Summary of Substantive Changes
between the 2011 and 2012 editions of
NSF/ANSI 61, "Drinking Water System Components — Health Effects"

Presented to the IAPMO Standards Review Committee on September 10, 2012

General: The changes to this standard may have an effect on currently listed products. The changes are:

- Incorporated the revisions for the evaluation of lead (formerly informative Annex F) into the normative text of the standard (Sections 9.5.1, B.8.9.3, and B.8.9.4 and Table D1)
- Expanded the scope of materials for which formulation information is no longer required (Sections 3.2 and 3.3)
- Added additional material types and the requirement for nitrosamine analysis to Table 3.1
- Added evaluation criterion for fire sprinklers (Section 4.7.2.1)
- Clarified the lab testing procedure for field-applied coatings and added a cure temperature tolerance requirement, and added requirements when using airless plural component systems (Section 5.5.2.2)
- Reduced the total allowable concentration (TAC) for lead from 15 µg/L to 5 µg/L and reduced the single product allowable concentration (SPAC) for lead from 1.5 µg/L to 0.5 µg/L (Table D1)
- Reduced the statistic criteria Q from 11 to 5 for all Section 9 devices other than supply stops, flexible plumbing connectors, and miscellaneous components; and from 11 to 3 for supply stops, flexible plumbing connectors, and miscellaneous components (Sections B.8.9.3 and B.8.9.4)

Section 3.2, Information and formulation requirements: Added the following text to Note 1, which expands the scope of materials for which complete formulation information is not required:
NOTE 1 – The complete formulation information may be omitted for a component material if the generic material type is contained in Table 3.1 and:
– if (1) used in a mechanical device or mechanical plumbing device and (2) the diluted surface area of the component material is less than or equal to 2.0 square inches per liter and (3) the material is not a coating, and (4) the component is not a process media.

Section 3.3, Identification of analytes: Added the following to clarify that material specific analysis is required for materials that are exempt from providing formulation information per Section 3.2 Note 1 as follows:
In instances where the complete formulation has not been obtained for a material that is less than or equal to 2.0 square inches and used in a component of a mechanical device or mechanical plumbing device as allowed through Note 1 of 3.2, testing shall include the material specific analyses in Table 3.1.

Table 3.1, Material-specific analyses: Added a nitrosamine analysis requirement for some of the materials, changed the material type header (Elastomer) to (Joining and Sealing), and added new material types to the table.

Section 4.7.2, Products other than pipe:
Section 4.7.2.1 Fire sprinklers for multipurpose plumbing systems: added the following evaluation criterion for fire sprinklers and associated fittings that are used in piping systems intended to serve both drinking water and fire protection:
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 4.7.2.2.

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 D13 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).

5.5.2.2 Field-applied paint and coating systems: clarified the coating manufacturer's instructions for lab testing, added the cure temperature tolerance of ± 4 ºC and added the requirement to operate airless plural component systems at the midpoint of the coating manufacturer's recommended pressure and temperature range as follows:
Field-applied paint & coating systems shall be applied in accordance with the detailed ~~manufacturer's published~~ use instructions (see 5.3.2) under the supervision of the testing laboratory. Products shall be applied to a glass slide when appropriate. Products requiring a reactive substrate shall be applied to the appropriate alternate substrate. Coating products shall be applied using application conditions as specified by the manufacturer in the detailed ~~product~~ use instructions, e.g., the highest recommended percentage of thinner, the shortest curing period between coats or layers, the maximum recommended film thickness per coat, and the shortest final curing period prior to immersion. Products shall be cured within ± 4 ºC of the specified cure temperature. For exothermic coatings with a maximum field use thickness in excess of 120 mil (3.0 mm), an additional evaluation at the manufacturer's minimum recommended field use thickness shall be conducted. The maximum dry film thickness per coat. When samples are prepared using an airless plural component system the system shall be operated at the midpoint of the coating manufacturer's recommended pressure and temperature range.

Section 9.5.1, Evaluation of lead: Changed the lead test statistic Q for kitchen faucet assemblies and endpoint devices other than commercial kitchen supply stops, flexible plumbing connectors, and miscellaneous components, from ~~*11 µg*~~ to *5 µg* and changed the lead test statistic Q for supply stops, flexible plumbing connectors, and miscellaneous components from ~~*11 µg*~~ to *3 µg*.

Annex B, Product/material evaluation:
Section B.8.9.3, Initial test statistic: The statistic criteria Q was reduced from 11 to 5 for all Section 9 devices other than supply stops, flexible plumbing connectors, and miscellaneous components; and from 11 to 3 for supply stops, flexible plumbing connectors, and miscellaneous components.
Section B.8.9.4, Retest statistic: The Retest statistic criteria R was reduced from 11 to 5 for all Section 9 devices other than supply stops, flexible plumbing connectors, and miscellaneous components; and from 11 to 3 for supply stops, flexible plumbing connectors, and miscellaneous components

Table B11, Normalization factors, assumptions, and examples pertaining to – residential and service line valves (including multiple users): The normalization example of a ½ in ball valve following exposure in a 1-L test assembly was revised.

Table D1 – U.S. Environmental Protection Agency and Health Canada NSF/ANSI 61 drinking water criteria: reduced the total allowable concentration (TAC) for lead from 15 µg/L to 5 µg/L and reduced the single product allowable concentration (SPAC) for lead from 1.5 µg/l to 0.5 µg/L