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NH DEPARTMENT OF SAFETY  
NH FIRE SAFETY

Code Amendment Proposal Petition

**NH Department of Safety**

Office of the State Fire Marshal  
Board of Fire Control  
33 Hazen Drive, Concord, NH 03305  
Phone: 603-223-4289 Fax: 603-223-4294  
www.nh.gov/safety/divisions/firesafety

EXHIBIT # RE-20-02-15

**PETITIONER INFORMATION**

Name:

Date:

Jonathan Sargeant

March 20, 2020

Representing:

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**PROPOSED CODE LANGUAGE**

This proposed code amendment (check one):

Code, Edition, and/or section affected:

- Amends (code, edition, section)
- Adopts a new code section (code, edition)
- Repeals (code, edition, section)

NFPA 54-15 Section 7.13
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You must provide language for review by the Board of Fire Control. Failure to provide language will invalidate the petition. Please use the following format to show additions and deletions from the code: Strike through = deleted text. Underline and bold = **New Text**

**Proposed Language**

<p><b><u>7.13.3 Arc-Resistant Jacketed CSST. CSST listed with an arc-resistant jacket or coating system in accordance with ANSI LC1/CST 6.26. Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing, shall be electrically continuous and bonded to an effective ground fault current path. Where any CSST component of a piping system does not have an arc-resistant jacket or coating system the bonding requirements of 7.13.2 shall apply. Arc-resistant jacketed CSST shall be considered to be bonded when it is connected to appliances that are connected to the appliance grounding conductor of the circuit supplying that appliance.</u></b></p>
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PETITION CRITERIA

Attach to this petition written responses to the following questions. If needed, include in the response an explanation as to why a question does not apply to your proposed code petition. The Board may reject an incomplete petition.

Questions:

1. Is your proposed code amendment necessary to correct any unforeseen or probable outcomes resulting from the application of a code section, and if so, why?
2. Is your proposed code amendment needed to protect the health, safety, welfare, comfort and/or security of occupants and the public, and if so, why?
3. Does your proposed code amendment correct inadequate application by a code section to a method, material, or design, and if so, why?
4. Is your proposed code amendment necessary to control unique geographic or climatic conditions within New Hampshire, and if so, why?
5. Is your proposed code amendment needed to eliminate conflicting, obsolete, or duplicative code provisions or standards among New Hampshire-adopted codes, statutes, or regulations, and if so, why?
6. Does your proposed code amendment provide for the use of unique or emerging technologies or promote advances in construction methods, devices, materials and techniques, and if so, how?
7. Does your proposed code amendment create any adverse fiscal impact or cost savings for the general public, the construction industry, local and state governments, or small businesses? If so, please describe the added or reduced cost of the proposed code amendment, the adverse fiscal impact or cost savings in relation to the current NH State Fire Code, and any standards of measure used to arrive at the result given.

PETITIONER'S SIGNATURE

Signature: *Jonathan B. Langner*

Date: 6/12/20

**Copyright Notice:** By signing this proposed code amendment petition, I understand and acknowledge that the work contained in this petition is original, or if not original, I have the right to copy the work. By signing this work, I understand that any rights I may have in this work, including any form of derivative works and compilations, are assigned to the N.H. Board of Fire Control. I also understand that I do not retain or acquire any rights once this work is used in an NH Board of Fire Control publication.

APPLICATION PROTECTION

The Office of the State Fire Marshal reviews all applications and will determine if the application is in conflict with any existing law or rule. The division will return any application found to be in conflict with any existing statute or rule along with the specific reasons for the returned application.

Not Approved:  Approved:  Approved with Modification:   
 Hearing Date: 7/15/2020 Voting Board: 7/15/2020  
 Chair's Signature: *Norman W. Skantzke* Date: 7/21/2020  
 Printed Name: Norman W. Skantzke  
 Fire Marshal's Signature: *Paul J. ...* Date: 7/21/2020  
 Printed Name: Paul J. ...  
 Commissioner's Signature: *Robert Quinn* Date: 8/1/2020  
 Printed Name: Robert Quinn

Questions:

1. Is your proposed code amendment necessary to correct any unforeseen or probable outcomes resulting from the application of a code section, and if so, why?

Yes. The proposed language was extracted from the 2018 edition of the NFPA 54 and was changed only to renumber from section 7.12 in the 2018 to section 7.13 in the 2015. The proposal revises the installation/bonding practices for arc-resistant CSST. The amended language in section 7.13.3 reflects the language currently adopted by the 2018 NFPA 54 and it is also consistent with the language in the 2018 International Fuel Gas Code and International Residential Code. This proposed change would bring New Hampshire installation practices for CSST into harmony with those adopted 28 other states including Massachusetts, New York, Rhode Island and Connecticut. These harmonized installation practices will go a long way towards reducing conflict and confusion among engineers and contractors who do business in the region designing and installing gas piping systems.

2. Is your proposed code amendment needed to protect the health, safety, welfare, comfort and/or security of occupants and the public, and if so, why?

No. This proposal does not address health, safety, welfare, comfort and/or security.

3. Does your proposed code amendment correct inadequate application by a code section to a method, material, or design, and if so, why?

Yes. Arc-resistant (black jacketed) CSST was developed as a safer and more effective alternative to traditional (yellow jacketed) CSST and its associated electrical bonding. CSST manufacturers use a conductive jacket material and/or multi-layered design to arrive at a more robust, arc-resistant, product. Four of the five CSST suppliers now produce an arc-resistant product. Two of the larger manufactures offer only arc-resistant CSST for sale in the United States. Along with this newer and safer product comes revised installation/bonding practices as reflected in Section 7.12.3 of the 2018 NFPA 54. The installation/bonding practices in NFPA 54-15 require unnecessary bonding of arc-resistant CSST. The language proposed herein is to correct that.

4. Is your proposed code amendment necessary to correct unique geographic or climatic conditions within New Hampshire, and if so, why?

No, this proposal has nothing to do with unique geographic or climatic conditions of New Hampshire.

5. Is your proposed code amendment needed to eliminate conflicting, obsolete, or duplicative code provisions or standards among New Hampshire-adopted codes, statutes, or regulations, and if so, why?

No, this proposal would harmonize code provisions in New Hampshire with those of neighboring states but the current language does not conflict with other codes, statutes, or regulations within the state of New Hampshire as far as I am aware.

6. 6. Does your proposed code amendment provide for the use of unique or emerging technologies or promote advances in construction methods, devices, materials and techniques, and if so, how?

Yes. Although the 2015 NFPA 54 does not prohibit the use of the newer, more robust, arc-resistant CSST, the 2015 NFPA 54 currently requires that all CSST be installed with the additional bond which is unnecessary for arc-resistant CSST. This proposed amendment, by not requiring the additional bond on arc-resistant CSST, incentivizes the industry to move to the newer, safer, product over non-arc-resistant CSST. In this way the proposed change does promote advances in construction materials.

7. 7. Does your proposed code amendment create any adverse fiscal impact or cost savings for the general public, the construction industry, local and state governments, or small businesses? If so, please describe the added or reduced cost of the proposed code amendment, the adverse fiscal impact or cost savings in relation to the current NH State Fire Code, and any standards of measure used to arrive at the result given.

Yes. The proposal would save between \$200 and \$500 per house (new installation or retrofit installation) by eliminating the extra bonding needed with non-arc-resistant CSST when installing arc-resistant CSST. This estimate includes elimination of bonding materials, electrical contractor and electrical inspection of CSST installations.