

Joint Committee on Drinking Water Additives – System Components

2/27/2024

Proposed revision to NSF/ANSI/CAN 61 – Drinking Water System Components – Health Effects (61i181r1)

Revision 1 of NSF/ANSI/CAN 61, issue 181 is being forwarded to the Joint Committee for consideration. Please review the proposal and **submit your ballot by March 19, 2024** via the NSF Online Workspace.

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 move definitions in Sections N-1.7.2 and N-1.8.2 to Section 2 of NSF/ANSI/CAN 61.

Background

As part of the effort of the DWA TG on 61 Reorganization, the TG is working to organize similar information into one location rather than scattered throughout the standard. An initial goal will be to remove duplicates without forcing major section renumbering by redirecting existing sections to a single location with the information.

The Supplementary Materials section below provides an example of the future NSF/ANSI/CAN 61 section outline. Once all the duplications have been resolved, a major restructuring effort will be submitted, which will impact section references (although the section scopes will remain the same).

In an earlier issue paper the TG recommended moving all the definitions throughout the individual sections of the standard to the general definition Section 2 including the following references:

- 4.2 (4.2.1 4.2.6)
- 5.2 (5.2.1 5.2.17)
- 6.2 (6.2.1 6.2.4)
- 7.2 (7.2.1 7.2.18)
- 8.2 (8.2.1 8.2.6)
- 9.2 (9.2.1 9.2.11)

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- N-1.7.2 (N-1.7.2.1 N-1.7.2.7)
- N-1.8.2 (N-1.8.2.1 N-1.8.2.5)

The ballot inadvertently omitted the definitions for Annex's N-1.7 (Analysis methods) and N-1.8 (Normalization).

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

France Lemieux, Chair

Joint Committee on Drinking Water Additives – System Components 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 System Components – Health Effects

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2 Definitions

Terms used in this standard that have a specific technical meaning are defined here.

- **2.X** identified compound with standard: A compound identification made based on the daily analysis (initial or continuing calibration) of an authentic standard of an analyte. Retention time and mass spectrum are used for qualitative determination of the analyte. A calibration curve is used for quantitative determination of the analyte.
- **2.X** identified compound without standard: A compound identification based on mass spectral matches between the analyte and mass spectral libraries (commercial or private), or on spectral interpretation by a qualified chemist, or both. The quantitative determination is made through direct correlation between the analyte response and the nearest internal standard response.
- **2.X** matrix spike: An aliquot of a sample matrix fortified with a known quantity of analyte.
- **2.X** method detection limit (MDL): As defined in 40 C.F.R. Part 136, Error! Bookmark not defined. Appendix B, the minimum concentration of a substance that can be measured and reported with 99% confidence that the substance concentration is greater than zero. The MDL is determined from analysis of a minimum of seven aliquots of standard (known quantity of analyte in reagent matrix) at concentrations that are in the range of the estimated detection limit.
- **2.X method validation**: Verification of an analytical procedure performed by determining the method detection limit (see Section N-1.7.2.4).
- **2.X multiple-installation products**: Products present in the drinking water system at regularly repeating intervals.
- 2.X multiple user service line products: Products used between the water main and multiple
- 2.X reporting limit (RL): The lowest concentration of analyte that can be reliably reported.
- **2.X** residential products: Products used in buildings.

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- **2.X** service line products: Products used from the water main to building plumbing systems.
- **2.X unknown**: An analyte for which an identification cannot be determined. Information on chemical class, functional group(s), and chemical structure may be determined by spectral interpretation.
- **2.X** water main (distribution) products: Products used in locations other than buildings or service lines.

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N-1.7.2 Definitions

See Section 2.

- **N-1.7.2.1** identified compound with standard: A compound identification made based on the daily analysis (initial or continuing calibration) of an authentic standard of an analyte. Retention time and mass spectrum are used for qualitative determination of the analyte. A calibration curve is used for quantitative determination of the analyte.
- N-1.7.2.2 identified compound without standard: A compound identification based on mass spectral matches between the analyte and mass spectral libraries (commercial or private), or on spectral interpretation by a qualified chemist, or both. The quantitative determination is made through direct correlation between the analyte response and the nearest internal standard response.
- N-1.7.2.3 matrix spike: An aliquot of a sample matrix fortified with a known quantity of analyte.
- N-1.7.2.4 method detection limit (MDL): As defined in 40 C.F.R. Part 136, Error! Bookmark not defined. Appendix B, the minimum concentration of a substance that can be measured and reported with 99% confidence that the substance concentration is greater than zero. The MDL is determined from analysis of a minimum of seven aliquots of standard (known quantity of analyte in reagent matrix) at concentrations that are in the range of the estimated detection limit.
- N-1.7.2.5 method validation: Verification of an analytical procedure performed by determining the method detection limit (see Section N-1.7.2.4).
- N-1.7.2.6 reporting limit (RL): The lowest concentration of analyte that can be reliably reported.
- N-1.7.2.7 unknown: An analyte for which an identification cannot be determined. Information on chemical class, functional group(s), and chemical structure may be determined by spectral interpretation.
- N-1.7.3 Metals analysis

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N-1.8.2 Definitions

See Section 2.

N-1.8.2.1 residential products: Products used in buildings.

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- N-1.8.2.2 service line products: Products used from the water main to building plumbing systems.
- N-1.8.2.3 multiple user service line products: Products used between the water main and multiple family residences or commercial buildings.
- N-1.8.2.4 water main (distribution) products: Products used in locations other than buildings or service lines.
- N-1.8.2.5 multiple-installation products: Products present in the drinking water system at regularly repeating intervals.
- N-1.8.3 Normalization factor (NF)

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Rationale: All definitions moved to one general definitions section (section 2) per recommendation by the DWA Task Group on 61 Reorganization.