Drinking water treatment units — Aesthetic effects

NSF International Standard/
American National Standard

NSF/ANSI 42 – 2005e

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

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Standard Developer
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Contents

Foreword[2]

The purpose of this Standard is to establish minimum requirements for materials, design, construction, and performance of drinking water treatment units that are designed to reduce specific aesthetic-related contaminants in public or private water supplies. This Standard specifies the minimum product literature and labeling information that a manufacturer must supply to authorized representatives and system owners. Lastly, the Standard provides minimum service-related obligations that the manufacturer must extend to system owners.

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 NSF/ANSI 42-2005e has the correct version of Table 18. In NSF/ANSI 42-2005, the greater than/equal to sign did not appear in the third column.

This edition of the Standard contains the following revisions:

– Section 4.2.3.5 has been revised to clarify how without media testing is to be conducted in complex scenarios involving media that is chemically bound to non-media materials.

– Tables 7, 8, 9, 10, 11, 12, and 13 have been revised to clarify influent challenge requirements for chemical reduction testing. This revision allows variation at individual influent challenge data points within the limits of the average influent challenge concentration specified in the standard plus analytical method variability, while requiring the overall average influent value throughout the course of the test to fall within the specified range for average influent concentration.

– Section 6.3 has been revised to provide requirements for drinking fountain type outlets on DWTU devices requiring water be prevented from returning to the outlet, a guard be in place to discourage hose connections or direct mouth contact with the outlet, and a gap be in place between the outlet and the flood rim of the waste receptacle.

– Language has been added in 1.3, 3, and 8 to provide revised requirements for conformance of commercial modular systems where multiple replacement cartridges may be interchangeably installed in to a manifold based upon the needs of the specific installation.

This Standard was developed by the NSF Joint Committee on Drinking Water Treatment Units using the consensus process described by the American National Standards Institute.

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, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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for Drinking Water Treatment Units —

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1 General

1.1 Purpose

It is the purpose of this Standard to establish minimum requirements for materials, design and construction, and performance of drinking water treatment systems that are designed to reduce specific aesthetic-related (non-health effects) contaminants in public or private water supplies. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners as well as the minimum service-related obligations that the manufacturer shall extend to system owners.

1.2 Scope

The point-of-use and point-of-entry systems addressed by this Standard are designed to be used for the reduction of specific substances that may be present in drinking water (public or private) considered to be microbiologically safe and of known quality. Systems covered under this Standard are intended to reduce substances affecting the aesthetic quality of the water or to add chemicals for scale control, or both. Substances may be soluble or particulate in nature at concentrations influencing public acceptance of the drinking water. It is recognized that a system may be effective in controlling one or more of these substances but is not required to control all. Systems with components or functions covered under other NSF or NSF/ANSI standards or criteria shall comply with those applicable requirements.

1.3 Alternate materials, designs, and construction

While specific materials, designs, and construction may be stipulated in this Standard, systems that incorporate alternate materials, designs, and construction may be acceptable when it is verified that such systems meet the applicable requirements stated herein.

1.4 Chemical and mechanical reduction performance claims

1.4.1 All NSF/ANSI 42 performance claims shall be verified and substantiated by test data generated under the requirements of NSF/ANSI 42.

1.4.2 When making performance claims for substances not specifically addressed in the scope of this Standard or for those substances not specifically addressed but falling under the scope of NSF/ANSI 42, those claims not specifically addressed in the Standard shall be so identified.