Summary of Substantive Changes
between the 2020 and the 2021 edition of
NSF/ANSI 401 "Drinking water treatment units – Emerging compounds/incidental contaminants"

Presented to the IAPMO Standards Review Committee on November 07, 2022

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

- Updated the minimum 2-L sample requirement to a recommendation (see Section 4.4.3.2)
- Added product water dispensing outlets requirements for dispensing clearances and direction of discharge (see Section 6.4)
- Added NSF 42 compliance requirements for microplastics reduction claims (see Section 7.3.1)

Section 2, Normative references: The following references were added:
NSF/ANSI 42, Drinking Water Treatment Units – Aesthetic Effects
NSF/ANSI/CAN 600, Health Effects and Evaluation Criteria for Chemicals in Drinking Water

Section 4.4, Materials evaluation: Updated the minimum 2-L sample requirement to a recommendation as follows:

4.4.3, Exposure

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4.4.3.2 *The system or component(s) shall be refilled with the exposure water specified in Section 4.4.2 and maintained for 24 h at a temperature of 23 ± 2 °C (73 ± 3 °F). A ~~2-L~~ water sample shall then be collected in accordance with Section 4.4.3.3. The system or component(s) shall be flushed according to the manufacturer's instructions, refilled, and maintained for another 24 h at a temperature of 23 ± 2 °C (73 ± 3 °F). A second ~~2-L~~ water sample shall be collected in accordance with Section 4.4.3.3. The system or component(s) shall again be flushed according to the manufacturer's instructions, refilled, and maintained for a third period of 24 h at a temperature of 23 ± 2 °C (73 ± 3 °F). A third ~~2-L~~ water sample shall be collected in accordance with Section 4.4.3.3.*

4.4.3.3 *A ~~minimum~~ daily sample volume of 2-L ~~shall be collected at each sample point~~ collection volume is recommended to ensure there is sufficient volume in the composite sample to conduct the requested analyses. If the water-holding volume of the product is greater than 2 L, the entire volume shall be collected in a suitable collection vessel, and a 2-L subsample obtained from this volume. If the water-holding volume of the product is less than 2 L, sufficient samples shall be exposed to provide ~~the required 2-L volume of~~ at least 1/3 of the volume required for analysis of extractant water at each sample point. The maximum number of samples exposed shall not exceed sixteen with 125 mL of extractant water drawn from each sample. If the components with a water-holding volume that is less than 250 mL and is able to be identified as one that will only occur once in the flow path of dispensed treated water (such as diverters, faucets, reverse osmosis (RO) shutoff valves, or specialty components) then a volume of 250 mL shall be drawn from each sample using a maximum number of eight samples.*

Section 6.4, Product water dispensing outlets: Added product water dispensing outlets requirements for dispensing clearances and direction of discharge as follows:

6.4 Product water dispensing outlets

Product water dispensing outlets other than drinking fountain outlets, if provided, shall be designed, constructed, and located so that the discharge orifice is directed downward. The lower edge of the outlet shall be at an elevation not less than 51 mm (2 in) above the flood rim of the waste receptacle.

~~6.4.4~~ 6.4.1.4 *The lower edge of the drinking water outlet shall be at least ~~51~~25 mm (~~2~~1 in) above the flood rim of the waste receptacle.*

Section 7.3, Mechanical reduction claims: Added NSF 42 compliance requirements for microplastics reduction claims as follows:

7.3 Mechanical reduction claims

7.3.1 Microplastics reduction claim

Testing shall be performed in accordance with the test procedure under NSF/ANSI 42 for nominal particulate reduction (85%) claims for the reduction of nominal particulate Class I.

Table 8.2, “Performance data sheet reduction claims” was added.