
NATIONAL FUEL GAS CODE

AGENDA**2027 National Fuel Gas Code (NFGC)****Second Draft Meeting****ANSI Z223 Committee and NFPA 54 Committee**

October 7 – 9, 2025

8:00 am – 5:00 pm ET

Charleston Marriott, Charleston, SC

- 1. Call To Order.** Franklin Switzer, NGFC Chair.
- 2. Introductions.** See committee roster below.
- 3. Chair Report.** Franklin Switzer.
- 4. Staff Liaison Reports.** Alex Ing (NFPA) and Luis Escobar (AGA).
- 5. Previous Meeting Minutes.** September 2024, Charlotte, NC. See below.
- 6. 2027 NFGC Second Draft.**
 - a. Public Comments.** See separate attachment.
 - b. Task Group Reports.**
 - i. Multi-Requirements and Exceptions.** See PCs 26, 38, 39, 40, 41, 42, 43, 44, and 45.
 - ii. Alternative Fuel.** Bob Torbin.
 - iii. Piping Underground Under Structures.** Mike Gorham.
 - iv. Industrial Coverage.** John Puskar.
 - v. Chapter 8 Purging.** Matt Wilber.
 - c. Committee Inputs.** See separate attachment.
- 7. Other Business.**
 - a. Equivalency Boilerplate.**
- 8. Future Meetings.**
- 9. Adjournment.**

ANSI Z223/NFPA 54 Secretary

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ANSI Z223 Committee on National Fuel Gas Code

2027 First Draft Meeting - **DRAFT** Minutes September 17-19, 2024 in Charlotte, NC

1. **Call to Order** – 8:01 with some audio issues.

2. **Introductions** – Attendees in the room introduced themselves. See **Attachment A: Attendance**.

3. **Chair Report** – Franklin Switzer welcomed everyone and provided an overview of how the meeting would work

4. **Staff Liaison Report** –

NFPA – Alex Ing shared pertinent information which included:

- Editorial cycle after this meeting
- Ballot open for 2 weeks later this fall/winter (probably January 2025)
- March 25, 2025 First Draft Report (Public Comments close June 3, 2025)
- Log into the NFPA website ASAP to make sure you deal with any issues with their new website

ANSI Z223 – Luis Escobar shared pertinent information which included:

- Review of the AGA Antitrust Compliance Guidelines
- The Z223 Committee will vote separately (from the NFPA 54 Committee) on each PI and other items
- Luis to issue a ballot to Z223-only Members after this meeting in conjunction with NFPA ballot
- Members of Z223 and NFPA 54 must vote via NFPA website
- Luis will consolidate the Z223 results afterwards
- ANSI Public Review will match with the NFPA First Draft Report and Public Comment closing date
- All committee documents and updates posted to www.aga.org/ansi and go to Z223

5. **Previous Meeting Minutes** – March 2024 Pre-Draft Meeting Minutes were revised and approved unanimously without revision (motion: Lemoff)

6. **NFPA 54 / ANSI Z223.1 First Draft** –

a. Public Inputs – Discussion ended on Wednesday at 2:00 pm. See **Attachment B: Preliminary Actions on Public Inputs**. Note that preliminary First Revision (FR) and Committee Input (CI) numbers may change during the editorial process. See the First Revision Report for final details.

b. Task Force Reports –

i. Multi-Requirements and Exceptions –

Alex Ing provided context for the origin of the group (NFPA 54 is not in compliance with the NFPA Manual of Style). Report was sent out to members of NFPA 54 and ANSI Z223 for their review prior to this meeting – it contained the recommended changes throughout the entire standard.

- Motion to create Committee Input (CI) for Section 1.1.1.1 [APPROVED new CI]
- Motion to create CI for Chapter 1 exclusive of Section 1.1.1.1 and other sections previously addressed in FRs [APPROVED new CI]
- Motion to create CI for Section 4.2 [APPROVED new CI]
- Motion to create CI for Chapter 4 exclusive of Section 4.2 [APPROVED new CI]
- Motion to create CI for Section 5.5.4 [APPROVED new CI]
- Motion to create CI for Section 5.8.1 [APPROVED new CI]

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- Motion to create CI for Chapter 5 exclusive of Sections 5.5.4 and 5.8.1 and including FR 11 [APPROVED new CI]
- Motion to create CI for Chapter 6 [APPROVED new CI]
- Motion to create CI for Chapter 7 [APPROVED new CI]
- Motion to create CI for Chapter 8 [APPROVED new CI]
- Motion to create CI for Section 9.4.1 [APPROVED new CI]
- Motion to create CI for Section 9.6.1 [APPROVED new CI]
- Motion to create CI for Chapter 9 exclusive of Sections 9.4.1 and 9.6.1 [APPROVED new CI]
- Motion to create CI for Chapter 10 [APPROVED new CI]
- Motion to create CI for Chapter 11 [APPROVED new CI]
- Motion to create CI for Chapter 12 [APPROVED new CI]
- Motion to create CI for Chapter 13 [APPROVED new CI]

The Task Force also developed multiple questions for the Committee to consider. The Committee reviewed and answered those questions.

- Motion to create FR for various tables in chapter 13 to change the notes to explicitly state that NA means “Not Allowed” [APPROVED new FR]
- Motion to create CI to move 7.1.1.2 to 7.1.2 [APPROVED new CI]
- Look up Patel report on combustion air for Section 9.3.3.2
- Motion to create new FR to add ASME B16.38 in various places in Table 5.11 for up to 125 psi [APPROVED new FR 41]

This Task Force was approved to continue working. Members: Bob Torbin, Ted Lemoff, Andy Thielen, Chris Byers, Eric Smith, Gregg Gress, Enrique Gonzalez, April Richardson. This task group will look at removing exception language, breaking out multi-requirement sections, and other items relating to the NFPA Manual of Style

ii. Alternative Fuel –

Met and their recommendations were considered during the discussion of applicable PIs.

This Task Force was approved to continue working. TG Chair: Bob Torbin*. Members: Chris Byers, Franklin Switzer, Ted Lemoff, Ted Williams, Jeremy Conjura, Jason Stanek, Jonathan Brania, John Puskar, Bruce Swiecicki, Andy Thielen. This task group will look at alternative fuel use in fuel gas systems.

iii. Repair, Renewal, or Rehabilitation of Piping – Task Force met since the Pre-First Draft meeting and suggested two changes (new Sections 4.6 and revisions to Section 8.1.1.1).

4.6 Inspection and repairs following a fire, explosion or other damage.

Where a gas piping system is affected by fire, explosion, or other damage, the piping system shall be inspected in accordance with chapter 8 and replaced or repaired using materials or methods in accordance with ~~the this code~~ or approved. [APPROVED – New FR]

8.1.1.1 Prior to acceptance and initial operation or after repairs, all piping installations shall be visually inspected and pressure tested to determine that the materials, design,

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fabrication, and installation practices comply with the requirements of this code.

[APPROVED – New FR]

SUBSTANTIATION: The committee was made aware that repairs to leaking popping systems post fire, explosion or together damage are not currently addressed in the Code and this requirement specifies what must be done to place the system back in service.

This Task Force was closed.

iv. Piping Underground Under Structures –

No report at this meeting.

This Task Force was approved to continue working. TG Chair: Mike Gorham. Members: Bob Torbin*, Ted Williams, Andy Thielen, Phil Ribbs, Enrique Gonzales, Gregg Gress, Paul Gugliotta, Tung Nguyen. The task group will look at correlating piping underground under structures with the other model codes.

v. Flammable Air Gas Mixtures –

No report at this meeting.

This Task Force was closed.

vi. Industrial Coverage –

They met and submitted multiple Pls.

This Task Force was approved to continue working. TG Chair: John Puskar. Members: Mike Gorham, Gregg Gress, Ted Lemoff, Andy Thielen, Steen Hagensen, Franklin Switzer. The task group will look into revising requirements based on common industrial applications.

vii. Chapter 8 Purging –

No report at this meeting.

This Task Force was approved to continue working.

viii. Table Consolidation –

Met and their recommendations were considered during the discussion of applicable Pls.

This Task Force was closed. TG Chair: Matt Wilber. Members: John Puskar, Adam Hansen*, Jean McDowell, Gregg Gress, Sean George, Mike Gorham, Adam Smith, Mike Bethany, Chris Wagner*, Enrique Gonzalez. The task group will look into the following: 1. Attempt to define a flow to the requirements that addresses how the work would actually be performed safely in the field similar to how NFPA 56 addresses purging workflows. 2. Address issues related to residential small

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commercial that can be distinct and separate from industrial piping systems purging. 3. Address distances that are given for work practices where this is no scientific basis for the distances that are provided.

ix. Nonapplication –

Met and their recommendations were considered during the discussion of applicable Pls.

This Task Force was closed.

x. New Business –

Diversity Factors – Ted Lemoff requests for research foundation to look into establishing diversity factors. Luis to bring it up with GTI/OTD.

7. Other Business –

a. Equivalency Revision – Ted Lemoff requests for research foundation to look into establishing diversity factors. Luis to bring it up with GTI/OTD.

8. Future Meetings – Selection of dates and TBD on whether it will be in-person or virtual depending on the amount of Public Comments.

Various suggestions on locations and when we should NOT meet (definitely not September 2025).

Doodle poll in the spring for dates and locations.

9. Adjournment – Meeting ended 5:09 pm on Thursday, September 19, 2024.

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ATTACHMENT A

Attendance

ANSI Z223 Committee							
Attendance - 2027 First Draft Meeting							
Cat.	Member Status	First Name	Last Name	DAY 1	DAY 2	DAY 3	Representing
M	PV	Eric	Adair	Y		Y	Hearth, Patio & Barbecue Association
SE	PV	Thomas	Andrews	Y	Y	Y	Self
SE	PV	Michael	Bethany	Y	Y		Gas Piping Safety Service
AR-TL	PV	Jonathan	Brania	Y	Y	Y	Underwriters Laboratories:
I-M	PV	James P.	Brewer	Y	Y	Y	National Chimney Sweep Guild
SE	PV	Charles	Brown				Advanced Engineering Investigations (AEI)
I-M	PV	Daniel	Buuck	Y	Y	Y	National Assoc. of Home Builders
ES	PV	Christopher	Byers	Y	Y	Y	American Gas Association
M	PV	Bob	Carpenter				Orbia (Wavin)
SE	PV	Jeremy	Conjura	Y	Y	Y	Corning
I-M	PV	Gerald	Davis	Y	Y	Y	Williams Construction and Meter Services
M	PV	Tom	Deary		Y		Air Conditioning, Heating, and Refrigeration Institute
ES	PV	Ralph	Euchner		Y		American Gas Association
AR-TL	PV	Marvin	Evans	Y	Y	Y	CSA Group
M	PV	Pennie	Feehan	Y	Y	Y	Copper Development Association
ES	PV	Jean	McDowell				Texas Propane Gas Association
EA	PV	Enrique	Gonzalez	Y	Y	Y	International Assoc. of Plumbing & Mech. Officials
ES	PV	Michael R.	Gorham	Y		Y	The National Propane Gas Association
EA	PV	Gregg	Gress	Y	Y	Y	International Code Council
M	PV	Steen	Hagensen				ENERVEX, Inc.
EA	PV	Peter	Holmes	Y	Y	Y	Maine Fuel Board
SE	PV	Nasir	Hussain	Y	Y	Y	Combustion Science & Engineering
SE	PV	Zuhair	Ibrahim		Y		Ibrahim & Associates
M	PV	James	Kendzel				American Supply Association
M	PV	Jeff	Kleiss	Y	Y	Y	Air Conditioning, Heating, and Refrigeration Institute
SE	PV	Theodore	Lemoff	Y	Y	Y	TLemoff Engineering
ES	PV	Andrea	Papageorge	Y	Y	Y	American Gas Association
M	PV	John	Park				Association of Home Appliance Manufacturers
I	PV	Brett	Readout	Y	Y		EMC Insurance Companies
EA	PV	April Dawn	Richardson	Y	Y	Y	Railroad Commission of Texas
ES	PV	Jon	Russell	Y	Y	Y	American Public Gas Association
M	PV	Adam	Smith	Y	Y	Y	Viega
EA	PV	Eric C.	Smith	Y	Y		International Fire Marshals Association
ES	PV	Jason	Stanek	Y	Y	Y	American Gas Association
SE	PV	Franklin	Switzer	Y	Y	Y	S-afe, Inc.
M	PV	Calvin	Timmons	Y	Y	Y	Willbanks & Associates
SE	PV	Andy	Thielen				ESi
M	PV	Robert	Torbin	Y	Y	Y	Air Conditioning, Heating, and Refrigeration Institute
ES	PV	Christopher	Wagner	Y	Y	Y	The National Propane Gas Association

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M	PV	Brian	Williams	Y	Y	Y	Ferguson Enterprises
SE	PV	Ted	Williams	Y	Y		Natural Gas Direct
SE	PV	Duane	Wolf	Y	Y		Wolf Engineering
EA	A	Hugo	Aguilar				International Assoc. of Plumbing & Mech. Officials
ES	A	Eric	Benstock				Texas Propane Gas Association
EA	A	LaToya	Carraway	Y	Y	Y	International Code Council
I	A	Kody	Daniel	Y		Y	EMC Insurance Companies
ES	A	Paul	Gugliotta	Y	Y		American Gas Association
M	A	Young	Han		Y	Y	ENERVEX, Inc.
AR-TL	A	Travis	Hardin				Underwriters Laboratories:
I-M	A	Vladimir	Kochkin				National Assoc. of Home Builders
AR-TL	A	Colin	Moorhouse				CSA Group
M	A	Harold	Moret				Copper Development Association
SE	A	John	Puskar	Y	Y		Technical Services LLC
ES	A	Stan	Smith	Y		Y	American Gas Association
ES	A	Bruce	Swiecicki	Y	Y	Y	The National Propane Gas Association
EA	A	Kent	Thompson	Y			Railroad Commission of Texas
SE	A	Matt	Wilber	Y	Y	Y	ESi

Guests:

Jim Bunsey (Propane Education and Research Council)
Roger Griffith (Griffith Engineering)
Tim McNulty (RM Manifold Group)
Marek Kulik (Carrier/UTC)
George Ragula (RagulaTech)
Brian Ryglewicz (Chimney Design Solutions)
Chris Mobley (UL Solutions)
Brian Kurtz (Carrier/UTC)
Lisa Reiheld (ICC)
Ndir Khalifa (AHRI)
Larry Gill (IPEX)
Tung Nguyen (Emerson Automation Solutions)
Charon McNab (National Carbon Monoxide Awareness Association)
Christina Binkowski (NCMAA)
Gaitano Altomare (IPEX)
Phil Ribbs (California State Pipe Trades Council)
John Sargeant (OmegaFlex)

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ATTACHMENT B

Preliminary Meeting Actions (Agenda Item 6.a)

Meeting Order	Section	PI #	Submitter	Intent/Comment	Action
90	1.1.1.1(A)	14	John Puskar	See Committee statement	Resolve
91	A.1.1.1.1(A)	16	John Puskar	See Committee statement	Resolve
92	1.1.1.1(D)	15	John Puskar	See Committee statement	Resolve
93	1.1.1.1(F)	17	John Puskar	See Committee statement	Resolve
94	1.1.1.2	19	John Puskar	See Committee statement	CI
95	1.1.1.2	33	John Puskar	See Committee statement	Resolve
97	1.1.1.2	34	John Puskar	See TG statement	FR based on TG
97	1.1.1.2	36	John Puskar	See TG statement	Resolve
98	1.1.1.2	37	John Puskar	See TG statement	FR based on TG
99	1.1.1.2	38	John Puskar	See TG statement	FR based on TG
101	1.1.1.2	39	John Puskar	See Committee statement	FR
102	1.1.1.2	43	John Puskar	See Committee statement	Resolve
103	1.1.1.2	44	John Puskar	See Committee statement	Resolve
100	1.1.1.2	45	John Puskar	See TG statement	Resolve
104	1.2	86	Theodore Lemoff	See Committee statement	FR 26
126	2.3.5	87	Kelly Nicoletto		See New13
106	3.3.4.4.2	5	Theodore Lemoff	See Committee statement	FR 28
107	3.3.4.4.3	2	Theodore Lemoff	See Committee statement	FR 29
108	3.3.4.4.4	9	Theodore Lemoff	See Committee statement	FR 30
109	3.3.4.4.5	3	Theodore Lemoff	See Committee statement	FR 31
110	3.3.13	4	Theodore Lemoff	See Committee statement	FR 32
11	3.3.16.5.1	11	Theodore Lemoff	See Committee statement	FR 33
1	3.3.49 [Excluding any Sub-Sections]	117	Ted Williams	Can be resolved by FR for 119/120	Resolve
2	New Section after 3.3.59	118	Ted Williams	Can be resolved by FR for 119/120	Resolve
111	3.3.83	76	Sean George	See Committee statement	Resolve
112	3.3.83	77	Sean George	See Committee statement	Resolve
113	3.3.83	78	John Puskar	See Committee statement	Resolve
114	3.3.83	92	John Puskar	See Committee statement	FR 34
115	3.3.93	10	Theodore Lemoff	See Committee statement	FR 35
116	3.3.99.2	6	Theodore Lemoff	See Committee statement	FR 36
117	3.3.99.4	7	Theodore Lemoff	See Committee statement	FR 37
122	3.3.99.6	8	Theodore Lemoff	See Committee statement	Resolve
3	Chapter 4	119	Ted Williams	TBD	FR for 119/120 based on TG rec
4	Chapter 4	120	Ted Williams	TBD	FR for 119/120 based on TG rec
5	4.1	90	John Puskar	See Committee statement	FR 1
34	4.1	91	John Puskar	See Committee statement	Resolved w/ 46
6	4.2.1	79	Theodore Lemoff	See FR statement	FR 2
35	New Section after 4.2	46	John Puskar	See Committee statement	Resolved w/ 91
7	4.3.1	54	John Puskar	See Committee statement	Resolve
8	4.3.2	55	John Puskar	See Committee statement	FR 3 (deletes annex too)
9	4.3.2.1	56	John Puskar	See PI 55	See PI 55
10	4.3.2.2	57	John Puskar	See PI 55	See PI 55
11	4.4	58	John Puskar	See Committee statement	Resolve
12	4.5	48	John Puskar	See Committee statement	Resolve
13	5.2.1	52	John Puskar	See Committee statement	Resolve
15	5.2.2.2	53	John Puskar	See Committee statement	FR 4
16	5.3.2.3	98	John Puskar	See Committee statement	FR 5
17	5.5.4.1.1	65	Ian Wright	See Committee statement	Resolve
18	New Section after 5.5.4.1	12	Adam Smith	See Committee statement	FR 6 (new 5.5.4.1.2 and renumber the rest)
19	5.5.4.2	115	Bruce Swiecicki	See Committee statement	Resolve
20	5.5.5	116	Theodore Lemoff	See Committee statement	FR 7
36	Sections 5.5.7.1, 5.5.7.2, 5.5.7.3, 5.5.7.4, 5.5.7.5	51	Theodore Lemoff	See Committee statement	FR 14
21	5.5.8	24	Theodore Lemoff	See Committee statement	Resolve
22	5.5.10 [Excluding any Sub-Sections]	80	Theodore Lemoff	See Committee statement	Resolve
24	5.7.2	13	Kevin Carlisle	See Committee statement	FR 9

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25	New Section after 5.7	67	Jonathan Sargeant	See Committee statement	FR 10
26	5.8.4	93	John Puskar	See Committee statement	FR 11
27	5.8.7	94	John Puskar	See Committee statement	FR 12 based on MOS TG
28	5.8.8	95	John Puskar	See Committee statement	Resolve
30	5.13	63	John Puskar	See Committee statement	Resolve
29	5.14	96	John Puskar	See Committee statement	Resolve
32	5.14	97	John Puskar	See Committee statement	Resolve
37	Chapter 6 [Title Only]	59	John Puskar	See Committee statement	Resolve
38	6.1	60	John Puskar	See Committee statement	Resolve
39	6.2 [Excluding any Sub-Sections]	47	John Puskar	See Committee statement	Resolve
49	7.2.4	61	John Puskar	See Committee statement	Resolve
50	7.2.5	62	John Puskar	See Committee statement	FR 15
51	7.4.1	68	John Puskar	See Committee statement	Resolve
52	7.7.1.2	69	John Puskar	See Committee statement	Resolve
53	7.7.1.3	70	John Puskar	See Committee statement	Resolve
54	7.7.2.1	71	John Puskar	See Committee statement	Combine and Resolve 71 and 72
55	7.7.2.1	72	John Puskar	See Committee statement	Combine and Resolve 71 and 72
56	7.11	81	Theodore Lemoff	See Committee statement	FR 16
59	8.1.1.1.1	18	Steven Winstead	See Committee statement	Resolve
60	8.1.3.1	22	Theodore Lemoff	See Committee statement	FR 17
61	8.2.3	49	Jean McDowell	See Committee statement	Resolve
63	8.3.1 [Excluding any Sub-Sections]	64	John Puskar	See Committee statement	Resolve
64	8.3.1 [Excluding any Sub-Sections]	74	Sean George	See Committee statement	Resolve
65	8.3.1.3	99	John Puskar	See Committee statement	Combine and Resolve 99, 101, 101, and 104
66	8.3.1.3	100	John Puskar	See Committee statement	Combine and Resolve 99, 101, 101, and 104
67	8.3.1.3	101	John Puskar	See Committee statement	Combine and Resolve 99, 101, 101, and 104
68	8.3.1.3	104	John Puskar	See Committee statement	Combine and Resolve 99, 101, 101, and 104
69	8.3.2	103	John Puskar	See Committee statement	Resolve
70	8.3.2 [Excluding any Sub-Sections]	102	John Puskar	See Committee statement	Resolve
71	9.1.1.3	106	John Puskar	See Committee statement	Resolve
73	9.1.4	107	John Puskar	See Committee statement	Resolve
74	9.1.5	108	John Puskar	See Committee statement	Resolve
75	9.1.6.1	109	John Puskar	See Committee statement	Combine and Resolve 109 and 110
76	9.1.6.2	110	John Puskar	See Committee statement	Combine and Resolve 109 and 110
77	9.1.9	111	John Puskar	See Committee statement	Resolve
78	9.3.1.1	112	John Puskar	See Committee statement	Resolve
84	9.3.2.2	29	Thomas Andrews	See Committee statement	FR 23
85	A.9.3.2.2	20	Thomas Andrews	See Committee statement	FR 23
86	A.9.3.2.2	21	Thomas Andrews	See Committee statement	FR 23
87	A.9.3.2.2	30	Thomas Andrews	See Committee statement	FR 23
79	9.3.7.1	113	John Puskar		FR based on MOS TG
80	9.3.7.3	114	John Puskar		FR based on MOS TG
88	9.6.8	89	Theodore Lemoff	See Committee statement	Resolve
81	New Section after 10.18	122	NFPA Holds	See Committee statement	FR 18
82	10.24.2	84	Theodore Lemoff	See Committee statement	FR 19
58	12.3.2 [Excluding any Sub-Sections]	82	Theodore Lemoff	See Committee statement	Resolve
57	Sections 12.5.2, 12.5.3, 12.5.4	105	Larry Gill	See Committee statement	Resolve
118	G.3.3	1	Richard Martin	See Committee statement	FR 38
127	K.1.2.8	88	Kelly Nicoletto		See New13
119	Global Input	25	Theodore Lemoff	See Committee statement	FR 39
47	Global Input	27	Theodore Lemoff	See Committee statement	FR for Tables 6.2.1 (a), (b), (h), and (i)
41	Global Input	28	Theodore Lemoff	See Committee statement	FR - affects subseq table #s and references
42	Global Input	31	Theodore Lemoff	See Committee statement	FR - affects subseq table #s and references
43	Global Input	32	Theodore Lemoff	See Committee statement	FR - affects subseq table #s and references
44	Global Input	35	Theodore Lemoff	See Committee statement	FR for Table 6.2.1(q)

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45	Global Input	40	Theodore Lemoff	See Committee statement	FR for Table 6.2.1(j)
46	Global Input	41	Theodore Lemoff	See Committee statement	FR for Table 6.2.1(p)
48	Global Input	42	Theodore Lemoff	See Committee statement	Resolve
120	Global Input	83	Theodore Lemoff	See Committee statement	FR 40
121	Global Input	124	NFPA TIA	See Committee statement	Resolve - This is our response to the PI
14	5.2.1	New 01	Theodore Lemoff	N/A	New FR for 5.2.1 - FAILED
23	5.5.10	New 02	Theodore Lemoff	See Committee statement	New FR for 5.5.10 - FR 8
31	5.13	New 03	Theodore Lemoff	N/A	New FR for 5.13 - FAIL
33	5.14(1)	New 04	Jeff Kleiss	See Committee statement	New FR for 5.14(1) - FR 13
40	6.1	New 05	Theodore Lemoff	N/A	New FR for 6.1 - FAILED
62	3.3.96.5	New 06	Chris Wagner	N/A	New FR for 3.3.96.5 Piping System - FAILED
72	9.1.1.4	New 07	Theodore Lemoff	N/A	New FR for 9.1.1.4 - FAILED
83	Annex C (new C.2)	New 08	Chris Wagner	See Committee statement	New CI (FR 24)
89	Figures 9.6.8	New 09	Gregg Gress	See Committee statement	New FR for image - FR 25
96	1.1.1.2	New 10	April Richardson	N/A	New FR for 1.1.1.2 - FAILED
105	1.4.1	New 11	Theodore Lemoff	See Committee statement	New FR for 1.4 - FR 27
123	3.3.99.6	New 12	Theodore Lemoff	N/A	New FR for 3.3.99.6 - FAILED
124	Section 2.3 and Appendix K	New 13	Alex Ing	See Committee statement	New FR
125	Section 2.4	New 14	Alex Ing	N/A	New CI for reference extracts

ROSTER

August 2025

Z223

Z223 COMMITTEE: NATIONAL FUEL GAS CODE

SCOPE: Development of a safety code for gas piping systems on consumers' premises and the installation of gas utilization equipment and accessories for use with fuel gases such as natural gas, manufactured gas, liquefied petroleum gas in the vapor phase, liquefied petroleum gas-air mixtures, or mixtures of these gases, including:

- a. The design, fabrication, installation, testing, operation and maintenance of gas piping systems from the point of delivery to the connections with each gas utilization device. Piping systems covered by this code are limited to a maximum operating pressure of 125 psig. For purposes of this code, the point of delivery is defined as the outlet of the meter set assembly or the outlet of the service regulator or service shutoff valve where no meter is provided.
- b. The installation of gas utilization equipment, related accessories, and their combustion air and venting systems.

CHAIRMAN: Franklin Switzer

ADMINISTRATIVE SECRETARIAT: Luis Romeo Escobar

NFPA LIAISON: Alex Ing

Year Joined	Name and Company	Membership Category
Air-Conditioning, Heating and Refrigeration Institute		
2024	Tom Deary Director of Codes AHRI 2311 Wilson Blvd, Suite 400 Arlington, VA 22201 703.600.0338 tdeary@ahrinet.org	M
2017	Jeff Kleiss Product Certification Engineer Lockinvar, LLC 300 Maddox Simpson Pkwy Lebanon, TN 37090 615.889.8900 x2224 jkleiss@lochinvar.com	M
2017	Robert Torbin Director of Codes and Standards OmegaFlex Inc. 213 Court Street Suite 701 Middletown, CT 06457 508.877.9239 bob.torbin@omegaflex.net	M
American Gas Association		
2019	Christopher Byers Manager CNG Design, Construction, and Operations Piedmont Natural Gas Company, Inc. 1712 Three and Twenty Road Easley, SC 29642 864.286.7909 christopher.byers@duke-energy.com	ES
2007	Andrea L. Papageorge Manager, Codes and Standards	ES

Year Joined	Name and Company	Membership Category
	Southern Company Gas Ten Peachtree Place, Location 1367 Atlanta, GA 30309 404.472.7390 apapageo@southernco.com	
2020	Ralph E. Euchner Manager – Gas Operations Dominion Energy North Carolina - Gas 800 Gaston Road Gastonia, NC 28056 704.718.4240 ralph.euchner@dominionenergy.com	ES
2015	Jason S. Stanek Director, Commercial & Contractor Services Metropolitan Utilities District 1723 Harney Street Omaha, NE 68102-1960 402.504.7983 Jason_stanek@mudnebr.com	ES
2020	Alternate 1 Stan Smith Comm. Compliance & Installation Manager Oak Ridge Utility District PO Box 4189 Oak Ridge, TN 37830 865.220.6064 ssmith@orud.org	ES
2018	Alternate 2 Paul Gugliotta Senior Engineer National Grid 175 East Old Country Road Hicksville, NY 11801-4257 516. 545.3841 Paul.Gugliotta@nationalgrid.com	ES
American Public Gas Association		
2020	Jon Russell Safety & Regulatory Compliance Manager Clearwater Gas System 777 Maple St Clearwater, FL 33755 727.562.4900 x7434 jonscott.russell@clearwatergas.com	ES
Association of Home Appliance Manufacturers		
2023	John Park Sr. Product Regulatory & Standards Engineer Association of Home Appliance Manufacturers 1111 19 th St NW, Suite 402 Washington, DC 20036 202.872.5955 x319 jpark@aham.org	M
Copper Development Association		
2010	Pennie L. Feehan Pennie L. Feehan Consulting	M

Year Joined	Name and Company	Membership Category
	Plumbing & Mechanical Codes & Standards Specialist 2393 S Brentwood Dr. Palm Springs, CA 92264 760.980.0830 penniefeehan@me.com	
2024	Alternate Harold Moret Project Manager Copper Development Association 1600 International Drive McLean, VA 22102 212.251.7211 harold.moret@copperalliance.us	M
Hearth, Patio & Barbecue Association		
2019	Eric Adair, P.E. Sr. Manager - Codes & Standards Hearth, Patio & Barbecue Association 1901 N Moore St Suite 600 Arlington, VA 22209 707.694.1057 adair@hpba.org	M
International Association of Plumbing and Mechanical Officials		
2017	Enrique Trejo Gonzalez Senior Code Development Administrator 4755 E. Philadelphia Street Ontario, CA 91761 909.230.5535 enrique.gonzalez@iapmo.org	EA
2017	Alternate Hugo Aguilar, P.E. Vice President of Codes and Standards 4755 E. Philadelphia Street Ontario, CA 91761 909.472.4111 hugo.aguilar@iapmo.org	EA
International Code Council		
2021	Gregg Gress Consultant International Code Council 8448 S 100 W North Judson, IN 46366 219.689.3190 greggagress@gmail.com	EA
2020	Alternate LaToya Carraway Technical Staff International Code Council 888.422.7233 x4347 lcarraway@iccsafe.org	EA
International Fire Marshals Association		
2016	Eric C. Smith Chief Inspector Nevada LP-Gas Board PO Box 338	EA

Year Joined	Name and Company	Membership Category
	Carson City, NV 89702 esmith@nvlpgasboard.com	
National Association of Home Builders		
2021	Daniel Buuck Senior Program Manager, Codes and Standards National Association of Home Builders 1201 15th Street, NW Washington, DC 20005 202.266.8366 dbuuck@nahb.org	I-M
2019	<u>Alternate</u> Vladimir Kochkin Director, Codes and Standards National Association of Home Builders 1201 15th Street, NW Washington, DC 20005 202.266.8574 vkochkin@nahb.org	I-M
National Chimney Sweep		
1990	Jim P. Brewer President Magic Sweep Corporation 205 Otter Cove Deltaville, VA 23043 757.435.0407 jim@rooftopsafetyusa.com	I-M
National Fire Protection Association		
2019	Alex Ing Associate Engineer National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7954 617.984.7707 Alng@nfpa.org	NFPA Staff Liaison
National Propane Gas Association		
1990	Michael R. Gorham Northwest LP-Gas Company 1608 NW 4 Street Grand Rapids, MN 55744-2104 612.390.5619 mike@nwgas.com	ES
2023	Christopher Wagner Vice President, Codes, Standards, & Safety National Propane Gas Association 1140 Connecticut Ave NW, Ste 1075 Washington, DC 20036 202.466.7202 cwagner@npga.org	ES
1994	<u>Alternate</u> Bruce Swiecicki, PE Vice President, Regulatory & Technical Services National Propane Gas Association 342 N. LaGrange Road Suite 353 Frankfort, IL 60423 815.806.9035	ES

Year Joined	Name and Company	Membership Category
	bswiecicki@npga.org	
Organizations and Individuals		
2018 (reappr. 2023)	Thomas Andrews Self TR Energy Consulting 6568 E. 100 N. Kokomo, IN 46901 765.860.4047 trenergyconsulting@gmail.com	SE
2019	Michael Bethany, PE President Gas Piping Safety Service 1088 Brookpoint Drive Medina, OH 44256 440.590.6771 mike.bethany@gaspipingsafetyservices.com	SE
2016	Jonathan Brania Principal Engineer Underwriters Laboratories LLC 12 Laboratory Drive Research Triangle Park, NC 27709-3995 919.549.1768 jonathan.brania@ul.com	AR-TL
2019	<u>Alternate</u> Travis Hardin Principal Engineer Manager Underwriters Laboratories LLC 12 Laboratory Drive Research Triangle Park, NC 27709 919.549.1670 travis.f.hardin@ul.com	AR-TL
2024	Charles Brown Advanced Engineering Investigations 8197 W Brandon Drive Littleton, CO 80125 cbrown@aeiengineers.com	SE
2022	Bob Carpenter Codes and Standards Manager Wavin USA 950 Winter Street Waltham, MA 02451 Bob.carpenter@orbia.com	M
2024	Jeremy Conjura Corning Inc. 11773 Lower Drive Corning, NY 14830 conjurajr@corning.com	SE
2024	Gerald Davis Williams Construction and Metering Services 7930 Cryden Way Suite 100 Forestville, MD 20747 gdavis@williamsmeter.com	I-M
2021	Marvin Evans CSA Group 178 Rexdale Blvd Toronto, ON M9W 1R3 Canada 416.747.2342	AR-TL

Year Joined	Name and Company	Membership Category
	marvin.evans@csagroup.org	
2011	Alternate Colin Moorhouse CSA Group 178 Rexdale Blvd Toronto, ON M6R 2T2 Canada 416.747.2694 colin.moorhouse@csagroup.org	AR-TL
1998	Steen Hagensen President & CEO ENERVEX Inc. 1685 Bluegrass Lakes Parkway Alpharetta, GA 30004 770.587.3238 steenh@enervex.com	M
2024	Alternate Young Han ENERVEX Inc. 1685 Bluegrass Lakes Parkway Alpharetta, GA 30004 212.251.7211 youngh@enervex.com	M
2019	Peter Holmes Sr. Inspector Maine Fuel Board 35 State House Station Augusta, ME 04333 207.446.2826 peter.t.holmes@maine.gov	EA
2024	Nasir Hussain Combustion Science & Engineering 8940 Old Annapolis Road Suite L Columbia, MD 21045 nhussain@csefire.com	SE
2024	Zuhair Ibrahim Ibrahim & Associates 22647 Ventura Blvd #432 Woodland Hills, CA 91364 zuhair@ibrahim-eng.com	SE
2024	James Kendzel American Supply Association Retired July 2025	M
2011	Theodore C. Lemoff Consultant 13821 Callisto Avenue Naples, FL 34109 617.308.0159 tlemoffengineering@gmail.com	SE
2017	Alternate John Puskar President Prescient Technical Services LLC 11699 Brookpark Road Parma, OH 44130 216.213.6201 jpuskar@aol.com	SE
2016	Brett Readout	I

Year Joined	Name and Company	Membership Category
	Sr Valuation Engineer EMC Insurance Company 717 Mulberry Street PO Box 712 Des Moines, IA 50303 515.345.2451 brett.d.readout@emcins.com	
2016	Alternate Kody Daniel EMC Insurance Company 717 Mulberry Street PO Box 712 Des Moines, IA 50303 515.345.7890 kody.n.daniel@emcins.com	I
2024	Adam Smith Viega Manager, Codes and Standards 585 Interlocken Blvd Broomfield, CO 80021 Adam.smith@viega.us	M
2012	Franklin Switzer, Jr. President S-afe, Inc. 10890 Brown Road Corning, NY 14830-3758 765.284.8164 fswitzer@s-afe.com	SE
2024	Calvin Timmons Willbanks & Associates 735 Buffalo Run Missouri City, TX 77489 Calvint@willbanksinc.com	M
1998	Andy Thielen Senior Managing Consultant/P.E. ESi 2355 Polaris Lane North Suite 120 Plymouth, MN 55447 763.447.2751 ajthielen@engsys.com	SE
2021	Alternate Matt Wilber Senior Consultant ESi 2355 Polaris Lane North Suite 120 Plymouth, MN 55447 612.812.7584 mwwilber@engsys.com	SE
2024	Brian Williams Ferguson Enterprises 7889 Sunset Drive Hayes, VA 23072 Brian.williams1@ferguson.com	M
2024	Ted Williams Natural Gas Direct LLC	SE

Year Joined	Name and Company	Membership Category
	1101 South Forest Drive Arlington, VA 22204 ngdllc@outlook.com	
2024	Duane Wolf Wolf Engineering 212 Airport Road Ames, IA dwolf@wolfengineeringspc.com	SE
Railroad Commission of Texas		
2025	Karley Rudynski Alternative Fuels Safety Director Railroad Commission of Texas 1701 North Congress Wm. B. Travis State Office Building Austin, TX 78711 512.463.3935 Karley.rudynski@rr.texas.gov	EA
2019	Alternate Kent Lowery Thompson Safety Specialist, Licensing and Compliance Manager Alternative Fuels Safety Railroad Commission of Texas P.O. Box 12967 Austin, TX 78711-2967 512.936.4146 Kent.thompson@rrc.texas.gov	EA
Texas Propane Gas Association		
2019	Jean McDowell President McDowell Owens Engineering, Inc. 740 E 13 th Street Houston, TX 77008 713.299.7275 j.mcdowell@mcdowellowens.com	ES
2024	Alternate Eric Benstock Director of Operations McDowell Owens Engineering 740 East 13 th Street Houston, TX 77008 713.206.3068 e.benstock@mcdowellowens.com	ES

MEMBERSHIP BY CATEGORY

To ensure a substantial balance of interests on the Committee, not more than one third of the membership shall come from any one classification.

	TOTAL	%
Applied Research/Testing Laboratory (AR-TL):	2	5
Energy Supplier (ES):	8	20
Enforcing Authority (EA):	5	12
Installer/Maintainer (I-M):	3	7
Insurance (I):	1	2
Manufacturers (M):	11	27
Special Expert (SE):	11	27
TOTAL:	41	100

MEMBERSHIP CATEGORIES

(1) Applied Research/Testing Laboratory (AR-TL)	A representative of an independent testing laboratory or independent applied research organization that promulgates or applies standards.
(2) Energy Supplier (ES)	A representative of an entity that supplies energy to installations covered by the standard
(3) Enforcing Authority (EA)	A representative of an agency, organization or governmental body that promulgates and/or enforces standards.
(4) Installer/Maintainer (I-M)	A representative of an entity that is in the business of installing or maintaining a product, assembly, system, or portion thereof, that is affected by the standard.
(5) Insurance (I)	A representative of an insurance company, broker, agent, bureau, or inspection agency.
(6) Manufacturer (M)	A representative of a maker or marketer of a product, assembly, system, or portion thereof, that is affected by the standard.
(7) Special Expert (SE)	A person not representing any of the previous classifications, but who has special expertise in the scope of the standard, or portion thereof.

PANEL LISTING¹

Z223 ADVISORY PANEL ON APPLIANCE INSTALLATION

WILL NOT BE USED IN 2027 DEVELOPMENT CYCLE

Z224 ADVISORY PANEL ON PIPING

WILL NOT BE USED IN 2027 DEVELOPMENT CYCLE

Z223 ADVISORY PANEL ON VENTING

WILL NOT BE USED IN 2027 DEVELOPMENT CYCLE

¹ See panel member information in Z223 Committee Roster above for member details (address, phone number, etc.)

NATIONAL FUEL GAS CODE



Antitrust Compliance Guidelines

The American Gas Association and its member companies are committed to full compliance with all laws and regulations, and to maintaining the highest ethical standards in the way we conduct our operations and activities. Our commitment includes strict compliance with federal and state antitrust laws. You bear the ultimate responsibility for assuring that your actions comply with applicable antitrust laws and these Guidelines.

- **DO share these guidelines with attendees at AGA meetings and events**
- **DO consult counsel early on all potential antitrust issues (e.g., data requests, standard setting, information sharing, etc.)**
- **DO consult with counsel on any documents, requests, or non-routine correspondence that potentially raise antitrust concerns.**
- **DO have an agenda for all AGA meetings, and stick to it. Ask counsel to attend meetings where sensitive antitrust subjects might arise.**
- **DO NOT, without prior review by counsel, discuss:**
 - Confidential business matters and competitively sensitive information
 - Prices, discounts, terms of sale, profit margins
 - Allocating markets, energy services, customers, or service territories
 - Whether or not to conduct business with any other company
 - The performance of any specific product, vendor, or service provider
- **DO NOT stay at a meeting or any other gathering where those kinds of discussions are occurring.**
- **DO NOT create any documents that might be misinterpreted to suggest that AGA condones or is involved in anticompetitive behavior.**

Safety Related Issues

Information related to product defects or safety issues that are not an imminent threat and touch on competitive issues or focus on a specific product may be exchanged if based on:

- A notice issued by a federal or state regulator with jurisdiction
- A notice issued by the manufacturer
- Objective, data-driven analysis filed with a regulator with jurisdiction

All safety related communications should be based on observed, objective, replicable data-driven analysis. The affected vendors must be alerted.

Price and Cost Information

Price and cost information may generally be shared if:

- The data is more than 3 months old
- There are at least 5 providers for each statistic and no individual response is more than 25% on a weighted basis, and
- The data is collected by a third-party (e.g., AGA) and sufficiently aggregated so that no individual provider's data is identifiable.

Long-term forecasts and the discussion of general market conditions directed to a public audience are generally acceptable.

Discussion of the cost impact of a proposed regulation in support of advocacy efforts is generally acceptable.

If you have specific questions about these Guidelines or potential antitrust concerns, please contact the AGA Office of General Counsel or your company's legal counsel.

March 2022

ANSI Z223/NFPA 54 Secretary

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