following:It is equivalent or superior to that prescribed in this code in terms of~~ meets the intent of this code, is acceptable to the authority having jurisdiction (AHJ), and is equivalent in quality, strength, ~~fire resistance~~ effectiveness , durability, and safety as applicable

- ~~It meets the intent of this code~~
- ~~It is approved for the intended purpose by the AHJ~~

Statement of Problem and Substantiation for Public Comment

This section is reworded to provide clear charging statements to the authority having jurisdiction (AHJ) and clean up the text for user readability. It is necessary to add “systems” because equivalency/alternative provisions cover new systems in addition to new materials, appliances, equipment, methods of construction, and installation procedures.

The relocation of the Section 1.4.1(2) text to the first sentence of the section provides clear direction to the AHJ that the primary purpose of this paragraph is to ensure equivalency/alternatives meet the intent of NFPA 54.

Relocating and rewording Section 1.4.1(3) text clarifies the AHJ’s authority for acceptance of the equivalent/alternatives prior to listing the criteria the AHJ will use to determine the equivalency of new materials, appliances, equipment, methods of construction, systems, and installation procedures.

Rewording Section 1.4.1(1) text clarifies that equivalents/alternatives shall be “equivalent” in accordance with the reference document Merriam-Webster's Collegiate Dictionary, 11th edition. Merriam-Webster's Collegiate Dictionary, 11th edition, defines equivalent as “equal in force, amount, or value” or "corresponding or virtually identical, especially in effect or function.” The word superior does not belong since equivalents cannot be based on superior. The text “or superior to that prescribed in this code in terms of” must be removed.

“Effectiveness” is added to ensure the equivalents/alternatives are successful in producing the desired result, in accordance with the reference document Merriam-Webster's Collegiate Dictionary, 11th edition, as the existing NFPA 54 materials, appliances, equipment, methods of construction, systems, and installation procedures.

“Fire resistance” is removed because fire resistance and fire safety for products are determined by the Fire Code(s) and Building Code, not the fuel gas code provisions. The AHJ enforcing the Fuel Gas Code is not responsible for determining fire resistance; thus, the statement does not belong in the listed items for evaluation.

Sections 1.4.1(2) and 1.4.1(3) were relocated to other sections of the text and are redundant, so they should be removed.

Related Item

• FR-27

Submitter Information Verification

Submitter Full Name: Misty Guard
Organization: Regulosity LLC
Affiliation: Ferguson Enterprises LLC
Street Address:
City:
State:
Zip:

Submittal Date: Tue Jun 03 13:44:12 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action:	Rejected but see related SR
Resolution:	SR-15-NFPA 54-2025
Statement:	The text of the boilerplate is moving back towards the language recommended in the Manual of Style in order to maintain consistency between the language found in other NFPA Codes and Standards.

Public Comment No. 54-NFPA 54-2025 [Section No. 1.4.1]

1.4.1

The provisions of this code shall not be intended to prevent the use of any material, appliance, equipment, method of construction, system, or installation procedure, provided that any such alternative is in accordance with the following:

(1) It is equivalent ~~or superior to that prescribed~~ in ~~this code in terms of~~ quality, strength, ~~fire resistance~~ effectiveness ,~~durability~~ durability , and safety as applicable

(2) It meets the intent of this code

(3) It is ~~approved for the intended purpose by the~~ acceptable to the AHJ

Statement of Problem and Substantiation for Public Comment

Add “systems” to align with the other US building and safety codes for purposes of equivalency approvals, also known as alternative methods approvals.

Section 1.4 is titled “equivalency” to clarify that equivalent materials need to meet the same level of safety, performance, and product features as those materials/systems in NFPA 54. Therefore, “or superior to that prescribed in this code in terms of” must be removed because it implies that the materials/systems can be required to be held to unknown, unspecified safety, performance, and product features than the existing materials/systems in NFPA 54. This creates a situation where manufacturers can claim that their product is “superior to those prescribed in this code” and obtain an equivalency AHJ acceptance. “Superior to” is a marketing differentiator used by manufacturers, not a code equivalent issue.

“Effectiveness” is added to ensure the new materials/systems produce the same effect, which is important in ensuring that manufactured products are effective in the same situations as those materials/systems in NFPA 54.

“Fire resistance” is removed because manufacturers rely on the fire and building code requirements, not the fuel gas code, to determine the appropriate testing requirements for fire resistance

Related Item

• FR-27

Submitter Information Verification

Submitter Full Name: Brian Williams
Organization: Ferguson Enterprises
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 03 14:58:17 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-15-NFPA 54-2025

Statement: The text of the boilerplate is moving back towards the language recommended in the Manual of Style in order to maintain consistency between the language found in other NFPA Codes and

Standards.

Public Comment No. 53-NFPA 54-2025 [Section No. 1.4.2]

1.4.2

~~Technical documentation satisfactory to the AHJ~~ Supporting technical documentation that demonstrates equivalency shall be submitted to ~~demonstrate equivalency~~ the AHJ.

Statement of Problem and Substantiation for Public Comment

"Satisfactory" is removed because it is not enforceable code language, which creates a liability issue for AHJs and inconsistency in approvals.

Related Item

• FR-27

Submitter Information Verification

Submitter Full Name: Misty Guard
Organization: Regulosity LLC
Affiliation: Ferguson Enterprises LLC
Street Address:
City:
State:
Zip:

Submittal Date: Tue Jun 03 13:49:54 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-15-NFPA 54-2025

Statement: The text of the boilerplate is moving back towards the language recommended in the Manual of Style in order to maintain consistency between the language found in other NFPA Codes and Standards.

Public Comment No. 55-NFPA 54-2025 [Section No. 1.4.2]

1.4.2

~~Technical documentation satisfactory to the AHJ~~ Supporting technical documentation that demonstrates equivalency shall be submitted to ~~demonstrate equivalency~~ the AHJ.

Statement of Problem and Substantiation for Public Comment

This section refers to the supporting technical documentation that the AHJ will use to determine the equivalency of the new materials/systems to existing NFPA 54 materials/systems. "Satisfactory" is removed because the AHJ is required to determine equivalency and is not charged with determining that new materials/systems are "satisfactory." Additionally, the word "satisfactory" is not enforceable text.

Related Item

• FR-27

Submitter Information Verification

Submitter Full Name: Brian Williams
Organization: Ferguson Enterprises
Street Address:
City:
State:
Zip:

Submittal Date: Tue Jun 03 15:12:13 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-15-NFPA 54-2025

Statement: The text of the boilerplate is moving back towards the language recommended in the Manual of Style in order to maintain consistency between the language found in other NFPA Codes and Standards.

Public Comment No. 35-NFPA 54-2025 [Section No. 3.3.80]

3.3.80 Qualified Agency.

Any individual, firm, corporation, or company that either in person or through a representative is engaged in and that is responsible for: (1) the design, installation, testing,~~- removal, or replacement~~ replacement of gas piping or termination of service or (2) the connection, installation, testing, repair, or servicing of appliances and equipment; experienced in such work; familiar with all precautions required; and compliant with all the requirements of the authority having jurisdiction.

Statement of Problem and Substantiation for Public Comment

Removal of gas piping that is no longer in service does not require a qualified agency. This would seek to create an obligation and burden for consumers related to piping that may no longer be in gas service. The at risk operation consists of terminating service to gas piping. Once pipe is properly purged, disconnected, plugged, or capped removal of former gas pipe is not an action requiring a qualified agencies participation.

Related Item

• FR 34

Submitter Information Verification

Submitter Full Name: Christopher Wagner
Organization: National Propane Gas Associati
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 28 15:42:50 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-14-NFPA 54-2025

Statement: The annex material is clarifying that removal of piping that is properly purged in accordance with this code does not require a qualified agency as defined by this code. There was some interpretation that the purged piping had to be removed immediately post purging under the supervision of the qualified agency, and once it has been purged there can be other things done to that pipe.

Public Comment No. 8-NFPA 54-2025 [Section No. 3.3.91.6]

3.3.91.6 Piping System.

All pipe, tubing, valves, and fittings from the point of delivery to the ~~outlets of the appliance~~ inlet of appliance shutoff valves.

Statement of Problem and Substantiation for Public Comment

The intent of defining the piping system is to establish the parameters and scope of the term. When considering this definition in the intent of a leak check following an interruption of service appliance service valves can be in the open or closed position depending on the condition and status of an appliance. Based on the current wording it could be implied that a service valve that is closed with an installed cap or plug, closed due to a condition within the appliance or a determination to stop utilizing an appliance would now require that the valve be reopened during a leak check potentially resulting in an unsafe condition. The key element of a leak check is to test to the appliance service valve and include the pressurized portion of the valve in the test.

Related Item

• 49

Submitter Information Verification

Submitter Full Name: Christopher Wagner
Organization: National Propane Gas Associati
Street Address:
City:
State:
Zip:
Submittal Date: Thu Mar 27 16:21:58 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-18-NFPA 54-2025

Statement: Removal of the term outlet removes the specificity as it relates to leak and pressure tests and it removes the positioning of the valve as it relates to those tests. Some AHJs were requiring the valves be opened to leak or pressure test the systems and this was not the intent.

Public Comment No. 10-NFPA 54-2025 [Section No. 4.1]

4.1 Qualified Agency.

The following shall be performed only by a qualified agency:

(1) The design, installation, testing, purging, and replacement of gas piping, appliances, equipment, and accessories

(2) The repair and servicing of appliances and equipment

(3) The ~~removal~~ isolation and removal of ~~unpurged~~ gas piping that is in service.

Statement of Problem and Substantiation for Public Comment

The term "unpurged" implies that qualified agencies would be authorized to remove piping that still contained gas. One of the other problems the new language resolves is that often times isolation is not done correctly. OSHA identifies 3 different methods for achieving a proper permanent isolation where work can be done downstream, (blinds, double block and bleed and or disconnection misalignment and capping). Isolation is important and if piping is taken out of service it cannot just be closing a valve and leaving the line not sealed or plugged. Proper isolation is more likely to be achieved with a qualified agency.

Related Item

• Fr No. 1

Submitter Information Verification

Submitter Full Name: John Puskar

Organization: Prescient Technical Services L

Street Address:

City:

State:

Zip:

Submittal Date: Wed Apr 16 06:45:34 EDT 2025

Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: Isolation happens from a customer standpoint all the time for maintenance or other related activities, and customer action to turn off gas to an appliance prior to a qualified agency acting would be out of compliance with the code. It is also unclear if the term isolation means to take the piping out of service permanently or for some other time period.

Public Comment No. 11-NFPA 54-2025 [Section No. 4.2.1]

4.2.1 Notification of Interrupted Service.

When the gas supply is to be turned off, the qualified agency shall ~~notify~~ be responsible for the following:

a. Notify all affected users of the proposed outage, including an estimate of when it will start and its expected duration .

b. Where two or more users are served from the same supply system, precautions shall be exercised to ensure that service only to the proper user(s) is turned off.

Exception: In cases of emergency, affected users shall be notified as soon as possible of the actions taken by the qualified agency.

Statement of Problem and Substantiation for Public Comment

The proposed language attempts to accomplish the following:
a. Comply with manual of style to break apart multiple requirements.
b. Provides for information about the outage that users would expect.
c. Recognizes that these circumstances often need to address multiple users and not a single user.

Related Item

• FR. No. 2

Submitter Information Verification

Submitter Full Name: John Puskar
Organization: Prescient Technical Services L
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 16 06:57:56 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: The proposed language seeks to place unreasonable obligations on the qualified agency related to duration and intended time of interruption. The interruption could be from circumstances outside the scope of the the qualified agency's control. Further it seeks to place an obligation of advanced notice of an intent to interrupt, not post interruption, and that not possible in emergency circumstances.

Public Comment No. 14-NFPA 54-2025 [Section No. 4.6.1]

4.6.1

Hydrogen added to natural gas by blending that yields greater than 5 percent hydrogen by volume shall be recognized by this code as a hydrogen admixture. Natural gas enriched with more than 5% hydrogen by volume is not the same as “natural gas” when determining compatibility with fuel burning appliances.

Statement of Problem and Substantiation for Public Comment

The proposed changes imply that supplying up to 20% hydrogen enriched natural gas to appliances certified for use with natural gas is permissible and safe. The proposal adds clarity that appliances certified for use with natural gas are not necessarily suitable for use with concentrations of hydrogen greater than 5%.

Related Item

• FR-14

Submitter Information Verification

Submitter Full Name: Jeff Kleiss
Organization: A.O. Smith/Lochinvar
Affiliation: AHRI
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 29 16:07:21 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: The proposed language is not written in mandatory language and is more suited as annex material. This statement simply defines what an admixture is not where it can be used. The proposed language does not add a new requirement and instead restates the inverse of the current statement.

Public Comment No. 37-NFPA 54-2025 [Section No. 5.5.4.2]

5.5.4.2* Regulator Vent Piping.

Plastic pipe and fittings used to connect regulator vents to remote vent terminations shall be PVC conforming to UL 651, *Schedule 40 and 80 Rigid PVC Conduit and Fittings*. ~~PVC vent piping shall not be installed indoors.~~

Statement of Problem and Substantiation for Public Comment

Since the 2001 edition, NFPA 58 “LP-Gas Code” has allowed the use of PVC conforming to ANSI/UL 651 to be exposed to the indoors where used to vent second stage regulators that are installed indoors.

1. In a large structure involved in fire, regulator vent piping may be exposed to fire while the regulator itself may not be. It is important to note that under most circumstances, regulator vent piping does not contain gas—it only carries gas when the regulator is in vent discharge mode. If the regulator itself is not involved in a fire, there is no reasonable expectation to believe that it will vent and therefore involvement of the vent piping alone in a fire does not pose any additional safety risk.

2. Using black iron or galvanized pipe or larger diameter copper tubing could impose excessive stresses on the regulator housing. When regulators had 1/4- inch vent openings, small diameter tubing used to extend vents imposed minimal stress on the regulator. However, regulators now install 1/2-, 3/4-, and 1-inch vent openings which lead to much greater stresses on the housing.

3. UL 651 PVC conduit is tested for limited resistance to fire. However, LP-gas second stage and line pressure regulators, which are both approved for use inside buildings, are not required to be fire resistant. Regulators contain components which have low melting points. Plastic regulator vent caps and adjusting screws will melt at temperatures as low as 225°F, and the elastomer materials of regulator diaphragms and seat discs will fail at approximately 400°F. The melting point of PVC gas pipe ranges from 212°F to 500°F. Therefore, there is no enhancement of safety in mandating fire-resistant vent piping, when the regulator assembly itself is not tested for fire resistance.

Related Item

• 115

Submitter Information Verification

Submitter Full Name: Christopher Wagner
Organization: National Propane Gas Associati
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 16:05:08 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: There is concern with allowing PVC regulator vent piping indoors as it does not have the same integrity as metal piping in terms of durability. The concern additionally is that a fire can damage the vent piping which would impede its normal operation (e.g. diaphragm breathing) which could then cause an unsafe condition.

Public Comment No. 4-NFPA 54-2025 [Section No. 5.5.8]

5.5.8 Plastic Piping Joints and Fittings.

Plastic pipe, tubing, and fittings shall be joined in accordance with the manufacturers' instructions ~~. The following shall be observed when making such joints:~~ and the following.

(1) The joint shall be ~~designed and installed~~ designed so that the longitudinal pullout resistance of the joint will be at least equal to the tensile strength of the plastic piping material.

(2) ~~Heat fusion joints shall be made in accordance with qualified procedures that have been established and proven by test to produce gastight joints at least as strong as the pipe or tubing being joined. Joints shall be made with the joining method recommended by the pipe manufacturer. Polyethylene heat fusion fittings shall be marked "ASTM D2513." Polyamide heat fusion fittings shall be marked "ASTM F2945."~~

(3) ~~Where compression-type mechanical joints are used, the gasket material in the fitting shall be compatible with the plastic piping and with the gas distributed by the system. An internal tubular rigid stiffener shall be used in conjunction with the fitting. The stiffener shall be flush with the end of the pipe or tubing and shall extend at least to the outside end of the compression fitting when installed. The stiffener shall be free of rough or sharp edges and shall not be a force fit in the plastic. Split tubular stiffeners shall not be used.~~

(4) Plastic piping joints and fittings for use in LP-Gas piping systems shall be in accordance with NFPA 58.

Statement of Problem and Substantiation for Public Comment

In PI 24 I proposed relocating 5.5.7 to Chapter7 because the requirements were installation requirements. The committee rejected the PI stating that "Moving these pipe and fitting requirements to requirements related to bending requirements will cause the requirements to be lost. They are more appropriate in chapter 5 as they are joint and fitting specifications".
In fact, 5.5.7 includes both equipment and installation requirements, and it is proposed to remove the installation requirements and relocate them to a new 7.5.2 Installation of Plastic Pipe in a separate comment.

Related Item

• PI-24

Submitter Information Verification

Submitter Full Name: Theodore Lemoff
Organization: TLemoff Engineering
Affiliation: None
Street Address:
City:
State:
Zip:
Submittal Date: Mon Mar 17 10:31:28 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-32-NFPA 54-2025
Statement: Not all the requirements in current 5.5.8 are design requirements and the pieces that are installation related are moving to chapter 7 on installation.

Public Comment No. 18-NFPA 54-2025 [Section No. 5.8.8.1]

5.8.8.1

The discharge stacks, vents, or outlet parts of all pressure- relieving and pressure- limiting devices shall be located so that gas is safely discharged ~~to the~~ outdoors.

Discharge stacks, vents, or outlets shall be installed in accordance with the following:

1. The terminus of discharge stacks or vents shall be designed to prevent the entry of water, insects, or other foreign material that could cause blockage.

2. An independent vent pipe to the outdoors, sized in accordance with the manufacturers instructions, shall be provided where the location is such that a discharge of fuel gas from the device will cause a hazard.

3. Independent vents from multiple relief valves shall not be required where the vents are connected to a common manifold designed in accordance with engineering methods to minimize backpressure in the event of a release.

4. Materials for vent piping shall be in accordance with section 5.5.

5. Vent piping shall be installed to minimize static loads and bending moments placed on relief valves.

6. Vents shall terminate from a distance approved by the manufacturer, demonstrated to be adequate from the manufacturer's installation instructions or documentation from engineering methods.

7. At locations where a vent termination could be submerged during floods or snow accumulations, the vent terminus shall be located above the height of the expected 500-year event floodwaters or snow.

8. Vent piping from pressure relief valves shall not be connected to piping or common manifolds with bleed lines or vents from diaphgram regulators.

Statement of Problem and Substantiation for Public Comment

This section is not consistent with section 5.14 regarding diaphragm-related vents. There are many more protections associated with those that make sense to be associated with relief valve vents. This was suggested in my initial PI, and the committee was open to me resubmitting these separately.

Related Item

• PI 95

Submitter Information Verification

Submitter Full Name: John Puskar
Organization: Prescient Technical Services L
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 09 08:05:51 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: The proposed language would leave a gap where industrial coverage would apply vs. residential application. There is no data to substantiate a different distance and each discharge is site specific as to what constitutes a safe discharge. Engineering methods would be too subjective and rely on the assumptions made by the engineer or designer for every instance in which a discharge could occur.

Public Comment No. 19-NFPA 54-2025 [Section No. 5.13.1]

5.13.1 Design.

Piping systems shall be designed to prevent failure from ~~thermal~~ the following:

a. Thermal expansion or contraction.

b. Vibration transmitted from connected equipment.

Statement of Problem and Substantiation for Public Comment

This item speaks to expansion and flexibility, but the requirement only addresses flexibility. The added text provides for additional protection related to flexibility.

Related Item

• PI 63

Submitter Information Verification

Submitter Full Name: John Puskar
Organization: Prescient Technical Services L
Street Address:
City:
State:
Zip:
Submittal Date: Sun May 11 14:07:34 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: Consideration for vibration of the piping system design is not a general concern for system designers as the appliance vibration should be addressed in the appliance manufacturer's instruction Most appliances in non-industrial settings have no vibration and would be excessive to consider under a generally applicable section.

Public Comment No. 20-NFPA 54-2025 [Section No. 5.13.2]

~~**5.13.2** – Special Local Conditions.~~

~~Where local conditions include earthquake, tornado, unstable ground, or flood hazards, special consideration shall be given to increased strength and flexibility of piping supports and connections.~~

Statement of Problem and Substantiation for Public Comment

This section is not enforceable. This was previously presented and the committee did not provide a counter to my technical argument. The following is a supplemental technical argument to support my proposed removal and I would expect the committee to counter it with something technical in return. The following are in my opinion technical support reasons for my proposal:
a. If the piping is in an earthquake zone then local requirements would spell out the requirements for that hazard in detail.
b. I know of no quantifiable published information that give objective criteria for establishing what tornado hazards or unstable ground hazards exist similar to well established published seismic zone maps.
c. There are well established criteria for flooding that comes in the form of 100 year, 500 year, etc. flood levels. These are used for many stormwater designs. The language that exists today doe not reference a specific flood level or criteria.
Even if one wanted to satisfy this item what would "special consideration" mean?

Related Item

• PI 63

Submitter Information Verification

Submitter Full Name: John Puskar
Organization: Prescient Technical Services L
Street Address:
City:
State:
Zip:
Submittal Date: Sun May 11 14:11:44 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: This requirement is necessary to cover often overlooked hazards and special considerations are necessary as prescriptive requirements would not address all of the hazards. Typically the AHJ local to the hazardous condition will have knowledge of what needs to be specially considered.

Public Comment No. 12-NFPA 54-2025 [Section No. 7.2.5]

7.2.5* Prohibited Locations.

Gas piping inside any building shall not be installed in or through ~~a clothes chute, chimney or gas vent, dumbwaiter, elevator shaft, or air duct.~~ any location where it will be subject to the following:

a. Damage from the ambient operational environment.

b. The ambient operational environment provides a confined path to communicate gas leakage to other parts of the building or equipment.

Statement of Problem and Substantiation for Public Comment

This comment attempts to address manual of style issues with this text. This text contains a list that is not complete. It now contains the general concepts that made for the listed items.

Related Item

• FR. No. 15

Submitter Information Verification

Submitter Full Name: John Puskar
Organization: Prescient Technical Services L
Street Address:
City:
State:
Zip:

Submittal Date: Wed Apr 16 07:16:00 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: It is unclear what the term "ambient operational environment" entails and can lead to overly subjective enforcement of the term. The list of terms is currently inclusive of all the areas that should not have gas piping in them. Each of the items in the list has different reason for its inclusion in the requirement, such as accessibility and hazard to the building from gas migration.

Public Comment No. 5-NFPA 54-2025 [New Section after 7.5.2]

7.5.2 Installation of Plastic Pipe.

7.5.2.1 Plastic pipe, tubing, and fittings shall be joined in accordance with the manufacturers' instructions.

7.5.2.2 Heat fusion joints shall be made in accordance with procedures that have been established and proven by test to produce gastight joints at least as strong as the pipe or tubing being joined.

7.5.2.3 Heat fusion joints shall be made with the joining method recommended by the pipe manufacturer.

7.5.2.4 Polyethylene heat fusion fittings shall be marked "ASTM D2513" and polyamide heat fusion fittings shall be marked "ASTM F2945."

7.2.5.5 Where compression-type mechanical joints are used, the gasket material in the fitting shall be compatible with the plastic piping and with the gas distributed by the system.

5.2.5.6 Where compression-type stiffeners are used, an internal tubular rigid stiffener shall be used in conjunction with the fitting.

(a) The stiffener shall be flush with the end of the pipe or tubing and shall extend at least to the outside end of the compression fitting when installed.

(b) The stiffener shall be free of rough or sharp edges and shall not be a force fit in the plastic.

(c) Split tubular stiffeners shall not be used.

7.2.5.6 Plastic piping joints and fittings for use in LP-Gas piping systems shall be installed in accordance with NFPA 58 .

Statement of Problem and Substantiation for Public Comment

See statement in PC-4. This PC creates a new requirement containing the installation requirements currently in 5.5.7.

Related Item

• PI-24 • PC-4

Submitter Information Verification

Submitter Full Name: Theodore Lemoff
Organization: TLemoff Engineering
Affiliation: None
Street Address:
City:
State:
Zip:

Submittal Date: Mon Mar 17 10:40:45 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-32-NFPA 54-2025

Statement: Not all the requirements in current 5.5.8 are design requirements and the pieces that are installation related are moving to chapter 7 on installation.

Public Comment No. 2-NFPA 54-2025 [New Section after 7.6.1]

TITLE OF NEW CONTENT

7.6.1 Move 5.5.8, Plastic Pipe Joints and Fittings here. Rename to "Installation of Plastic Pipe and Fittings".

Statement of Problem and Substantiation for Public Comment

The committee rejected PI-24 stating that moving the installation requirements for plastic piping to Chapter 7 (Gas Piping Installation) would result in the requirements being lost. This concern is understandable; however, I have the concern that by keeping these installation requirements in Chapter 5 they may not be found. As there are no requirements for the installation of metallic piping as a discrete section these requirements are somewhat of an orphan.
I believe that these installation requirements should be in Chapter 7 rather than Chapter 5.

Related Item

• 24

Submitter Information Verification

Submitter Full Name: Theodore Lemoff
Organization: TLemoff Engineering
Affiliation: None
Street Address:
City:
State:
Zip:

Submittal Date: Thu Mar 13 10:35:08 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-32-NFPA 54-2025
Statement: Not all the requirements in current 5.5.8 are design requirements and the pieces that are installation related are moving to chapter 7 on installation.

Public Comment No. 21-NFPA 54-2025 [Section No. 7.8.1.2]

7.8.1.2

Outlets shall not be located behind doors where the door swing could damage the gas outlet or its connection .

Statement of Problem and Substantiation for Public Comment

The proposed language now complies with what the committee stated that the original intent of this item was. The proposed language now makes the intent of this item very clear.

Related Item

• PI 69

Submitter Information Verification

Submitter Full Name: John Puskar
Organization: Prescient Technical Services L
Street Address:
City:
State:
Zip:

Submittal Date: Sun May 11 14:31:19 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: It is unclear if installed protections would limit the door swing or be an equivalent option to the intent of the requirement. Damaging the outlet and the connection is not the only concern as in the event of an emergency the door could block access to the outlet. Additionally temporary measures or other common door swing limiters could be defeated resulting in damage to the outlet.

Public Comment No. 22-NFPA 54-2025 [Section No. 7.8.1.3]

~~7.8.1.3~~ –

~~Outlets shall be located far enough from floors, walls, patios, slabs, and ceilings to permit the use of wrenches without straining, bending, or damaging the piping.~~

Statement of Problem and Substantiation for Public Comment

The committee in my opinion did not provide a technical basis to reject my PI. The requirement today is in conflict with the next two requirements that follow it. These two requirements provide exact specific minimum lengths of pipe that can protrude. If these already provide an exact quantifiable specific minimum length what then is the point of of the previous 7.7.1.3? What could it then possible be referring to?

Related Item

• PI 70

Submitter Information Verification

Submitter Full Name: John Puskar
Organization: Prescient Technical Services L
Street Address:
City:
State:
Zip:

Submittal Date: Sun May 11 14:38:11 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-8-NFPA 54-2025

Statement: The list is not all inclusive of the surfaces that could impede wrench usage and the intent is for there to be enough room to use wrenches on the piping without bending, straining, or damaging the piping.

Public Comment No. 34-NFPA 54-2025 [Section No. 8.1.1.1]

8.1.1.1

Prior to acceptance and initial ~~operation or after repairs,~~ operation all piping installations shall be visually inspected and pressure tested to determine that the materials, design, fabrication, and installation practices comply with the requirements of this code.

Statement of Problem and Substantiation for Public Comment

As revised during first revision, this change could be construed to obligate a new pressure test (1.5 times standard operating pressure not less than 2 psi) to be done at anytime a repair is made, even one so inconsequential as tightening a fitting. I do not believe that this was the intention of the change. If it was, this is overly burdensome and unreasonable. If this is intended to address gas systems being returned to service after a significant fire or incident per 4.7 then a new section should be created for this specific purpose or more clarifying language should be added to specifically identify the charging event. ANSI Z223.1 Technical Committee did not pass this proposed change resulting in a conflict within the existing standards. Existing 8.1.1.3 and 8.1.1.4 already cover expectations following repairs making this redundant and unecessarry.

Related Item

• 59

Submitter Information Verification

Submitter Full Name: Christopher Wagner
Organization: National Propane Gas Associati
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 15:30:46 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-9-NFPA 54-2025
Statement: After repairs is redundant with the requirements in 8.1.1.3 and 8.1.14 which already cover repairs.

Public Comment No. 36-NFPA 54-2025 [Section No. 8.2.3]

8.2.3* Leak Check.

Immediately after the gas is turned on into a new system or into a system that has been initially restored after an interruption of service, the portion of the piping system ~~shall~~ being restored shall be checked for leakage. Where leakage is indicated, the gas supply to the section of the piping system, where a leak was identified, shall be shut off until the necessary repairs have been made.

Statement of Problem and Substantiation for Public Comment

8.2.3 as written does not lead to a leak test of the “Piping System” only the "in service" portion of the system. This creates a non-compliance issue if a portion of the system is isolated within the premises with an open, uncapped, unplugged line or valve with no appliance connected. Additionally, the "Piping System" as defined in 3.3.95.6 cannot be confirmed to have been leak tested, again, only the "in service" portion will have been tested. If a leak is identified within a portion of an existing system and that portion of the system can be effectively isolated utilizing an in line valve, or otherwise protected by tagging or locking there is no justifiable reason to cease all gas service to the piping system. Isolation of segments not in use is a common occurrence and existing code has been utilized to infer that it is all or nothing, which has never been the intent.

Related Item

• 49

Submitter Information Verification

Submitter Full Name: Christopher Wagner
Organization: National Propane Gas Associati
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 28 15:52:39 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-10-NFPA 54-2025
Statement: The annex text provides further information on how leak checks are typically conducted in the field post repairs.

Public Comment No. 3-NFPA 54-2025 [Section No. 9.6.8.2]

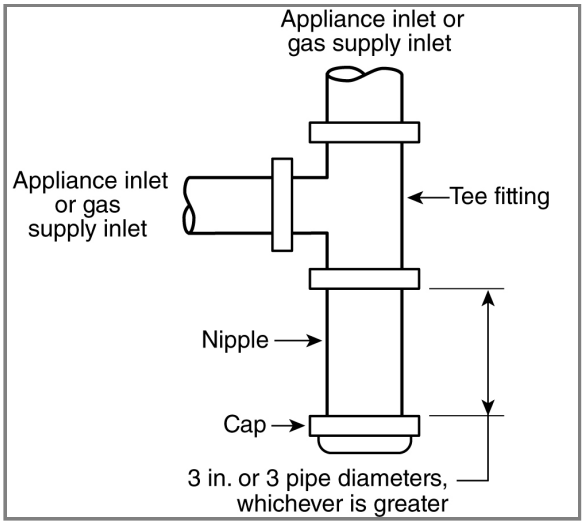
9.6.8.2

~~The sediment trap shall~~ Where an appliance is served by piping 2 in. and larger a sediment trap shall be either a tee fitting with a capped nipple in the bottom outlet, as illustrated in Figure 9.6.8.2, or another device recognized as an effective sediment trap.

9.6.8.3 Appliances served by piping smaller than 2 in. shall not be required to have a sediment trap.

Revise Figure 9.6.8.2 to that published in the 2024 edition of the Code, with the text to the right of the nipple to read: 3 inches or 3 pipe diameters, whichever is greater.

Figure 9.6.8.2 Method of Installing a Tee Fitting Sediment Trap.



Statement of Problem and Substantiation for Public Comment

The committee rejected PI-89 which proposed eliminating the requirement for sediment traps on all appliances served by piping 2" and smaller. The reason given was "It is possible to have debris and other material in the piping upon start up or where gas and piping conditions create copper sulfide. In addition, this is a recognized and accepted safety practice to prevent debris from impacting appliances during their lifetime."
The committee also revised the sediment trap requirements to allow either downward flow into the sediment trap, or horizontal flow into the sediment trap. This action ignores basic principles of physics and repeals the law of gravity. As currently require by the code, gas flows downward into the sediment trap and the flow is turned 90 degrees. Any particles, or sediment, in the gas are affected by momentum and gravity. In the current style sediment trap a particle in the gas is pulled down into the capped leg by both gravity and momentum. By allowing gas flow into the side of the tee, and then upward the contribution of momentum to gravity is lost. This style of sediment trap will always be less effective.
There are many code users who have inspected numerous sediment traps by unscrewing the nipple with reports that no sediment is present. This can be inferred to mean that either the fuel gas being supplied today has little to no sediment, or what little sediment is present is passing into the appliance with no negative effect. Just because we have always had sediment traps does not mean that they are needed.

Related Item

• 89

Submitter Information Verification

Submitter Full Name: Theodore Lemoff
Organization: TLemoff Engineering
Affiliation: None
Street Address:

City:
State:
Zip:
Submittal Date: Thu Mar 13 14:26:03 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected

Resolution: Sediment traps on all gas piping are necessary to prevent debris and other material from damaging the appliance and there is no technical justification to remove them for smaller than 2" piping. The sediment trap works when gas is flowing from either direction (vertically or horizontally) as gravity still can pull the debris down once it breaks the momentum in many cases.

Public Comment No. 1-NFPA 54-2025 [Section No. 12.5.2]

12.5.2 Plastic Piping.

Where plastic piping is used

~~to vent an appliance, the appliance shall be listed~~
to vent an appliance, the following shall apply:

(1)
Appliance Listing and Instructions: The appliance shall be listed for use with

~~such~~

(1)
plastic venting materials , and the

~~appliance manufacturer's~~

(1)
manufacturer's installation instructions

~~shall identify~~

(1)
shall specify the

~~specific~~

(1)
permitted plastic piping material (s) .

(2)
Venting System Standards: The plastic

~~pipe venting materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~

(1)
venting system, including piping and fittings, shall be listed and labeled in accordance with

~~UL 1738~~

(1)
UL 1738 , Venting Systems for Gas-Burning Appliances, Categories II, III, and

~~IV~~

(1)
IV

(2)
Temperature Compatibility: The temperature rating of the selected plastic venting material must be greater than or equal to the maximum flue gas temperature of the appliance, as specified by the appliance manufacturer .

Additional Proposed Changes

File Name	Description	Approved
ASTM_F441.png		
ASTM_D1785.png	ASTM 1785	

Statement of Problem and Substantiation for Public Comment

This change requires vent material to be rated for its intended use.

Current Code Language:

“Plastic pipe venting materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be listed/labeled in accordance with UL 1738.”

Problem #1
Appliance manufacturers often reference standards such as ASTM D1785, ASTM D2665, and ASTM F441, which do not address the higher temperatures and combustion byproducts typical of flue-gas venting. As a result, PVC/CPVC piping that is not tested, listed, or manufactured for the intended use of flue-gas venting may be used simply because the appliance installation manual cites these unrelated plumbing standards.

Problem #2
Even when a vent material meets UL 1738 the product’s temperature rating may be below the appliance’s maximum operating or cutoff temperature, creating a mismatch that poses a health and safety risk of premature failure.

How the Proposed Change Resolves These Issues--

*Closes the “Plumbing-Standard” Gap: By requiring that plastic piping be listed and labeled for flue-gas venting (rather than relying on plumbing listings), the revised text ensures that only products intended for combustion-gas conditions are used.
*Ensures Temperature Compatibility: Stating that the “appliance flue-gas does not exceed the safe operating temperature of the venting material” clarifies that even if a pipe is listed, it must also be compatible with the appliance's potential flue-gas temperatures.

In summary, the proposed language ensures plastic vent materials are intended for flue-gas service and adequately matched to appliance operating temperatures, thereby addressing both gaps identified in the current code.

Related Item

• PI 105-NFPA 54-2024

Submitter Information Verification

Submitter Full Name: William Fisher
Organization: FIA Inc
Street Address:
City:
State:
Zip:

Submittal Date: Tue Feb 25 17:46:55 EST 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 33-NFPA 54-2025 [Section No. 12.5.2]

12.5.2 Plastic Piping.

Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation ~~instructions shall identify the specific plastic piping material. The plastic pipe venting materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~ instructions shall be listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV*.

Statement of Problem and Substantiation for Public Comment

UL 1738 should be the only option for venting appliances. Use of uncertified plumbing products is not a safe option. Venting failures result in CO being rel

Related Item

• Public Input No. 105-NFPA 54-2024

Submitter Information Verification

Submitter Full Name: Andrew Marshall
Organization:
Affiliation: City of Bloomington, IL Building Safety
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 09:39:35 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 49-NFPA 54-2025 [Section No. 12.5.2]

12.5.2 Plastic Piping.

Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation instructions shall identify the specific plastic piping material. The plastic pipe venting materials shall be ~~labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~ listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV*.

Statement of Problem and Substantiation for Public Comment

There is some consensus at PPFA that NFPA 54 should consider requirements to utilize the UL standard for the combustion venting products. This proposal is a simplification of a previous proposal submitted by IPEX - Public Input No. 105-NFPA 54-2024 [Sections 12.5.2, 12.5.3, 12.5.4]

This proposal would allow the plastic piping and fittings manufacturers to decide how their products are ultimately used. Many plastic piping ASTM standards indicate in notes that they are not specifically designed or intended for applications outside of typical plumbing air and water systems. Requiring the standard allows the manufacturer to decide - not the appliance manufacturer - which products are suited for the applications.

Related Item

• ublic Input No. 105-NFPA 54-2024 [Sections 12.5.2, 12.5.3, 12.5.4]

Submitter Information Verification

Submitter Full Name: Mike Cudahy
Organization: PPFA (Plastic Pipe and Fittings Association)
Affiliation: PPFA (Plastic Pipe and Fittings Association)
Street Address:
City:
State:
Zip:

Submittal Date: Mon Jun 02 11:49:27 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 29-NFPA 54-2025 [Sections 12.5.2, 12.5.3]

Sections 12.5.2, 12.5.3

12.5.2 Plastic Piping.

Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation instructions shall identify the specific plastic piping material. The plastic pipe venting materials shall be ~~labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~ listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV*.

~~**12.5.3** – Plastic Vent Joints.~~

~~Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Plastic pipe venting materials listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV* , shall be installed in accordance with the vent manufacturer's installation instructions. Where primer is required, it shall be of a contrasting color.~~

Additional Proposed Changes

File Name	Description	Approved
NFPA_54_1738_background.pdf	UL 1738 background	
NFPA_54_1738_background.pdf	NFPA 54 UL 1738 Background	

Statement of Problem and Substantiation for Public Comment

The committee rejected a previous proposal to mandate UL 1738. The reason for the rejection was that the currently used ASTM DWV and Water pipe standards are considered adequate for the application. The fact is that there are failures resulting in injuries and deaths when plumbing materials are used as flue gas venting. The committees comment that there is no data to show that the current products are inadequate is not correct. Many of these CO incidents are not properly investigated and details of the contribution of the vent to the incident is not always clear. In addition, most failures are the subject of litigation and the details are not available to anyone other than the experts and they are bound by confidentiality. Failures are happening and this should not be ignored. Clearly some of these failures could be prevented with a mandated certified vent system. The NCOAA can provide related failure information and its anticipated that they will do so as part of the NFPA process.

Related Item

• Public Input No. 105-NFPA 54-2024”

Submitter Information Verification

Submitter Full Name: Larry Gill
Organization: IPEX USA LLC
Affiliation: IPEX USA LLC
Street Address:
City:
State:
Zip:

Submittal Date: Thu May 22 12:39:02 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 50-NFPA 54-2025 [Sections 12.5.2, 12.5.3]

Sections 12.5.2, 12.5.3

12.5.2 Plastic Piping.

Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation ~~instructions shall identify the specific plastic piping material. The plastic pipe venting materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~ instructions shall be listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV*.

~~**12.5.3** – Plastic Vent Joints.~~

~~Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Plastic pipe venting materials listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV* , shall be installed in accordance with the vent manufacturer's installation instructions. Where primer is required, it shall be of a contrasting color.~~

Statement of Problem and Substantiation for Public Comment

UL 1738 should be the only option for venting appliances. The multiple injuries and fatalities documented by the Consumer Safety Product Commission reveals major deficiencies in appliance manufacturer's testing and approval. In my state alone, 5 fatalities have confirmed to be a result from unlisted PVC used for flue gas venting. In 2024 alone, 1099 people have been injured or killed due to carbon monoxide incidents. I am in full support of any change we can make to lower that number.

Related Item

• Public Input No. 105-NFPA 54-2024

Submitter Information Verification

Submitter Full Name: Richard Brewster II
Organization: SAFEbuilt
Affiliation: Myself
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 02 12:36:15 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 17-NFPA 54-2025 [Sections 12.5.2, 12.5.3]

Sections 12.5.2, 12.5.3

12.5.2 Plastic Piping.

Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation instructions shall identify the specific plastic piping material. The plastic pipe venting ~~materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~ materials shall be listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV*.

~~**12.5.3** – Plastic Vent Joints.~~

~~Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Plastic pipe venting materials listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV* , shall be installed in accordance with the vent manufacturer's installation instructions. Where primer is required, it shall be of a contrasting color.~~

Statement of Problem and Substantiation for Public Comment

UL 1738 should be the only option for venting appliances. Use of uncertified plumbing products is not a safe option. Venting failures result in CO being released into homes and harming people.

Related Item

• Public Input No. 105-NFPA 54-2024

Submitter Information Verification

Submitter Full Name: Sophie McElroy
Organization: IPEX USA LLC
Affiliation: IPEX USA LLC
Street Address:
City:
State:
Zip:

Submittal Date: Mon May 05 13:54:24 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 25-NFPA 54-2025 [Sections 12.5.2, 12.5.3]

Sections 12.5.2, 12.5.3

12.5.2 Plastic Piping.

Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation ~~instructions shall identify the specific plastic piping material. The plastic pipe venting materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~ instructions shall be listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV*.

~~**12.5.3** – Plastic Vent Joints.~~

~~Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Plastic pipe venting materials listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV* , shall be installed in accordance with the vent manufacturer's installation instructions. Where primer is required, it shall be of a contrasting color.~~

Statement of Problem and Substantiation for Public Comment

UL 1738 should be the only option for venting appliances. Use of uncertified plumbing products is not a safe option. Venting failures result in CO being released into homes and harming people.

Related Item

• Public Input No. 105-NFPA 54-2024

Submitter Information Verification

Submitter Full Name: Sophie McElroy
Organization: IPEX USA LLC
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 15 14:06:42 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 30-NFPA 54-2025 [Sections 12.5.2, 12.5.3]

Sections 12.5.2, 12.5.3

12.5.2 Plastic Piping.

Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation instructions shall identify the specific plastic piping material. The plastic pipe venting ~~materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~ materials shall be listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV*.

~~**12.5.3** – Plastic Vent Joints.~~

~~Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Plastic pipe venting materials listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV* , shall be installed in accordance with the vent manufacturer's installation instructions. Where primer is required, it shall be of a contrasting color.~~

Statement of Problem and Substantiation for Public Comment

Currently, NFPA 54 allows the use of non-certified drain, waste, and vent (DWV) piping for flue gas venting (FGV) applications. The misuse of uncertified PVC DWV piping for flue gas venting is a potential health and safety issue since the misuse of unapproved pipes can lead to the release of carbon monoxide (CO) inside buildings, potentially leading to injury or death of occupants if these pipes, fittings, or connections allow leakage.
PPI supports using the right types of pipes for the right applications. Section 12.5.2 should be revised to allow only piping materials which are listed and labeled in accordance with UL 1738. Section 12.5.3 should be deleted because these requirements are covered within UL 1738.

Related Item

• Public Input No. 105-NFPA 54-2024

Submitter Information Verification

Submitter Full Name: Lance MacNevin
Organization: The Plastics Pipe Institute (PPI)
Street Address:
City:
State:
Zip:

Submittal Date: Tue May 27 19:53:44 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 51-NFPA 54-2025 [Sections 12.5.2, 12.5.3]

Sections 12.5.2, 12.5.3

12.5.2 Plastic Piping.

Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation ~~instructions shall identify the specific plastic piping material. The plastic pipe venting materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be~~ instructions shall be listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV*.

~~**12.5.3** – Plastic Vent Joints.~~

~~Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Plastic pipe venting materials listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV* , shall be installed in accordance with the vent manufacturer's installation instructions. Where primer is required, it shall be of a contrasting color.~~

Statement of Problem and Substantiation for Public Comment

UL1738 should be the only option for venting appliances. This addition can and will help by making sure that any plastic venting system will be certified to a standard and not rely only on manufacturer's recommendation. UL 1738 standard tests the whole system to make sure that everything is properly fitting to make sure there are no potential carbon monoxide leakage.

Related Item

• Public input No. 105-NFPA 54-2024

Submitter Information Verification

Submitter Full Name: Joseph Mirsadshanow
Organization: Lubrizol
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 03 10:08:03 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 32-NFPA 54-2025 [Section No. 12.5.3]

~~**12.5.3** – Plastic Vent Joints.~~

~~Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions. Plastic pipe venting materials listed and labeled in accordance with UL 1738, *Venting Systems for Gas-Burning Appliances, Categories II, III, and IV* , shall be installed in accordance with the vent manufacturer's installation instructions. Where primer is required, it shall be of a contrasting color.~~

Statement of Problem and Substantiation for Public Comment

UL 1738 should be the only option for venting appliances. Use of uncertified plumbing products is not a safe option. Venting failures result in CO being released into homes and harming people.

Related Item

- Public Input No. 105-NFPA 54-2024

Submitter Information Verification

Submitter Full Name: Andrew Marshall
Organization:
Affiliation: City of Bloomington, IL Building Safety
Street Address:
City:
State:
Zip:

Submittal Date: Wed May 28 09:36:20 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-12-NFPA 54-2025

Statement: Materials that conform to UL 1738 are listed as a system (piping and fittings), while other drain, waste, and vent materials can be mismatched which affects their tolerances related to proper vent performance. UL 1738 materials are specifically designed for the purposes of venting products of combustion. Drain, waste, and vent materials currently utilized for the purposes of venting have the opportunity to meet UL 1738 or equivalent.

To maintain the listing, the system needs to be installed in accordance with the venting manufacturer's installation instructions, which are submitted as part of the listing criteria and requiring their installation to UL 1738 is redundant.

Public Comment No. 46-NFPA 54-2025 [Section No. 12.11.6]

12.11.6 Joints.

Joints between sections of connector piping and connections to flue collars or draft hood outlets shall be fastened in accordance with one of the following methods:

(1) Sheet metal screws**, rivets, banding or strapping**

(2) Vent connectors of listed vent material assembled and connected to flue collars or draft hood outlets in accordance with the manufacturers' instructions

(3) Other approved means

A.12.6 Securing the vent connector to the flue collar on gas-fired appliances via mechanical means in all cases is reasonable, cost-effective and will serve to protect occupants of structures served by gas-fired appliances from the dangers of noxious and potentially lethal gases resulting from gas-fuel combustion, including by assuring that the vent connector does not become detached from the flue collar or that sections of connector piping do not become detached from one another. So-called "slip-fits" or "friction-fits", on the other hand, should never be used anywhere in the venting system which serves a heating appliance including gas-fired appliances.

Statement of Problem and Substantiation for Public Comment

The Section 211 Committee and Section 31 Committee have revised Code Section 211 and Section 31 to always require that vent connectors be fastened to the flue collar on a heating appliance via mechanical means. See current versions of Section 211 9.7.10 and Section 31 6.5.15. The proposed revision to Section 54 12.11.6 (1) assures that standards for attaching the vent connector to the flue collar on all types of heating appliances are consistent across all applicable NFPA Code Sections, and can be consistently interpreted, applied, enforced and relied upon by all stakeholders. The language proposed to be included in the appendix serves to clarify and better explain the reasons for modifying the standard at Section 54 12.11.6 (1), including by prohibiting use of so-called "slip-fits" or "friction-fits" anywhere in the venting system serving a heating appliance, including gas-fired heating appliances.

Related Item

• No related PI

Submitter Information Verification

Submitter Full Name: Gary Braun
Organization: Braun
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 30 08:55:56 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-13-NFPA 54-2025

Statement: Rivets are an acceptable means of fastening connectors, piping, and connections to flue collars or draft hood, and are an equivalent means to screws. They provide a means of interference fastening rather than friction fitting. The annex material was not added as the section with the changes is clear as to the intent to fasten all of the connectors, piping, and connections to flue collars or draft hood mechanically. Additionally banding and strapping are already considered in items (2) and (3).

Public Comment No. 15-NFPA 54-2025 [Section No. A.4.6]

A.4.6

The distribution of hydrogen admixtures in natural gas in building systems does not change the safety or operability of fuel gas systems where reasonable limits on hydrogen percentages (by volume), such as 20 percent, are used. Pipe system components and sizing methods currently in the code can be used to size hydrogen admixtures up to 20 percent hydrogen by volume with the different natural gas sources already used in developing the sizing methods and based upon current technical justification of admixture compatibility.

Adding hydrogen to a fuel gas affects appliance function, specifically combustion behavior. The primary safety concern of increasing hydrogen percentages is burner “flashback,” where burner flame front retreats into the burner itself (regression), leading to burner failure, failure of the burner system, and potential release of unburned gas in the building. Regression of flame fronts into burners occurs when hydrogen concentrations are increased and gas mixture flame speeds increase proportionally, exceeding the flow rate of the mixed fuel gas/air mixture to the flame within the combustion chamber. Hydrogen’s burning velocity is approximately six times faster than that of methane. A 20 percent maximum threshold for hydrogen admixtures with natural gas represents a reasonable limit to minimize the potential of flashback behavior and associated safety risks of burner failure. This admixture maximum threshold is consistent with compatibility of piping system limit of 20 percent hydrogen.

Appliances that are certified for use with natural gas enriched with more than 5% hydrogen will include indication of the permissible fuel type on the rating label.

Statement of Problem and Substantiation for Public Comment

The proposed changes imply that supplying up to 20% hydrogen enriched natural gas to appliances certified for use with natural gas is permissible and safe. Industry research conducted by CSA do not condone the use of 20% hydrogen with appliances certified for use with natural gas. Nationally recognized testing labs such as UL offer certification of appliances for use with concentrations of hydrogen over 5%, but that certification specifies the allowable concentration of hydrogen.

Related Item

• FR-14

Submitter Information Verification

Submitter Full Name: Jeff Kleiss
Organization: A.O. Smith/Lochinvar
Affiliation: AHRI
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 29 16:15:21 EDT 2025
Committee: NFG-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-5-NFPA 54-2025

Statement: Systems using pure hydrogen or at hydrogen admixtures higher than those defined in this code should be designed, installed, and operated in accordance with NFPA 2 as they are outside the scope of this code and NFPA 2 is the recommended code for those systems.