

NSF/ANSI 53 – 2006
Addendum 1.0 – 2006

Drinking water treatment units — Health effects

**NSF International Standard/
American National Standard**

NSF/ANSI 53 – 2006
Addendum 1.0 – 2006



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 Drinking Water Treatment Units
c/o NSF International
789 North Dixboro Road, P.O. Box 130140
Ann Arbor, Michigan 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/ANSI 53 – 2006
Addendum 1.0 – 2006**

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

**Drinking water treatment units –
Health effects**

Standard Developer
NSF International

March 20, 2006
NSF International Board of Directors

Designated as an ANSI Standard
March 20, 2006
American National Standards Institute

Prepared by
The NSF Joint Committee on Drinking Water Treatment Units

Recommended for adoption by
The NSF Council of Public Health Consultants

Adopted by
The NSF Board of Directors
December 1981

Revised June 1982
Revised June 1988
Revised May 1990
Revised November 1992
Revised September 1993
Revised March 1994
Revised March 1996
Revised September 1996
Revised September 1997
Revised November 1998
Revised March 1999
Revised September 1999

Revised May 2000
Revised November 2000
Revised January 2001
Revised January 2002
Addendum 1.0 – 2002, June 2002
Addendum 2.0 – 2002, October 2002
Editorial Revision – November 2003
Revised July 2004
Addendum 1.0 – 2002e, August 2004
Revised February 2005
Revised January 2006
Addendum 1.0 – 2006, March 2006

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 53 – 2006, Addendum 1.0 – 2006."

Copyright 2006 NSF International

Previous editions © 2005, 2004, 2002, 2001, 2000, 1998, 1997, 1996, 1994, 1993, 1992, 1990, 1988, 1982, 1981

Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from NSF International.

Printed in the United States of America.

Disclaimers¹

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 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. As such, 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 blank.

Contents

Foreword	xiii
7 Mandatory testing for elective claims Elective performance claims – test methods.....	1
7.2 Chemical reduction claims	1
7.2.1 Organic chemical reduction testing.....	1
7.2.1.1 Organic chemical reduction claims	1
Table 7 – Chemical reduction requirements	2
7.2.2 Inorganic reduction testing.....	4
7.2.2.1 Inorganic reduction claims	4
Table 8 – Chemical reduction requirements	4
7.4 Metals reduction testing	5
7.4.1 Pentavalent arsenic reduction testing.....	5
Table 11 – Chemical reduction requirements	5
7.4.2 General metals reduction.....	6
7.4.2.1 General metals reduction testing	6
Table 12 – General metals reduction requirements.....	6
7.4.3 Lead reduction testing.....	8
Table 13 – Lead reduction requirements	8

This page is intentionally blank.

Foreword²

The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of drinking water treatment systems that are designed to reduce specific health-related contaminants in public or private water supplies. NSF/ANSI 53 specifies minimum product literature requirements that manufacturers must provide to authorized representatives and 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.

The revision to NSF/ANSI 53 – 2006, Addendum 1.0 consists of updates to tables 7, 8, 11, 12, and 13 clarifying the requirements for influent challenge requirements for chemical reduction testing.

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.

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. As such, 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 blank.

Revisions to NSF/ANSI 53– 2006 are shown in this addendum as ~~crossouts~~ for deletions and **highlights** for additions.

© 2006 NSF

NSF/ANSI 53 – 2006
Addendum 1.0 – 2006

NSF/ANSI Standard
for Drinking Water Treatment Units —

Drinking water treatment units —
Health effects

.
.
.

7 ~~Mandatory testing for elective claims~~ Elective performance claims – test methods

.
.
.

7.2 Chemical reduction claims

7.2.1 Organic chemical reduction testing

7.2.1.1 Organic chemical reduction claims

.
.
.