



NSF/ANSI 419: A National Standard for Membrane Filtration

By Theresa Bellish

NSF/ANSI 419: Public Drinking Water Equipment Performance - Filtration, is an NSF/ANSI national standard for microfiltration (MF) and ultrafiltration (UF) membrane modules, as well as bag and cartridge filter systems. This standard establishes performance testing protocols that are consistent with the product-specific microbial challenge testing requirements for *Cryptosporidium* removal credits under the U.S. EPA Long-Term 2 Enhanced Surface Water Treatment Rule (LT2 Rule).

NSF International formerly hosted the U.S. EPA Environmental Technology Verification (ETV) Program Drinking Water Systems Center. Upon notification from U.S. EPA that the EPA ETV program would end in 2014, NSF elected to convert the existing ETV membrane protocol into an NSF/ANSI standard. The result was NSF/ANSI 419, which was published in January 2015.

NSF/ANSI 419 allows for a *Cryptosporidium* removal performance certification to accompany certification to NSF/ANSI 61, which covers health effects certification for wetted materials.

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With the NSF/ANSI 419 performance standard for membrane modules, states can be assured that test data generated following the standard's testing protocol is of high quality, and that a consensus test protocol was followed to generate the test data. States can also be assured that material and part changes are being monitored, and the manufacturing QC records are being periodically inspected. This NSF certification program requires annual auditing of the manufacturing facility. During this audit, the bill of materials on file is compared to the NSF wetted parts list to verify that no unauthorized material changes have been made. The audit also includes inspection of the manufacturing QC test records.

The NSF standards process is an

ideal format for the relatively new and dynamic field of membrane water treatment for LT2 Rule credits, and beyond, as states also consider removal credits for other microorganisms, including viruses. Utility and state agencies can verify product compliance with NSF/ANSI 419 through NSF's certification listings instead of spending days reviewing validation reports.

The NSF/ANSI standards are living documents that can be continuously improved to ensure they are current and technically sound. The NSF standards process provides a platform to address in a timely manner stakeholder comments and concerns, recent scientific advances, emerging pathogens and lessons learned from recent testing activities.



NSF Training and Education Services

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NSF International will provide free webinars for water utilities, state drinking water agencies and public health officials interested in updates on NSF/ANSI 60, NSF/ANSI 61 or other NSF standards. Content can be tailored to meet specific training goals including:

- > Certification of UV membranes to LT2 requirements
- > Pool chemical certification under NSF/ANSI 50
- > Concrete site mix evaluation program
- > Other issues of interest to specific agencies

This complimentary service is an important resource for many state and local health departments and water utilities that need information or training on NSF standards or product certifications. If you are interested in having NSF conduct a webinar or other training platform such as on-site classroom training, please contact:

Stan Hazan, Senior Director of Regulatory Affairs, at hazan@nsf.org.

