TO: Joint Committee on Drinking Water Treatment Units
FROM: Dr. Robert Powitz, Chair of the Joint Committee
DATE: June 25, 2020

SUBJECT: Proposed revision to NSF/ANSI 330 – Glossary of Drinking Water Treatment Unit Terminology (330i11r1)

Revision 1 of NSF/ANSI 330, issue 11 is being forwarded to the Joint Committee for consideration. Please review the proposal and submit your ballot by July 16, 2020 via the NSF Online Workspace <www.standards.nsf.org>.

Purpose

The proposed revision will add clarity and conformity to the definitions of soft water, hardness, and water softening.

Background

An issue paper was submitted that suggests while the definition of soft water under NSF/ANSI 330 is correct, the omissions in the definitions for hardness and water softening risk the propagation of a common misapprehension in the water treatment industry that water containing particulate calcium carbonate in suspension has the same characteristics as water containing calcium bicarbonate in solution. There is a common misapprehension widespread in the industry that hard water contains calcium carbonate and that soft water contains none, when actually the opposite could be the case.

Please see the original issue paper (DWTU-2020-11) under the referenced items for additional background information.

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

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3 Definitions

3.186.5 grains per gallon (GPG): A unit of concentration equal to 17.1 mg/L as calcium carbonate equivalence, usually used to express the hardness of water.

3.186.6 hardness: A measurement of the concentration of divalent and trivalent cations, primarily calcium and magnesium, in drinking water. Hardness is typically expressed as GPG or mg/L as calcium carbonate equivalent.

3.186.7 hardness leakage: (As used in NSF/ANSI 44) Hardness present in the effluent from a water softener.

3.186.20 soft water: (As used in NSF/ANSI 44) Water containing less than 1 GPG calcium carbonate equivalent of dissolved hardness.

3.186.21 water softening: The reduction or removal of dissolved hardness ions from water.

3.187 water softening: See water softener.

Rationale: These changes are proposed to ensure that the three relevant clauses are consistent and will help to eliminate confusion.