

# THE TREATMENT ROOM



Water treatment specialist Judith Herschell discusses NSF certification, including key steps, associated costs and benefits.

## Municipal water treatment — the cost of entry

When cogitating about where to take their business, most equipment companies see the U.S. municipal market as the apple of the eye. There are a myriad reasons for this: market size, stringent regulations and vast infrastructure needs to name a few. When entering the North American municipal market, there are various costs of entry to consider. One area I often receive questions about is NSF International certification – the cost, the timeline, the value.

For over 50 years, NSF has certified equipment for municipal water treatment. Initially, the focus was on components. Over time, this grew to include certification of systems. The primary certifications are NSF61 and Public Drinking Water Equipment (PDWEP) certification programs.

### What certifications does NSF offer?

NSF61 evaluates the potential of leaching undesirable compounds into drinking water supplies and the associated health effects. PDWEP, a broadened version of the ETV program for membranes, includes other product types. It is a performance-based certification formulated in response to the requirements of the LT2ESWTR that evaluates rejection values. It applies to equipment used in public drinking water systems. For both certifications, all aspects of a supplier's process are held in strictest confidence.

### What do the processes entail?

NSF61 certification consists of seven steps: application, formulation and product information submittal, toxicology review, plant audit and sample collection, chemical testing, toxicology evaluation of results and certification. It applies to every water contact material, product and system.

The PDWEP process consists of five steps: application, product specific test plan and testing, facility inspection, certification/ listing and an annual audit. Both certifications include an unannounced annual site visit to certify that the products tested are consistent with normal production.

### What are the typical costs of certification?

NSF61 certification ranges between \$12,000 and \$16,000 for one production location with a family of products. The cost for PDWEP is about \$23,500, not including additional testing required by the California Department of Health Services (\$18,400) and the Australian Health Department (\$31,650). The annual renewal costs for each are \$8,000 to \$11,000, including an onsite visit. If both certifications are renewed, a savings can be realized as both audits can be done during one visit.

### How long does it take to become certified?

The timeline from the initial decision to proceed to receiving NSF61 certification is about 14 weeks. The timeline to complete PDWEP certification is approximately six months. This largely depends on the supplier providing the required information and product sample in a timely manner, and on being responsive.

### What are the benefits of certification?

Companies realize many benefits from NSF certification. For example, testing costs are reduced as states accept NSF's third-party testing. Validation of claims such as cryptosporidium inactivation and microbial/virus reduction can be provided to prospective customers. Market entry is more rapid. The supplier gains access to the municipal water market. Product acceptance is facilitated in the vast majority of U.S. states, Canadian provinces/territories and many international locales. There is assurance that products meet established quality control requirements. NSF certification demonstrates to customers that the supplier is committed to quality.

### When is retesting required?

Another common question relates to when retesting is required. If key components that affect performance are changed (pore size, seals, potting resin, etc.) an NSF engineer will evaluate that change and determine whether retesting is required. The product designs and possible modifications vary broadly, making it difficult to pinpoint specific changes and predetermine whether retesting is needed.

### Summary

In the early days of market entry, there was no standardized format for product validation. With experience, some products were found to reflect the supplier's claims. Others fell far short of customer expectations. NSF certifications bring confidence in the products.

From the supplier's point of view, the testing required by various end users is shortened or eliminated, saving time and money and hastening revenue generation – goals of every product entry. While the direct effect on the bottom line of NSF certification may, at times, be difficult to determine, it is clear that the reasonable cost of certification has a rapid return on investment for certified companies.

*Judith Herschell is president and CEO of Herschell Environmental. Her 20-year career includes extensive experience in the water treatment industry and engineered systems. She may be reached at [judith@h-env.com](mailto:judith@h-env.com).*