



Amy Beasley Cronin
Secretary, Standards Council

15 September 2009

To: Interested Parties

Subject:

Standards Council Decision (Final):	D#09-18
Standards Council Agenda Item:	SC#09-8-16-d
Date of Decision*:	6 August 2009
TIA No. 941 on NFPA 70, <i>National Electrical Code</i> [®] , 2008 edition	

Dear Interested Parties:

At its meeting of 4-6 August 2009, the Standards Council considered an appeal on the above referenced matter.

Attached is the final decision of the Standards Council on this matter.

Sincerely,

A handwritten signature in black ink that reads "Amy Beasley Cronin".

Amy Beasley Cronin
Secretary, NFPA Standards Council

- c: D. Berry, M. Brodoff, L. Fuller, M. Earley, J. O'Connor
Members, TC on Code-Making Panel 5 (NEC-P05)
Members, TCC on National Electrical Code (NEC-AAC)
Members, TC on Lightning Protection (LIG-AAA)
Members, TC on Natural Fuel Gas (NFG-AAA)
Members, NFPA Standards Council (AAD-AAA)
Individuals Providing Appeal Commentary

*NOTE: Participants in NFPA's codes and standards making process should know that limited review of this decision may be sought from the NFPA Board of Directors. For the rules describing the available review and the method for petitioning the Board for review, please consult section 1.7 of the NFPA Regulations Governing Committee Projects and the NFPA Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council. Since this Council decision is not "related to the issuance of a document" as referenced in 1.7.2 of the Regulations Governing Committee Projects, notice of the intent to file such a petition must be submitted to the Clerk of the Board of Directors within a reasonable time period.



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At its meeting of 4-6 August 2009, the Standard Council considered an appeal from Robert Torbin of Cutting Edge Solutions LLC, requesting the issuance of proposed Tentative Interim Amendment (TIA) No. 941 on the 2008 edition of NFPA 70[®], *National Electrical Code*[®] (NEC). The proposed TIA seeks to modify Section 250.104, concerning NEC provisions on the bonding of piping systems and exposed structural steel. Specifically, the TIA seeks to add a new provision in 250.104(B) concerning the bonding of corrugated stainless steel tubing (CSST). In material part, the provision would require as follows:

CSST. Corrugated stainless steel tubing gas piping systems shall be bonded by connection to a metallic piping segment or fitting, either outside or inside the building, between the individual gas meter and the first CSST fitting. The bonding jumper shall be sized in accordance with Table 250.66 based on the size of the service-entrance conductor or feeder supplying each occupancy and as permitted in 250.66(A), (B) and (C) but not smaller than 6 AWG copper (or equivalent).

In support of this TIA, the submitter, who is also the appellant here, has argued that the revision is the appropriate means of protecting CSST against damage that could be caused if the system is energized due to a lightning strike. He points out that a similar (though not identical) bonding provision has been added to the 2009 edition of NFPA 54, *National Fuel Gas Code*, and he suggests that a TIA is necessary for correlation and consistency between NFPA 54 and the NEC.

The procedural background is as follows. The appellant originally submitted the material that is the subject of this proposed TIA 941 to NEC Code-Making Panel 5 (Panel 5) as Proposal 5-251 in the Annual 2010 Report on Proposals. The Panel 5 rejected the proposal. The NEC Report on Comments meeting will occur in December 2009, and the period for the submittal of Public Comments is open until October 23, 2009. The Council notes that, apart from the task group activities discussed later in this opinion, the appellant or others who wish to pursue the CSST bonding requirements within the regular revision cycle of the NEC should submit Public Comments as they deem appropriate.

In addition to submitting a proposal within the regular NEC revision cycle, the appellant submitted proposed TIA 941. The TIA was balloted through Panel 5 and the NEC Technical Correlating Committee (TCC) in accordance with the NFPA *Regulations Governing Committee Projects*, to determine if it had the necessary three-fourths majority support on technical merit and emergency nature to establish a recommendation for

issuance. The ballot failed to achieve the necessary support of Panel 5 on technical merit but passed on emergency nature, and failed the TCC ballot with respect to both correlating merit and emergency nature. Where the ballot does not pass both the Panel 5 and TCC on merit and emergency nature, the default recommendation to the Council is to not issue the TIA.

The appeal requests that the Standards Council overturn the action that was yielded by the NFPA codes and standards development process and instead issue the TIA. On appeal, the Standards Council accords great respect and deference to the NFPA codes and standards development process. In conducting its review, the Council will overturn the result recommended through that process, only where a clear and substantial basis for doing so is demonstrated. The Council has reviewed the entire record concerning this matter and has considered all the arguments put forth in this appeal. In the view of the Council, this appeal does not present a clear and substantial basis on which to overturn the results recommended by the NFPA codes and standards development process. Accordingly, the Council has voted to deny the appeal and to not issue TIA 941.

The Council has determined that there is no basis for it to issue a TIA that has been soundly rejected by the responsible consensus committees. The record before it, however, reveals both jurisdictional and potential technical issues that may require further attention within the standards development process going forward. First, questions have been raised regarding whether the issue addressed by the TIA is properly within the scope of the NEC. In the balloting on the TIA and elsewhere in the record, it has been observed that the scope of the NEC is the practical safeguarding of persons and property from hazards arising “from the use of electricity,” see NEC at 90.1(A), and it has been suggested that a provision, such as the proposed TIA, addressed to the hazards arising from lightning rather than from human use of electricity, is not within the scope of the NEC.

Secondly, the Council notes that in addition to jurisdictional/scope concerns, the balloting on the TIA raised questions regarding whether the proposed bonding requirements for CSST have been adequately substantiated. Whether or not the NEC has lightning protection within its scope, Panel 5 has expertise on issues of grounding and bonding. Concerns have been raised by some panel members in the balloting and elsewhere as to whether the bonding requirements proposed for the NEC in the TIA and which, in similar form, are currently contained in NFPA 54 have been adequately substantiated. Although the Technical Committee on Lightning Protection was consulted, it was also stated that no correlation or input from Panel 5 was sought by the Technical Committee responsible for NFPA 54 when it considered and accepted the proposal for bonding of CSST now contained in NFPA 54.

The Council believes that there ought to be a review and study of both the jurisdictional/scope issues and the technical questions concerning bonding or other lightning-related technical issues affecting CSST in gas piping systems. The Council believes that these issues are deserving of study both for the purpose of assisting the Council in fulfilling its responsibilities to assign scopes and coordinate and oversee the activities of the various NFPA committee projects and also for the benefit of the technical

committees that have or should play a role in reviewing the technical issues relating to CSST.

To conduct this review, the Council is requesting that Council Member Farr appoint and chair a task group to report to the Council, made up of members from NEC Panel 5, the technical committees responsible for NFPA 54 and NFPA 780, and any other relevant technical committees. The task group is requested to provide the Council with a review and analysis of the jurisdictional and technical issues relating to lightning and CSST in gas piping systems, to identify and discuss any technical issues that need to be addressed, to identify potential research or data needs, and to identify which technical committee or committees should play a role in addressing the technical issues and what that role should be. The task group's report should include its recommendations as to steps that should be taken so that any issues can be further addressed, if necessary, within the standards development process.