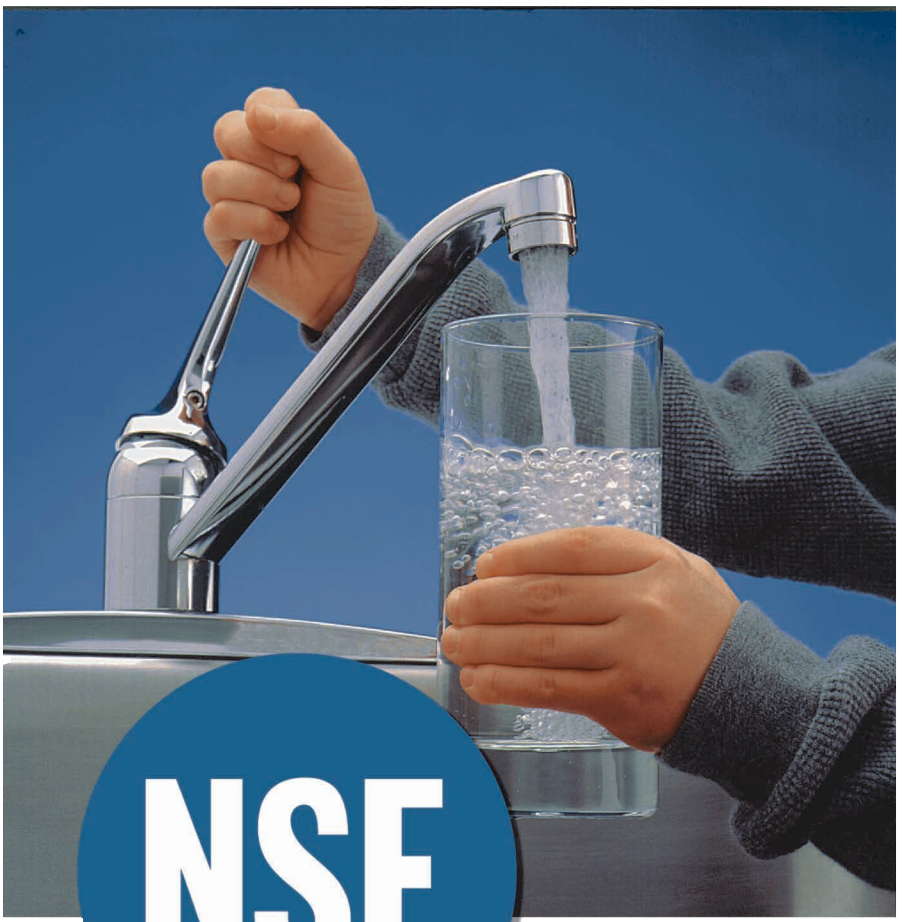


NSF®

The Public Health and Safety Company™

DRINKING WATER TREATMENT UNITS

A CERTIFICATION GUIDE

Welcome to NSF International and our global testing and certification program for drinking water treatment units. We are pleased to offer you services that will set your product apart in the marketplace. NSF is the premier service organization, offering the Mark of conformity recognized worldwide. For over 50 years NSF has developed and maintained consensus standards and certification programs in public health, safety and the environment. During this time, NSF has become the leading, independent, third party testing and certification organization.

The following is a simple, step-by-step guide to the certification process for drinking water treatment units. This guide will outline what information NSF needs to achieve your product certification quickly and efficiently. In addition, as a customer of NSF, you will have a dedicated and experienced project manager available to assist you throughout the process. They are available to answer any questions regarding NSF, the certification process, or other risk management service needs you may have.

CERTIFICATION PROCESS

Step One — Receiving an estimate of cost and time to achieve certification.

In order to understand the cost and time necessary in achieving certification, please complete the "Request for Cost Estimate" form found in the pocket. A completed example form is provided below.

An important consideration of certification is the number and type of reduction claims you would like to have certified. You can select from a list of many options. Your product can be certified for the reduction of one or multiple contaminants. Page 4 lists the available reduction claims.

REQUEST FOR COST ESTIMATE

What type of water treatment device are you looking to have NSF Certified?
- ❑ Component
- ☒ Carbon or Mechanical Water Filter
- ❑ Reverse Osmosis Unit
- ❑ Water Softener
- ❑ Ultraviolet Device
- ❑ Distillation Unit
- ❑ Other (please specify) _____

Where is the manufacturing facility located?
Plant #1 California
Additional Locations _____

Is there a specific flow rate that your product has?
☒ Yes ❑ No
If yes, please provide this flow rate: 0.5 gallons per minute

Does your product have a rated life expectancy or capacity?
☒ Yes ❑ No
If yes, please provide this capacity: 1,000 gallons capacity

What claims would you like to have evaluated on your water treatment device?
(Please refer to the tables on page 4 for reference.)
Chlorine, Taste and Odor, Particulate, Turbidity, VOC's and Lead

Please enclose copies of sales sheets, product literature, brochures, catalogue or other documentation in order to help us understand your product better.
Please send this information by mail, fax or e-mail to Craig Zechman in our New Client Services department. Craig will review this information to determine the cost and time needed to achieve NSF Certification of your product.

Craig Zechman
New Client Services
NSF International
789 N. Dixboro Road
Ann Arbor, MI 48105
E-mail: zechman@nsf.org
Phone: (734) 913-5720
Fax: (734) 827-7178

If you have a component to be certified, you will only be required to meet the material requirements and, if it is a pressure bearing component, then the structural integrity requirements need to be met.

Once you have received the estimate of cost and time to achieve certification, and are ready to proceed, please complete the "Application for Certification" form. You can find this form in the pocket of this manual.

Upon receipt of the completed application form, a project manager will promptly contact you regarding the next steps towards achieving NSF Certification. Throughout the process he or she will track your certification project and address all your questions and needs.

Step Two — Product Evaluation

Each of the NSF/ANSI drinking water treatment unit standards include four main sections of product evaluation: (Note: All four sections are appropriate for complete treatment systems. Components are required to meet materials evaluation only, and possibly structual integrity.)

- **Structural Integrity** - determines the systems ability to structurally withstand extended periods of use. Testing, as described in the standard, will include various pressure tests, depending on the type of product.
- **Material Evaluation** - includes a review of the formulations used to produce the materials in contact with the drinking water, and an extraction test of the system to verify no contaminants are introduced into the drinking water by the treatment system.
- **Contaminant Reduction Testing** - evaluates the system according to the methodology and criteria of the standard based upon the list of claims you have requested.

Through use of NSF's extensive expertise in testing, we are often able to bracket multiple products through the testing of one. This allows for the certification of many products without redundant testing. Your project manager will assist you in reviewing your products to determine if such opportunities exist, saving time and money.

• **Literature Review** - involves review and acceptance of all product literature. This includes the installation and operation manual, replacement element packaging, product data plate and the system performance data sheet.

Step Three Production Facility Audit

An audit of the production facility is necessary to review with you the manufacturing of your product, ensuring consistency with the specifications of the product certified. This is also an opportunity to further assist you with any questions you might have.

Step Four Certification

After the product(s) has met the requirements of the applicable standard(s) and the initial audit of the manufacturing process has been completed, your project manager will prepare the necessary documentation to certify your product(s).

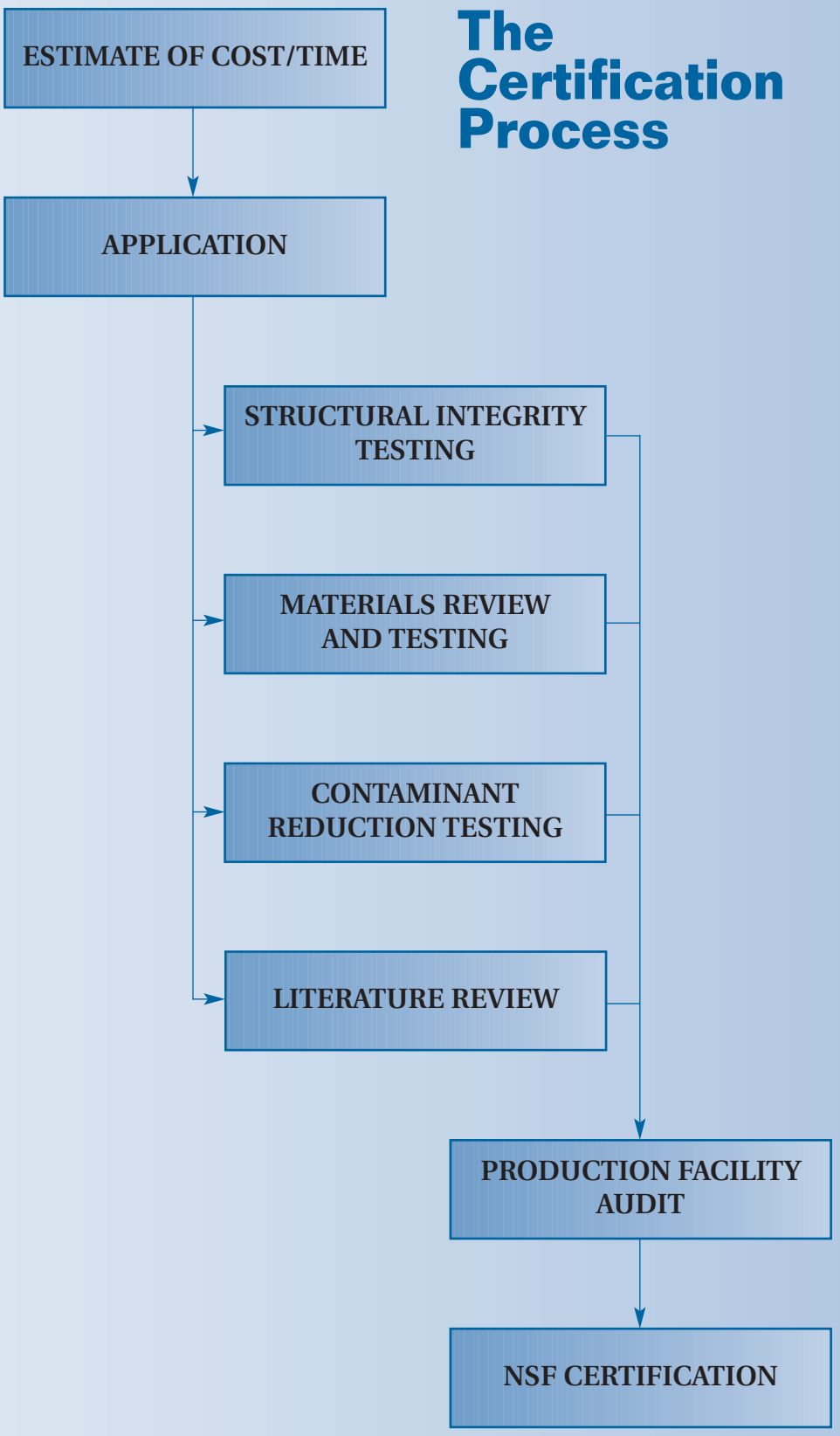
Products that have met all requirements are required to bear the NSF Mark on the product, as detailed in the NSF policies for proper use of the Mark. In addition, NSF provides a publicly available listing of all certified products. A complete directory is available on-line at the NSF web site at **www.nsf.org** and is published twice per year in hard copy. The web site and listing book include multiple search options to assist those seeking information on certified products.

Step Five Continued Certification

Following the initial certification, there will be an annual audit.

Additionally, there is a five-year recertification program where the products are tested to ensure they remain in compliance with the requirements of the applicable standard(s).

The Certification Process



PRODUCT STANDARDS

The Standards available today for evaluation and certification of drinking water treatment units include the following:

NSF/ANSI Standard 42: Drinking Water Treatment Units – Aesthetic Effects:

- Covers point-of-use and point-of-entry systems designed to reduce specific aesthetic, or non-health related contaminants (chlorine, taste and odor and particulates) that may be present in public or private drinking water.

NSF/ANSI Standard 53: Drinking Water Treatment Units - Health Effects:

- Covers point-of-use and point-of-entry systems designed to reduce specific health related contaminants (cryptosporidium, Giardia, lead, VOC's, MTBE, etc.) that may be present in public or private drinking water.

NSF/ANSI Standard 58: Reverse Osmosis Drinking Water Treatment Systems:

- Covers point-of-use reverse osmosis (RO) treatment systems . These systems typically consist of a pre-filter , RO membrane and post-filter. Standard 58 includes contaminant reduction claims commonly treated using RO, including fluoride, hexavalent and trivalent chromium, total dissolved solids, nitrates, etc. that may be present in public or private drinking water.

NSF/ANSI Standard 44: Cation Exchange Water Softeners:

- Covers residential cation exchange water softeners designed to reduce hardness from public or private water supplies. Additionally, this standard can verify the systems ability to reduce radium and barium.

NSF/ANSI Standard 55: Ultraviolet Microbiological Water Treatment Systems:

- Covers point-of-use and point-of-entry Ultraviolet systems and includes two optional classifications. . Class A systems (38,000 uw-sec/cm2) are designed to disinfect and/or remove microorganisms from contaminated water, including bacteria and viruses, to a safe level. Class B systems (16,000 uw-sec/cm2) are designed for supplemental bactericidal treatment of public drinking water or other drinking water, which has been deemed acceptable by a local health agency.

NSF/ANSI Standard 62: Drinking Water Distillation Systems:

- Covers distillation systems designed to reduce specific chemical contaminants (mercury, nitrate/nitrite, arsenic, etc.) and microorganisms from public and private water supplies.

AVAILABLE REDUCTION CLAIMS Please refer to the current published standards for the most up to date list of available claims.

INORGANIC CLAIMS
Arsenic
Barium
Cadmium
Chloride
Chlorine
Chloramine
Chromium
Copper
Fluoride
Hardness Reduction
Hydrogen Sulfide
Iron
Lead
Manganese
Mercury
Nitrate/Nitrite
Radium 226/228
Selenium
Sulfate
TDS
Zinc

ORGANIC CLAIMS
2,4,5-TP
2,4-D
Alachlor
Atrazine
Carbofuran
Chlordane
cis-1,2-dichloroethylene
Dibromochloropropane
Ethylene Dibromide
Heptachlor
Heptachlor Epoxide
Lindane
Methoxychlor
MTBE
Monochlorobenezene
o-dichlorobenzene
PCB
Phenol
Radon
Styrene
Toxaphene
Trichloroethylene
TTHM
VOC
Xylene

MECHANICAL CLAIMS
Asbestos
Particulate
Turbidity

MICROBIOLOGICAL CLAIMS
Cysts
Bacteria
Viruses
Bacteriostatic Effects

ADDITIONAL CLAIMS
Foaming Agent
pH Adjustment
Scale Control
Taste and Odor

COMPREHENSIVE RISK MANAGEMENT SERVICES

NSF International

Product Certification
- Food Service Equipment
- Water Distribution Systems
- Drinking Water Treatment Units
- Bottled Water
- Dietary Supplements
- Packaged Ice
- Pool, Spa & Hot Tub Equipment
- Residential Appliances
- Bakery Products

Product Registration
- Nonfood Compounds
- Good Manufacturing Practices

Standards Development
Regulatory Affairs
Engineering Research Services

NSF International Strategic Registrations, Ltd.

- ISO 9000 Registration
- QS-9000 Registration
- HACCP-9000® Registration
- ISO 14001 Registration
- ISO/TS 16949 Registration
- AS 9100 Registration

NSF-Cook & Thurber

- Process Based, Food Safety and Quality Audits
- Retail Food Safety Audits
- Animal Welfare Audits
- Food Safety Advisory Services
- Laboratory Testing Services

Center for Public Health Education

- Training Courses & Seminars
- International Conferences in Public Health

The Toxicology Group, LLC

- Risk Assessments
- Toxicology Reviews
- Product Stewardship

www.nsf.org

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