



**Summary of Substantive Changes
between the 2018 and the 2021 editions of
NSF/ANSI 44 “Residential Cation Exchange Water Softeners”**

Presented to the IAPMO Standards Review Committee on September 12, 2022

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

- Updated the minimum 2-L sample requirement to a recommendation in Section 4.2.3 (see Sections 4.2.3.2, and 4.2.3.3)

Section 4, Materials: Updated the minimum 2-L sample requirement to a recommendation in Section 4.2.3 as follows:

4.2 Materials evaluation

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4.2.3 System exposure procedure

4.2.3.1 *The system or component(s) of a system shall be installed, flushed, and conditioned in accordance with the manufacturer's instructions using the exposure water specified in Section 4.2.2 at an initial inlet static pressure of 340 kPa (50 psig).*

4.2.3.2 *After flushing and conditioning in accordance with Section 4.2.3.1, the system or component(s) shall be refilled with exposure water as specified in Section 4.2.2 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 4.2.3.3. The product(s) shall then be flushed with five unit volumes and maintained for another 24 h at an ambient temperature of 23 ± 2 °C (73 ± 3 °F). A second ~~2-L~~ water sample shall be collected in accordance with Section 4.2.3.3. The product(s) shall then be flushed with five unit volumes, 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 4.2.3.3.*

4.2.3.3 *A ~~minimum-sample-volume-of daily~~ 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 products shall be exposed to provide ~~the required-2-L volume~~ at least 1/3 of the volume required for analysis volume of extractant water at each sample point. The maximum number of samples exposed shall not exceed 16 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, 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.*