Residential wastewater treatment systems

NSF International Standard/ American National Standard

NSF/ANSI 40 – 2004

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NSF International Standard/
American National Standard
for Wastewater Technology —

Residential wastewater treatment systems

Standard Developer

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Contents

Foreword[2]

The purpose of this Standard is to establish minimum materials, design and construction, and performance testing and evaluation requirements for residential wastewater treatment systems. This Standard specifies minimum literature requirements to be supplied by manufacturers to authorized representatives and owners. Minimum service related obligations for manufacturers to extend to owners are also specified.

This edition of the Standard (NSF/ANSI 40 – 2004) includes the following changes:

- In Section 6.21, it has been clarified that the installation manual includes the requirements that only authorized representatives of the manufacturer can install the systems.

- Section 8 has been moved from the normative section of the standard to Annex A, because ANSI Standards development requirements do not allow the inclusion of commercial terms and conditions in ANSI standards. All subsequent sections have been renumbered.

- Section 8.2 (formerly Section 9.2) clarifies the necessary testing for influent and effluent samples further indicating that BOD_5 is the appropriate measurement for the influent waste strength.

- Section 9 (formerly 10) specifies the necessary requirements to be included in a final report to provide additional information valuable for system review and approval.

This Standard was developed by the NSF Joint Committee on Wastewater Technology 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 Wastewater Technology, c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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for Wastewater Treatment Systems —

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1 General

1.1 Purpose

The purpose of this Standard is to establish minimum materials, design and construction, and performance requirements for residential wastewater treatment systems. This standard also specifies the minimum literature that manufacturers shall supply to authorized representatives and owners as well as the minimum service-related obligations that manufacturers shall extend to owners.

1.2 Scope

This Standard contains minimum requirements for residential wastewater treatment systems having single, defined discharge points and rated treatment capacities between 1514 L/d (400 gal/d) and 5678 L/d (1500 gal/d). Management methods for the treated effluent discharged from residential wastewater treatment systems are not addressed by this Standard.

System components covered under other NSF or NSF/ANSI standards or criteria shall also comply with the requirements therein. This Standard shall in no way restrict new system designs, provided such designs meet the minimum specifications described herein.

1.3 Alternate materials, design, and construction

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

1.4 Performance classification

For the purpose of this Standard, systems are classified according to the chemical, biological, and physical characteristics of their effluents as determined by the performance testing and evaluations described herein.

All systems within a manufacturer's model series may be classified according to the performance testing and evaluation of the system with the smallest hydraulic capacity within the series. Performance testing and evaluation of larger systems within the series (having hydraulic treatment capacities within the scope of this Standard) may not be necessary provided that the dimensions, hydraulics, mixing and filtering capabilities, and other applicable design characteristics are proportionately equivalent to the evaluated system.

2 Normative references

The following documents contain provisions that, through reference in this text, constitute provisions of this Standard. At the time of publication, the indicated editions were valid. All standards are subject to revision, and