MEMORANDUM

TO: Joint Committee on Drinking Water Additives – System Components

FROM: Jon DeBoer, Chairperson

DATE: February 2, 2012

SUBJECT: Proposed revision to NSF/ANSI 61– *Drinking water system components – Health effects* (61i99r1).

Draft 1 of NSF/ANSI 61 issue 99 is being forwarded to the Joint Committee for balloting. Please review the changes proposed to these standards and **submit your ballot by February 23, 2012** via the NSF Online Workspace.

Purpose

The proposed revision is to specify the evaluation criterion for fire sprinklers and associated fittings that are used in piping systems intended to serve both drinking water and fire protection needs under section 4 of NSF/ANSI 61.

Background

In 2009, the DWA-SC Joint Committee created a task group to develop recommendations for the criterion to evaluate fire sprinkler system components used in multipurpose piping systems. At the 2010 annual DWA-SC JC meeting, the Committee voted unanimously in favor of balloting the proposed draft language recommended by the task group. Please see the attached reference documents, Issue Document # DWA 2010-16 and the 2010 DWA-SC JC meeting summary excerpt, for additional information.

If you have any questions about the technical content of the ballot, you may contact me in care of:

Chairperson, Joint Committee
c/o Monica Leslie
Joint Committee Secretariat
NSF International
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[Note – the changes are seen below using strikeout for removal of old text and gray highlights to show the suggested text. ONLY the highlighted text is within the scope of this ballot.

NSF/ANSI Standard
for Drinking Water System Components – Health Effects

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4 Pipes and related products

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4.2 Definitions

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4.2.x fire sprinkler: A fast response fire suppression device for dwelling units that automatically opens when heat activated, allowing the discharge of water onto a fire.

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4.7 Normalization of contaminant concentrations

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4.7.2 Products other than pipe

4.7.2.1 Products other than fire sprinklers

The SA_F shall be calculated from the assumed length of pipe corresponding to the segment of the system in which the product is used (e.g., 100 ft of pipe in the service line or 280 ft of pipe in the residence). The $V_{F(static)}$ component of the N1 term shall be the volume of water contained within the assumed length of pipe. For fittings, the actual inner diameter of the pipe used with the fittings shall be used to calculate both SA_F and $V_{F(static)}$. PVC and CPVC transition fittings with copper alloy inserts (except for copper alloy inserts intended for use with PEX tubing) and repair couplings are specfically excluded from this evaluation.

For PVC and CPVC transition fittings with copper alloy inserts (except for copper alloy inserts intended for use with PEX tubing) and repair couplings, the SA_F shall be the wetted surface area of a single product. The $V_{F(static)}$ component of the N1 term shall be the volume of water a single product contains when filled to capacity, except that $V_{F(static)}$ shall equal 1 L (0.26 gal) for all products that contain less than 1 L (0.26 gal) of water when filled to capacity.

Note: These products shall be evaluated in this manner because the materials (copper alloy or repair coupling material) will not repeat within the piping system. When a material does repeat within the system, it shall be evaulated as a pipe or fitting, as appropriate. PVC and CPVC transition fittings with a copper alloy insert intended for use with PEX tubing are excluded because the remainder of the PEX system may also be plumbed with copper alloy fittings. Thus, the copper alloy material would repeat throughout the PEX system.

4.7.2.2 Fire sprinklers for multipurpose plumbing systems

Fire sprinklers intended for use in multipurpose plumbing systems (serving both drinking water and fire protection needs) shall be evaluated for acceptance based upon a use assumption of one unit per 0.43 L. Fire sprinkler fittings shall be evaluated in accordance with 4.7.2.1.

Note 1 – The evaluation of fire sprinkler system components is only intended to apply to those used in "multipurpose plumbing systems". The evaluation of potential extractants from fire sprinkler components from non-drinking water systems is not addressed under this standard.

Note 2 – Fire sprinkler use assumption based on system design requirements in NAPF 13 D[1] Criterion of one unit per 0.43 L based on use in a network of ½" PEX piping and the volume of water contained in 12 feet of pipe. This assumes installation of fittings with three ports (minimum number) and four feet of pipe associated with each port (accounts for the one port on each side of an 8 foot pipe which is the minimum distance required between sprinklers).

Reason: Addition of the evaluation of sprinkler system components used in multipurpose piping systems per 2010 annual DWA-SC Joint Committee Meeting (December 2, 2010). Note – the footnote reference number will be revised to reflect the correct number at the time of publication.

[1] NFPA 13D. *Installation of Sprinkler Systems: One and Two Family Dwellings and Manufactured Homes, National Fire Protection Association, 2010.*