



**Summary of Substantive Changes
between the 2017 and the 2018 editions of
NSF/ANSI 44 “Residential Cation Exchange Water Softeners”**

Presented to the IAPMO Standards Review Committee on March 09, 2020

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

- Added clarifying language to show components or functions covered by other NSF standards (see Sections 1.2, 8.1, 8.2, and 8.3)

Section 1.2, Scope: Added clarifying language to show components or functions covered by other NSF standards as follows:

1.2 Scope

The manual, auto-initiated, and demand-initiated regeneration (DIR) residential cation exchange water softeners addressed by this Standard are designed ~~to be used~~ for the ~~removal of hardness and the~~ reduction of specific ~~contaminants from substances that may be present in~~ drinking water ~~supplies~~ (public or private) considered to be microbiologically safe and of known quality. Systems covered under this standard are intended to reduce hardness affecting the aesthetic quality of water. The established health hazards, barium and radium, are optional performance claims addressed by this Standard. Systems with manufacturer claims that include components or functions covered under other NSF or NSF/ANSI Standards or Criteria shall conform to the applicable requirements therein. Systems covered by this Standard are not intended to be used with drinking water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

NOTE — Systems that are compliant with NSF/ANSI 55 Class A or other standards that cover technologies to treat microbiologically unsafe water (e.g., US EPA Guide Standard and Protocol for Testing Microbiological Water Purifiers or NSF P231) are examples of demonstrating adequate disinfection before or after the system.

Section 8, Instruction and information: Added clarifying language to show components or functions covered by other NSF standards as follows:

8.1 Installation, operation, and maintenance instructions

The manufacturer shall make available for each system complete, detailed instructions for the unit’s installation, initiation of service, and operation. Maintenance instructions shall be made available for the user if appropriate, or the manufacturer shall provide for the user information for obtaining such service as may be required.

This information shall include:

- *the name and mailing address of the manufacturer. If no network of authorized representatives is available, the telephone number and facsimile number of the manufacturer shall be provided;*
- *a statement noting the need for the system and installation to comply with state and local laws and regulations;*
- *a statement that the system is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system;*



NOTE — Systems that are compliant with NSF/ANSI 55 Class A or other standards that cover technologies to treat microbiologically unsafe water (e.g., US EPA Guide Standard and Protocol for Testing Microbiological Water Purifiers or NSF P231) are examples of demonstrating adequate disinfection before or after the system.

.....

8.2 Data plate

A permanent plate(s) or label(s) shall be affixed in a conspicuous location to the system and include the following:

- equipment name and primary functional description;*
- the model number and/or trade designation;*
- the name and mailing address of the manufacturer;*
- the minimum and maximum working pressure;*
- the minimum and maximum operating temperature;*
- electrical characteristics, if applicable, including: supply voltage, supply frequency, and power consumption;*
- for efficiency rated softeners:*
 - the rated efficiency of the softener, the salt dosage and maximum service flow rate at that efficiency, and the capacity at that salt dosage and maximum service flow rate; and*
 - a statement that the efficiency was determined in accordance with NSF/ANSI 44 and that the efficiency rating is only valid at the stated salt dosage and maximum service flow rate. Efficiency rating information may alternatively be on a conspicuous sticker separate from the data plate.*
 - a statement that the softener conforms to NSF/ANSI 44 for the specifically claimed performance; and*
 - a statement that the softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE 1 — Where the physical size of the system does not permit affixing the caution statement to the system, the statement shall be prominently displayed in the literature accompanying the system.

NOTE 2 — Systems that are compliant with NSF/ANSI 55 Class A or other standards that cover technologies to treat microbiologically unsafe water (e.g., US EPA Guide Standard and Protocol for Testing Microbiological Water Purifiers or NSF P231) are examples of demonstrating adequate disinfection before or after the system.

8.3 Performance data sheet

Information shall be required in pre-purchase sales literature acknowledging this Standard. Information of specific conformance thereunder shall be readily available to prospective purchasers. The following shall be included:

- a statement that the system conforms to NSF/ANSI 44 for the specific performance claims as verified and substantiated by test data;*
- for efficiency rated softeners:*
 - a statement that an efficiency rated water softener is a DIR softener, which also complies with specific performance specifications intended to minimize the amount of regenerant brine and water used in its operation;*
 - a statement that efficiency rated water softeners shall have a rated salt efficiency of not less than 3350 grains of total hardness exchange per pound of salt (based on NaCl equivalency) (477 g of total hardness exchange per kilogram of salt) and shall not deliver more salt or be operated at a sustained maximum service flow rate greater than its listed rating;*



- the rated efficiency of the softener, the salt dosage at that efficiency, the capacity at that salt dosage, and a statement that that the efficiency is only valid at the stated salt dosage; and
 - a statement that efficiency is measured by a laboratory test described in NSF/ANSI 44; that the test represents the maximum possible efficiency the system can achieve; that operational efficiency is the actual efficiency achieved after the system has been installed; and that operational efficiency is typically less than the efficiency due to individual application factors including water hardness, water usage, and other contaminants that reduce the softener's capacity;
 - the maximum service flow rate;
 - the pressure drop at the maximum service flow rate;
 - the rated softening capacity related to the amount of regenerant salt utilized;
 - minimum and maximum working pressures;
 - minimum and maximum operating temperatures;
 - a statement that the softener is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system;
- [NOTE — Systems that are compliant with NSF/ANSI 55 Class A or other standards that cover technologies to treat microbiologically unsafe water \(e.g., US EPA Guide Standard and Protocol for Testing Microbiological Water Purifiers](#)