

**Draft Minutes**  
**ASC Z223 / NFPA 54**  
**National Fuel Gas Code Committee**  
Hilton Palm Springs Resort  
Palm Springs, CA  
*October 16-18, 2012*

**TO BE APPROVED**

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## COMMITTEE ON NATIONAL FUEL GAS CODE

### Minutes

ASC Z223 / NFPA 54

National Fuel Gas Code Committee

Hilton Palm Springs Resort

Palm Springs, CA

October 16-18, 2012

1. Call to Order, Self-Introductions & Attendance: Chair, Tom Crane, called the meeting to order and members and guests introduced themselves. (Attachment A).
2. Adoption of Agenda: The agenda was approved as distributed.
3. Announcements: Participants were made aware of the fire alarms/exits and the AGA antitrust guidelines.
4. Membership Review:
  - a. ASC Z223 Committee Updates – The membership roster and interest category balance was reviewed. Mr. Franklin Switzer’s new member ballot was conducted and approved. The committee is in balance in accordance with its operating procedures.
  - b. NFPA 54 Committee Updates – The membership roster was reviewed. The NFPA Standards Council is responsible for maintaining committee balance and was noted that it is in balance.
5. Approval of Committee Meeting Minutes: The November 2011 full committee and October 2012 Advisory Panel minutes were approved as distributed.
6. Future Meeting Schedule & Need for Advisory Panel Meetings:
  - a. The proposed 2013 & 2014 meeting schedule was reviewed without changes (Attachment B). A motion was made and approved to recommend that the June 2013 meeting be held in Portland, ME.
  - b. The committee discussed the future need for advisory panel meetings to screen public input in light of a decline in received input. The committee consensus is that the advisory panel meetings are useful by providing initial review and recommendations. The panel meetings should be held for the next revision cycle.
7. NFPA Revised Process Presentation: Denise Beach provided an overview of the revised NFPA process.
8. CSST Discussion:
  - a. *AHRI Research Presentation:* AHRI has contracted with GTI as their main contractor for the CSST bonding research. GTI provided a presentation on the current research project scope and initial results. Previously, Phase I research conducted under the National Fire Protection Foundation was completed. Phase 2 test objectives will address the NFPA Standards Council decision and the Phase I report findings. The primary focus will be on bonding effectiveness. A simulation model was developed and its validation is to be included. Testing simulates near lightning strikes and bonding performance. The goal is to complete the original scope of work by the end of 2012.

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- b. *Committee Discussions:* The NFPA 54 CSST Task Group met to consider the GTI presentation preliminary findings. They provided the following discussion item for full committee consideration:

The findings indicate a need to limit the jumper length to perhaps 100 ft. The findings indicate that the code's current 6 gauge bonding jumper is adequate.

Individual Committee member points:

- A benchmark may be needed, perhaps copper tubing bonded through the appliance grounding means. Then an equivalent level of protection could be determined for CSST.
  - The research does not point to a maximum length, only 100 ft as a simulation.
  - There is concern that the research may not have answered all of the NFPA Standards Council questions raised in their initial finding.
  - The researchers realize that their work is not complete. Additional data is needed prior to setting any code requirements.
  - What is safe enough? The NFGC has never been a lightning code and now finds itself addressing lightning.
  - The researchers reported that the jacket was removed to test for arching. Neither the simulations nor the tests include the jacket's influence on bonding and no conclusions to its effectiveness are made.
  - Responding to the NFPA Standards Council concerns is critical and the research must provide the technical basis for those answers.
  - NFPA has fire data for gas related lightning incidents that cover all piping materials and appliance connectors. There is no evidence that the data trend after CSST became widely used has changed. While CSST is the subject of this research the committee may wish to consider all gas piping systems and connectors. Canadian and European codes all require 6 gauge wire direct bonding.
  - GTI is a valid laboratory and their research should be considered adequate to address Standards Council concerns. Benchmarking CSST with copper and or steel may not be necessary. There is more evidence of CSST failures than copper (another thin wall piping material). The Phase I report laid out a research plan which did not include the need to test other piping materials.
  - The research is finally being provided to the committee which will provide a good basis to identify parameters for code revisions. It appears the first step would be for the committee to start with some limits on bonding length.
- c. *Code Requirements and Possible Revisions:* The committee reviewed the public input logs regarding CSST. A committee input was created to address current research findings to solicit public comments and input. There is some concern that additional research is necessary to demonstrate that the energy level simulated, and the test, represents a reasonable input level to judge acceptability. Industry is encouraged to provide justification that the level represents a reasonable expectation for survivability.

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Staff recommended that the ballot be held until 1/18/13 so it would include a written report.

9. Consideration of Public Input and Committee Input: The committee reviewed and took action on public input considering the advisory panel recommendations. First revision draft changes and Committee Input was approved for letter ballot.
10. New Business: A Bio Gas Task Group was formed to determine if the scope of the NFGC could be expanded to include piping systems and equipment designed for use with bio-gases. The NFGC Task Group members are Swiecicki (Chair), Caudle, Gress, and Holmes. NFPA staff will solicit additional members from appropriate NFPA technical committees and other standards organizations.
11. Adjourn: With business completed, the committee adjourned on October 18<sup>th</sup> at 12:07 p.m.

NFPA 54/ASC Z223 Attendance List:

Thomas Crane, Crane Engineering

Paul Cabot, AGA

Denise Beach, NFPA

Hugo Aguilar, IAPMO

David Berning, A.O. Smith (rep. AHRI)

Todd Buechler, AMC Fairmont Insurance Services

Dan Buuck, National Association of Homebuilders

S. Ron Caudle, Southern California Gas Company

Sidney Cavanaugh, Cavanaugh Consulting

Sharon Coates, Arkansas LP-Gas Board (rep. IFMA)

Alberto Fossa, MDJ, Assossoria & Engenharia Consultiva (rep NFPA Latin American Section)

K. Ronnie Frazier, Atmos Energy Corporation

Mike Gorham, Northwest Gas Company (rep. NPGA)

Gregg Gress, International Code Council

Steen Hagensen, ENERVEX

Peter Holmes, State of Maine

John Kory, CSA America, Inc.

Theodore Lemoff, T Lemoff Engineering

James Osterhaus, Railroad Commission of Texas

Andrea Papageorge, AGL Resources (rep. AGA)

Phillip Ribbs, PHR Consultants (rep. California State Pipe Trades Council)

Thomas Stroud, Hearth, Patio and Barbecue Association

Franklin Switzer, S-afe, Inc.

Stephen Yapchanyk, Consolidated Edison Company of NY (rep. AGA)

Alternates:

Stephen Abernathy, Piedmont Natural Gas Company, Inc. (rep. AGA)

Pennie Feehan, Pennie L. Feehan Consulting (rep. Copper Development Association)

John Scanlon, Rheem Manufacturing Company (rep. AHRI)

Bruce Swiecicki, NPGA

Matthew Wilbur, Crane Engineering

Guests:

Frank Stanonik, AHRI

Mitchell Guthrie, Rep. NFPA 780 Committee

Steven Dumas, NEPTCO Inc.

Larry Shelton, NEPTO Inc.

Guy Colonna, NFPA  
Chuck Keith, Crane Engineering  
Chris Ziolkowski, GTI  
Andrew Hammerschmidt, GTI  
Brian Bowman, Pro-Flex LLC  
Reggie Johnson, Alagasco  
Jim Ranfone, AGA  
Ryan Devine, M&G Duravent  
James Molloy, Centrotherm Ecosystems  
Price Grandy, Selkirk Corp  
David Edler, Ward Manufacturing  
Mark Harris, Gastite/Titeflex  
Dave Oehlers, Gastite/Titeflex  
Bob Torbin, Omega Flex  
Frank Volgstadt, Volgstadt & Associates Inc.  
Art Weirauch, Omega Flex



**DATE:** October 02, 2012

**SUBJECT:** Proposed 2013-2015 Meetings: ASC Z223/NFPA 54 Committee

The ASC Z223 and NFPA 54 committees meet jointly to maintain and develop the National Fuel Gas Code. For your planning purposes the National Fuel Gas Code Committee’s 2013-2015 preliminary meeting schedule is proposed as follows:

**2015 EDITION: COMMENTS DUE BY MAY 3, 2013**

**2013 MEETINGS:**

- Date: .....June 18-19, 2013 (Tuesday-Wednesday)
- Meeting Type: ....Full Committee
- Purpose:.....Review and take action on Public Comments
- Location .....To Be Determined
- Host: .....National Fire Protection Association

**2015 EDITION: PUBLISHED SEPTEMBER 2014**

**2014 MEETINGS:**

- Date: .....November 18-19, 2014 (Tuesday-Wednesday)
- Meeting Type: ....Full Committee
- Purpose:.....Complete Unfinished Business &Planning on 2018 Edition
- Location .....To Be Determined
- Host: .....American Gas Association

Timely meeting notices will be sent to you as each meeting date approaches. Meeting information will also be available on the AGA and NFPA websites. Please contact Paul Cabot with any questions or comments you may have at 202.824.7312 or pcabot@aga.org.