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Reverse Osmosis Drinking Water Treatment Systems



NSF/ANSI 58 - 2017

Reverse osmosis drinking water treatment systems

NSF International Standard/ American National Standard



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

Reverse osmosis drinking water treatment systems

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Contents

1	General	1 1 1
2	Normative references	1
3	Definitions	2
4	Materials 4.1 Materials in contact with drinking water 4.2 Membrane preservatives 4.3 Temperature resistance 4.4 Materials evaluation 4.5 Gas chromatography/mass spectroscopy (GC/MS) analysis	2 3 3 4
5	Structural performance	
6	Minimum performance requirements. 6.1 General. 6.2 Flow control. 6.3 Reject water connections. 6.4 Storage tank capacity. 6.5 Product water dispensing outlets. 6.6 Drinking fountain outlets. 6.7 Performance indication . 6.8 Hazards. 6.9 TDS reduction, recovery rating, and efficiency rating claims. 6.10	. 17 . 17 . 17 . 18 . 18 . 18 . 18 . 18 . 19 . 19 . 25
7	Elective performance claims – test methods 7.1 Chemical reduction claims 7.2 Mechanical filtration claims 7.3 Data transfer protocol (DTP)	. 28 . 40
8	Instructions and information	. 48 . 51
An	nex A Key elements of a certification program for drinking water treatment systems and components	58
An	nex B Example fact sections for pentavalent arsenic treatment systems	. 62
An	nex C	. 64
An	nex D Methods and procedures to minimize premature filter plugging	. 66
An	nex E Evaluation methods for systems with multiple technologies - treatment train	. 68
Inte	erpretations Annex	. 72

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Foreword²

The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of point-of-use reverse osmosis drinking water treatment systems. NSF/ANSI 58 also specifies minimum product literature requirements that manufacturers must provide to authorized representatives and owners. Minimum service related obligations for manufacturers to extend to system owners are also specified in this Standard.

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 74

Sampling procedures for the evaluations of the minimum performance and elective performance claims were revised to ensure consistency among labs.

Issue 78

Normative references were updated.

Issue 79

Evaluation criteria columns from tables 4.1, 4.2, and 4.3 were removed and now reference the evaluation criteria in Annex D, Table D.1 in NSF/ANSI 61.

Suggestions for improvement 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 Drinking Water Treatment Units at <u>standards@nsf.org</u>, or c/o NSF International, Standards Department, P.O. Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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NSF/ANSI Standard for Drinking Water Treatment Units —

Reverse osmosis drinking water treatment systems

1 General

1.1 Purpose

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

1.2 Scope

The point-of-use reverse osmosis drinking water treatment systems addressed by this Standard are designed to be used for the reduction of specific substances that may be present in drinking water supplies (public or private) considered to be microbiologically safe and of known quality (except that claims for the reduction of filterable cysts may be permitted). Systems covered by this Standard are intended for reduction of total dissolved solids (TDS) and other contaminants specified herein. Systems with components or functions covered under other NSF or NSF/ANSI Standards or Criteria shall conform to the applicable requirements therein.

1.3 Chemical and mechanical reduction performance claims

1.3.1 All NSF/ANSI 58 performance claims shall be verified and substantiated by test data generated under the requirements of NSF/ANSI 58.

1.3.2 When performance claims are made 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 58, claims not specifically addressed in the Standard shall be so identified.

1.4 Treatment train

A system that contains multiple, sequential treatment technologies for a performance claim under this Standard shall meet the applicable requirements as described in Annex E.

2 Normative references

The following documents contain provisions that constitute requirements 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 most recent editions of the standards indicated below. The most recent published edition of the document shall be used for undated references.