SOLUTIONS FOR A SUSTAINABLE WATER SUPPLY

NSF/ANSI Standard 350: the Standard and Certification for Water Reuse Treatment Systems

THE CHALLENGE

Water. It is used worldwide every day for drinking, bathing, washing and recreation. But only 1 percent of the world's water is available for human consumption. When combined with rising energy costs to transport wastewater for municipal treatment, increasing demand from growing populations, and increasing contaminant loading from domestic, agricultural and commercial usage, water quality and water scarcity are top public health and environmental concerns for consumers, water utilities and government officials.

A POSITIVE SOLUTION

Innovative product designers and manufacturers have begun developing technologies to treat and reuse water while keeping it onsite. This type of decentralized treatment and reuse offers a solution that is sustainable, efficient, and highly practical. But with any new technology or new processes comes uncertainty and skepticism. With water reuse, improper treatment prior to use can create public health issues.

Enter NSF/ANSI Standard 350: *Onsite Residential and Commercial Water Reuse Treatment Systems*, a revolutionary standard that sets clear, rigid, yet realistic guidelines for water reuse treatment systems. With a key focus on public health and appropriate water quality criteria for reuse applications, this is the first standard of its type for the comprehensive evaluation of water reuse technologies, spanning residential and commercial applications.

A TRUSTED LEADER

The standard was spearheaded by NSF International, a not-for-profit organization that has been developing standards, performing laboratory testing and certifying products for more than 65 years. With an impressive collaborator list which includes the World Health Organization (WHO), the US Environmental Protection Agency (USEPA), the National Environmental Health Association (NEHA), and the National Onsite Wastewater Recycling Association (NOWRA), NSF has a solid reputation for protecting public health, safety and the environment.

STANDARD OVERVIEW

Following four years in development, NSF/ANSI Standard 350 was published in 2011. Created in a consensus process with leading industry manufacturers, users and public health officials, the standard establishes minimum material, design, construction, and performance requirements for onsite, residential and commercial water treatment systems, treating combined wastewater or graywater only.

This innovative standard:

- Assures water is treated to safe level for specific reuse, non-potable applications like surface or subsurface irrigation, toilet/urinal flushing, decorative fountains, and the like
- Applies to any technology type capable of meeting the requirements, without limitations on system design
- Includes physical, chemical and microbiological reduction requirements to assure public health safety and suitable reuse

CERTIFICATION

NSF offers a program to certify treatment systems to NSF/ANSI Standard 350. NSF verifies that all design and performance requirements of the standard have been met, and confirms through testing that effluent reuse water meets stringent quality criteria for designated uses.

Benefits of NSF certification include:

- Independent validation of system performance by a respected third-party organization
- Proof of a manufacturer's voluntary effort to demonstrate the performance and reliability of their technology, including unannounced manufacturer audits, comprehensive test reports for distribution to customers, specifiers and public health officials
- Public listing in the NSF web-based directory of certified treatment systems
- Use of the respected NSF Certification Mark on certified systems and promotional materials

Certified to NSF/ANSI Standard 350

GREEN DRIVERS

As reuse/reclaimed water technologies increase in popularity, so too do the market forces encouraging them and defining the approval processes for them.

A few examples include:

- State, county and country legislation for water reuse systems, which can be seen from Australia to California, Japan to Florida
- Green building and plumbing codes
- Government specifications for sustainable products/ systems
- Green design and specification by architects and designers

MORE INFORMATION

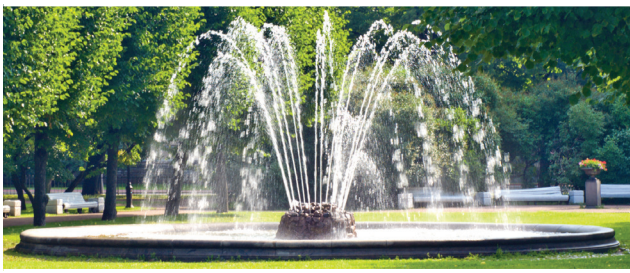
Call NSF International at +1 (734) 769-8010 or email americas@nsf.org (europe@nsf.org, asia@nsf.org, india@nsf.org) for more information.

"When the well is dry, we know the worth of water."

Benjamin Franklin, 1746

"All the water that will ever be is, right now."

National Geographic



A HISTORY OF ENVIRONMENTAL PROTECTION…A FUTURE IN SUSTAINABILITY

NSF International has been a critical component in the advancement of the onsite wastewater treatment industry since the introduction of NSF/ANSI Standard 40 for residential onsite wastewater treatment systems in the 1960s.

In addition to NSF/ANSI Standard 350 for water reuse treatment systems, the NSF Wastewater Program today includes certification to several standards: NSF/ANSI Standard 41 (non-liquid saturated systems), Standard 46 (components and devices), Standard 245 (nitrogen reduction), and Standard 360 (system field performance verification). Each standard focuses on protecting public health and the environment, and has kept pace with industry innovations.

As technologies and businesses make their operations more sustainable, NSF has expanded services to meet those demands. NSF Sustainability can help create value through standards development, sustainable products, systems and claims validation, and advisory services that match third-party expertise to the distinct competitive nature of your industry. More information is available at www.nsfsustainability.org.

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