

TO: Technical Committees on Automatic Sprinkler Systems

FROM: Linda Fuller

DATE: September 13, 2011

SUBJECT: Antifreeze

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I am transmitting to you herewith the following action of the Standards Council (August 8-11, 2011):

At its March 2011 meeting, the standards Council issued several TIAs relating to ongoing review of the use of antifreeze in sprinkler systems. The extensive background and activities leading up to the development and issuance of these TIAs is set forth in the Council's decision issuing the TIAs and in decisions and minute items cited in that decision. See Standards Council Decision 11-5 (SC #11-3-3-e, 11-3-4-e and 11-3-5-d, March 1, 2011). The TIAs were developed by the responsible technical committees and the Council emphasized in its decision issuing the TIAs that, while the Council had initially taken action to address the antifreeze questions pending further technical committee consideration, the technical issues concerning the content of NFPA codes and standards are generally for the responsible consensus-based technical committees to determine.

In issuing the TIAs, the Council stressed, in the following terms, that the sprinkler committees' consideration of issues related to antifreeze was not an end:

In voting to issue these TIAs, the Council stresses that the sprinkler committees' consideration of issues related to antifreeze is not at an end. The sprinkler standards are in the Annual 2012 revision cycle, and that the content of the new TIAs will be considered as Proposals during the process. The Fire Protection Research Foundation report discussed areas where future research might be needed, as, for example, in the area of commercial applications. It is anticipated that further research will be conducted and information developed that will aid the sprinkler committees in their continuing consideration of issues raised by the use of antifreeze in sprinkler systems.

To aid the work of the sprinkler committees, and for its own information, the Council requested the sprinkler committees, representatives of the relevant sprinkler industries, the Fire Protection Research Foundation and others with relevant information to provide reports to the Council at its August 2011 meeting "identifying research needs, planned or ongoing research, and any other activities or developments related to the use of antifreeze in sprinkler systems."

In response to the Council's request, the Council has received a single report from the Chair of the Technical Correlating Committee (TCC) on Sprinklers on potential research paths that may need to be taken as it pertains to antifreeze usage in sprinkler systems. The Council also heard an oral presentation from Executive Director of the Fire Protection Research Foundation on her efforts to explore potential research paths with potential funders. Disappointingly, the Council received no submissions from other interested parties. Nevertheless, it was never the Council's intention to itself evaluate or analyze the information that it was seeking. Rather it was attempting to assist the

interested parties in maintaining their focus on and commitment to the ongoing task of providing the responsible NFPA technical committees with research and data to support effective standards development. While no action of the Council is required at this time, the Council expects the interested parties will continue investigation and research aimed at ensuring the safety of freeze protection in sprinkler systems and the incorporation of such new information as may be developed into subsequent editions of the sprinkler standards.

As suggested above, it is not the Council's role to identify all of the gaps in research that may exist and it has not undertaken to evaluate or analyze all the information presented or to construct any research plan. While some of the research being discussed may be aimed at showing that the antifreeze limits are more stringent than necessary, attention should also be maintained on identifying any additional research needed to ensure the adequacy of all the current antifreeze limits. In this regard, and without suggesting that other avenues of research may also be advisable, the Council notes that the TCC Chair's report and from the previously submitted research reports prepared for the Fire Protection Research Foundation point to at least one gap that needs to be filled. Specifically, it appears that the data that has been generated in the recent research on residential sprinklers has been extrapolated to standard spray sprinklers (i.e., commercial sprinklers). Standard spray sprinklers have different characteristics than residential sprinklers and research appears to be necessary to verify that the extrapolation of the data obtained on residential sprinklers is either valid for standard spray sprinklers or needs adjustment.

The Council is requesting that interested parties report back to the Council on or about March, 2012. Council meeting on plans and progress toward filling the gap identified above as well as on other research activities that are being considered, planned or undertaken.

Council Member Roland Huggins recused himself from the vote on this issue.

- c: D. Berry, M. Brodoff, A. Cronin, M. Klaus, P. Foley, J. Goyette, E. Carroll
- TCC on Automatic Sprinkler Systems (AUT-AAC)
- TC on Residential Sprinkler Systems (AUT-RSS)
- TC on Sprinkler System Installation Criteria (AUT-SSI)
- TC on Inspection, Testing, and Maintenance of Water-Based Systems (INM-AAA)
- NFPA Standards Council
- Interested parties (individuals providing comments)