

Industry Standards Development : NSF International & American National Standard (NSF/ANSI) develop joint standards that manage the existing as well as the development of new standards. These joint industry standards undergo stakeholder review from the industry prior to finalizing a standard. After which, Manufacturers can then present products to various approved NSF/ANSI testing agencies/facilities test products to these standards.

All such testing is voluntary and not mandated by federal law.

Some states do require State approval for products that make health claims and are sold to the **residential marketplace**. CA and IA currently require state certification and will automatically approve products that are tested to NSF/ANSI standards without further review but do require annual listing fees to maintain the state database. WI also accepts NSF/ANSI certified products but does not require annual listing. Manufacturers whom elect to have their products certified to these Industry Standards may select from several testing facilities including these most popular facilities: Depending on the testing facility that does the testing to these standards will determine the certified logo allowed on the data label, literature, etc.



Note: These certified Logo's can then be used to verify which facility did the testing. Regardless of the testing facility conducting the certification they all must adhere to the specific NSF/ANSI standard protocol to conduct the testing, review of required literature, manuals, web sites, annual plant audits, etc. **Unfortunately each one of the testing facilities maintain the certified products database for only products they tested. It is not permitted to simply include a certified logo from one of the testing agencies without providing the detailed tests performed.**

Overview of Standards for the drinking water industry are as follows:

NSF/ANSI standard 42 - Drinking water treatment units : Aesthetic Effects, examples include taste / odor ie, chlorine, chloramine, Mechanical Filtration ie. dirt/sediment. It can also include extraction testing and structural integrity testing within this standard.

NSF/ANSI standard 53 - Drinking water treatment units : Health Effects, The purpose of this Standard is to establish minimum requirements for materials, design and construction, **and performance of drinking water treatment systems** that are designed to reduce specific health-related contaminants in public or private water supplies. NSF/ANSI 53 specifies minimum product literature requirements that manufacturers must provide to authorized representatives and owners. **The protocols also establishes the flow rate and capacity of each unit tested to this standard and the challenged level for each contaminant.** *Capacity testing is typically 200% the rated capacity without end of life indicator and 120% when end of life indicator is sold with the system.* Each test is basically a pass/fail protocol! Contaminants tested under this standard typically have been classified by the an MCL (maximum contaminant limit) by the USEPA!.

NSF/ANSI standard 55 - Ultraviolet treatment systems use ultraviolet light to inactivate or kill bacteria, viruses and cysts in contaminated water (Class A systems) which have a dose of 40mJ/cm², or to reduce the amount of non-disease causing bacteria in disinfected drinking water (Class B) which have a dose of 16mJ/cm². Class A system conforms to NSF Standards 55 for the disinfection of microbiologically contaminated water.

NSF/ANSI standard 58 - Reverse Osmosis Drinking Water Units The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of point-of-use reverse osmosis drinking water treatment systems. NSF/ANSI 58 also specifies minimum product literature requirements that manufacturers must provide to authorized representatives and owners. Performance claims are listed as gallon per day of production for these membrane units. This is not a Health Effects standard and claims for health related contaminants should be tested to NSF/ANSI standard 53!

WQA/ASPE/ANSI standard S-803- Sustainable Drinking Water Treatment Systems, Encourage more strategic participation among product manufacturers for the advancement of sustainable products and business practices through improvements in the areas of product design, manufacture and production site management, distribution, disposal, etc.

NSF/ANSI standard 61-Drinking Water Treatment Components - Health Effects This Standard establishes minimum health effects requirements for the chemical contaminants and impurities that are indirectly imparted to drinking water from products, components, and materials used for treatment or transportation of drinking water. **Drinking water treatment systems can not bear the NSF/ANSI standard 61 logo without the added line "component only".**

NSF P231 - Microbiological Purifier - This standard establishes minimum reduction levels of bacteria(99.9999%) virus(99.99%) and cysts(99.9%). If the testing protocol includes high turbidity challenges one can use this for **protection before "boil order alerts" and temporary after these alerts for source water suspected to be potable** but not for conversion of waste water to drinking water. If high turbidity challenge was not conducted then a statement must be on the sales materials **"Do not use with water that is micro biologically unsafe or of unknown quality without adequate disinfection before or after the system"**.