Drinking water distillation systems

NSF International Standard/ American National Standard

NSF/ANSI 62 – 2007

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NSF International Standard/
American National Standard
for Drinking Water Treatment Units –

Drinking water distillation systems

Standard Developer

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Contents

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Foreword[2]

The purpose of this Standard is to establish minimum requirements for the materials, design and construction, and performance of point-of-use and point-of-entry drinking water distillation systems that are designed to reduce specific chemical and microbiological contaminants in public or private water supplies. NSF/ANSI 62 also specifies minimum product literature requirements that manufacturers must provide to authorized representatives and consumers.

Water contact materials in drinking water treatment units listed under NSF/ANSI 42, 44, 53, 55, 58, and 62 are tested and evaluated under a separate protocol from NSF/ANSI 61, with criteria that were developed specifically for the intended end-use. NSF/ANSI 61 listing should not be additionally required for acceptance of these listed units for water contact application.

This edition of the Standard contains the following revisions:

Issue 14

The revision made in this issue updates the pass/fail criteria levels in Tables 1 and 2 for cyclohexanone, methyl ethyl ketone, carbon disulfide, diethyl phthalate, di-n-butyl phthalate, butyl benzyl phthalate, naphthalene, acetone, and 1,4-dioxane to match the levels in NSF/ANSI 61.

Issue 16

The revision made in this issue adds USEPA method 524.2 to Table 1 for the analysis of volatile organic compounds and carbon disulfide and to Table 2 for the analysis of acetone, cyclohexanone, tetrahydrofuran, and methyl ethyl ketone. It also adds USEPA method 525.2 to Table 2 for the analysis of phthalates and polynuclear aromatic hydrocarbons. This revision also includes language to ensure that when the GC/MS method (method 625) is used, an adequate analytical library has been developed.

Suggestions for improvement of this Standard are welcome. Comments should be sent to Chair, Joint Committee on Drinking Water Treatment Units, c/o NSF International, Standards Department, P. O. Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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for Drinking Water Treatment Units –

Drinking water distillation systems

1 General

1.1 Scope

Distillation systems covered by this Standard are systems designed to be used to reduce specific chemical contaminants as specified herein from public or private drinking water supplies. Systems designed to reduce microbiological contaminants from public or private water supplies are also covered under this Standard. Systems covered by this Standard are not intended for the treatment of water that is visually contaminated (turbid) or has an obvious contamination source, such as raw sewage, nor are they intended to convert wastewater to microbiologically potable water. This Standard establishes minimum requirements for point-of-use and point-of-entry drinking water distillation systems and for materials and components used in these systems.

1.2 Minimum requirements

This Standard establishes minimum requirements. Variation from these minimum requirements is permitted when they make systems equally resistant to corrosion, wear, and physical damage, or provide equivalent operation or performance of the system. Variations shall be approved prior to their use. Systems with components or functions covered under other existing NSF standards or criteria shall comply with the applicable requirements therein.

1.3 Alternate materials

Where specific materials are mentioned, other materials equally satisfactory from the standpoint of performance and sanitation shall be acceptable.

1.4 Reviews and revisions

This Standard shall be reviewed at least every five years. The review is to be conducted by representatives from industry, public health, and user groups of the NSF Joint Committee on Drinking Water Treatment Units.

2 Definitions

The following are definitions used in this document.

2.1 accessible: Fabricated to be exposed for cleaning and inspection using simple tools (e. g., screwdriver, pliers, open-end wrench).

2.1.1 readily accessible: Fabricated to be exposed for cleaning and inspection without using tools.

2.2 challenge water: The mixture of water and contaminants presented to the system for purposes of testing the system for contaminant reduction claims made under this Standard.

2.3 closed: Fabricated with no openings exceeding 0.8 mm ($^{1}/_{32}$ in).