TO: Joint Committee on Drinking Water Additives – Treatment Chemicals

FROM: France Lemieux, Chair of the Joint Committee

DATE: February 22, 2024

SUBJECT: Proposed revision to NSF/ANSI/CAN 60: Drinking Water Treatment Chemicals – Health Effects (60i99r1)

Revision 1 of NSF/ANSI/CAN 60, issue 99 is being forwarded to the Joint Committee for consideration. Please review the proposal and **submit your ballot by March 14, 2024** via the NSF Online Workspace <https://standards.nsf.org/home>.

Please review all ballot materials. When adding comments, please include the section number applicable to your comment and add all comments under one comment number whenever possible. If you need additional space, please use the attached blank comment template in the reference documents and upload online via the browse function.

Purpose

The proposed revision will update the preparation method in Section 8.7.4.2.2 from Method G to Method F instead. This will also update the referenced section in Annex N-1 from N-1.3.8 to N-1.3.7.

Background

At the 2023 annual meeting of the Joint Committee on Drinking Water Additives – Treatment Chemicals it was brought to the group's attention that a typo appears under Section 8.7.4.2 of NSF 60, which describes the normalization options for sealants and grouts. The language in subsection 8.7.4.2.2 should be referring to Method F instead of Method G, which is not a functional preparation method for solid swelling materials as bentonite materials can hold up to 5x their dry mass in water weight. This appears to be an old error in the standard, most likely originating at the addition of fracking sand into NSF 60 (when Method G was added).

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

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c/o Amy Jump
Joint Committee Secretariat
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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI/CAN Standard
for Drinking Water Additives –

Drinking Water Treatment Chemicals – Health Effects

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8 Miscellaneous water supply products

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8.7 Normalization of contaminant concentrations

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8.7.4.2 Normalization options for sealants / grouts

The following options shall be selected based on the sample preparation and exposure method used.

8.7.4.2.1 For sealants or grouts, which have been exposed as a solid mass, the following equation shall be used to calculate the normalized ingredient and contaminant concentrations:

$$\text{laboratory concentration of ingredient or contaminant} \times \frac{SA_F}{SA_L} \times \frac{V_L}{3.1 \times 10^6\ \text{L}} = \text{normalized concentration of ingredient of contaminant}$$

Where:

SA_F = surface area of sealant / grout exposed in the field (assumed to be 11 m^2 [118 ft^2])
SA_L = surface area of sealant / grout exposed in the laboratory
V_L = volume of extraction water used in the laboratory

8.7.4.2.2 Ingredient and contaminant concentrations for solid swelling well sealants which have been prepared using Method ~~G~~ F (see Annex N-1, Section N-1.3.~~8~~7) shall be multiplied by the dilution factor required to reduce the analysis solution to a turbidity of 1 NTU.

8.7.4.2.3 For sealants / grouts that cannot be exposed in the laboratory as a solid mass, or for ingredients or contaminants for which an adequately sensitive analytical method is not available, the following alternate calculation procedure shall be used:

a) Calculate the mass (in mg) of the ingredient or contaminant in 583 L (154 gal) of sealant / grout based on the manufacturer's preparation instructions.

b) Divide this mass by the aquifer volume (3.1×10^6 L) to calculate the normalized exposure to the ingredient or contaminant.

8.7.5 Separation process chemicals

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Rationale: The referenced preparation method in this subsection is incorrectly shown as Method G, and should instead refer to Method F.