



**Summary of Substantive Changes
between the 2013 and the 2014 editions of
NSF/ANSI 61 “Drinking Water System Components - Health Effects”**

Presented to the IAPMO Standards Review Committee on December 8, 2014

General: General: The changes to this standard should not have an impact on currently listed products. The substantive changes are:

- Removed the exception to allow omission of the complete formulation of component materials that are listed in Table 3.1 and have less than 2.0 in² of diluted surface area (see Section 3.2)
- Removed the requirement to normalize PP transition fittings with copper alloy inserts and unions and added requirement to use the wetted surface area of a single product for SA_F (see Section 4.7.2.2)
- Changed the requirement for sample collection, for point-of-entry systems and system components requiring exposure under pressure, from a minimum 2 L sample to the unit volume (see Annex B.4.4.2)

Section 3.2 Information and formulation requirements: Removed the exception to allow omission of the complete formulation of component materials that are listed in Table 3.1 and have less than 2.0 sq. in of diluted surface area as follows:

The following information shall be obtained...

– complete formulation information (equal to 100.0%) for each water contact material. This shall include:

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:

– its diluted surface area in the application is less than or equal to 0.001 in²/L or 0.0001 in²/L for static or flowing conditions respectively; or

– if the material is in a high flow device exclusively used at public water treatment facilities. For the purposes of this section high flow devices are limited to chemical feeders, disinfectant generators (e.g. chlorine dioxide, hypochlorite, ozone and ultraviolet), electrodialysis technologies, microfiltration technologies, reverse osmosis and ultrafiltration technologies; or

– 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) (3) the component is not a process media.

If the product is to be considered compliant to a lead content standard, the lead content (percent by weight) and wetted surface area of each component that comes into contact with the direct flow of water under the normal operation of the product is required. Complete documentation shall be submitted in accordance with ~~the Annex G~~ (NSF/ANSI 372 – Drinking water system components – Lead content).



Section 4.7.2.2 Products other than fire sprinklers: Removed the requirement to normalize PP transition fittings with copper alloy inserts and unions and added requirement to use the wetted surface area of a single product for SA_F as follows:

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 and PP transition fittings with copper alloy inserts (except for copper alloy inserts intended for use with PEX tubing), unions and repair couplings are specifically excluded from this evaluation.

For PVC, ~~and~~ CPVC and PP transition fittings with copper alloy inserts (except for copper alloy inserts intended for use with PEX tubing), unions 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 evaluated as a pipe or fitting, as appropriate. PVC, ~~and~~ CPVC and PP 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.

Annex B, Product/material evaluation

Annex B.4.4.2, Point-of-entry systems and system components requiring exposure under pressure: Changed the requirement for sample collection from a minimum 2 L sample to the entire unit volume as follows:

B.4.4.2.3 At the conclusion of the third exposure period, the sample volume shall be collected. A minimum sample volume of 2 L shall be collected at each sample point. If the water holding volume of the product is greater than 2 L, The entire unit volume shall be collected in a suitable collection vessel, and subsamples for analysis obtained from this volume. If the water holding volume of the product is less than 2 L, sufficient products shall be exposed to provide the required 2 L volume of extractant water (up to a maximum of eight). When additional extraction water is needed to complete all analyses, additional samples shall be exposed.