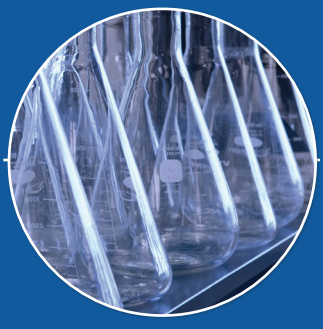
NSF International Standard /
American National Standard

NSF/ANSI 46 - 2016

Evaluation of Components and Devices Used in Wastewater Treatment Systems


NSF International, an independent, not-for-profit, non-governmental organization, is dedicated to being the leading global provider of public health and safety-based risk management solutions while serving the interests of all stakeholders.

This Standard is subject to revision.
Contact NSF to confirm this revision is current.

Users of this Standard may request clarifications and interpretations, or propose revisions by contacting:

Chair, Joint Committee on Wastewater Technology
c/o NSF International
789 North Dixboro Road, P.O. Box 130140
Ann Arbor, MI 48113-0140, USA
Phone: (734) 769-8010 Telex: 753215 NSF INTL
FAX: (734) 769-0109
E-mail: info@nsf.org
Web: http://www.nsf.org

NSF International Standard/
American National Standard
for Wastewater Technology —

Evaluation of components and devices used in wastewater treatment systems

Standard Developer
NSF International

NSF International Board of Directors

NSF International

Designated as an ANSI Standard
October 14, 2015

American National Standards Institute

Prepared by
The NSF Joint Committee on Wastewater Technology
The NSF Council of Public Health Consultants

Adoption by
NSF International

Adopted by
The NSF Board of Directors
November 1997

Revised May 2000
Revised May 2002
Revised October 2004
Revised September 2005
Revised January 2007
Addendum February 2007
Revised February 2009
Revised April 2010
Revised November 2010
Revised December 2012
Revised December 2013
Revised November 2014
Revised October 2015

Published by

NSF International
PO Box 130140, Ann Arbor, Michigan 48113-0140, USA

For ordering copies or for making inquiries with regard to this Standard, please reference the designation "NSF/ANSI 46-2015."

Printed in the United States of America.

Disclaimers[1]

NSF International (NSF), in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. The opinions and findings of NSF represent its professional judgment. NSF shall not be responsible to anyone for the use of or reliance upon this Standard by anyone. NSF shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Standard.

NSF Standards provide basic criteria to promote sanitation and protection of the public health. Provisions for mechanical and electrical safety have not been included in this Standard because governmental agencies or other national standards-setting organizations provide safety requirements.

Participation in NSF's Standards development activities by regulatory agency representatives (federal, local, state) shall not constitute their agency's endorsement of NSF or any of its Standards.

Preference is given to the use of performance criteria measurable by examination or testing in NSF Standards development when such performance criteria may reasonably be used in lieu of design, materials, or construction criteria.

The illustrations, if provided, are intended to assist in understanding their adjacent standard requirements. However, the illustrations may not include ***all*** requirements for a specific product or unit, nor do they show the only method of fabricating such arrangements. Such partial drawings shall not be used to justify improper or incomplete design and construction.

Unless otherwise referenced, the annexes are not considered an integral part of NSF Standards. The annexes are provided as general guidelines to the manufacturer, regulatory agency, user, or certifying organization.

[1] The information contained in this Disclaimer is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Disclaimer may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

This page is intentionally left blank.

Contents

Foreword[2]

The purpose of this Standard is to establish minimum materials, design and construction, and performance testing and evaluation requirements for components and devices used in wastewater treatment systems. Minimum literature requirements to be supplied by manufacturers to authorized representatives and owners are also specified.

This edition of the Standard (NSF/ANSI 46 – 2016) includes the following revisions:

Issue 28

This issue removed the bulleted items from Section 10.9, which have been moved to NSF/ANSI 418.

This Standard was developed by the NSF Joint Committee on Wastewater Technology using the consensus process described in the American National Standards Institute.

Suggestions for improvements of this Standard are welcome. This Standard is maintained on a Continuous Maintenance schedule and can be opened for comment at any time. Comments should be sent to Chair, Joint Committee on Wastewater Technology at standards@nsf.org, or c/o NSF International, Standards Department, P.O. Box 130140, Ann Arbor, Michigan 48113-0140, USA.

[2] The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

This page is intentionally left blank.

NSF/ANSI Standard
for Wastewater Technology –

Evaluation of components and devices used in wastewater treatment systems

1 General

1.1 Purpose

The purpose of this Standard is to establish minimum materials, design and construction, and performance requirements for components and devices used in the handling, treating, recycling, reusing, or disposal of wastewater. This Standard is intended to protect public health and the environment as well as to minimize nuisance factors.

1.2 Scope

This Standard is intended for use with components and devices not covered by other NSF wastewater standards. Components and devices covered by this Standard are intended for use with greywater or blackwater or both. Management methods for the end-products of these components and devices are not addressed in this Standard. This Standard shall in no way restrict new system designs, provided that such designs meet the minimum specifications described herein.

All devices and components meeting the scope of this Standard shall comply with all of the requirements described in 1 through 8. In addition, devices and components shall comply with the applicable subsequent section(s) contained in this Standard. Where subsequent sections of the Standard include requirements that overlap with those found in 1 through 8, the requirements of both sections shall be met unless otherwise specified in the requirements of the subsequent section.

1.3 Alternate materials, design, and construction

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

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 parties are encouraged to investigate the possibility of applying the recent editions of the standards indicated herein. The most recent published edition of the document shall be used for undated references.