



*NSF International Standard /
American National Standard*

NSF/ANSI 50 - 2017

Equipment and Chemicals
for Swimming Pools, Spas,
Hot Tubs and Other
Recreational Water Facilities



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NSF/ANSI 50 – 2017

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**Equipment and chemicals
for Swimming Pools, Spas, Hot Tubs
and other Recreational Water Facilities**

Evaluation criteria for materials, components,
products, equipment, and systems for use at
recreational water facilities

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Foreword²

The purpose of this Standard is to establish minimum materials, design and construction, and performance requirements for components, products, equipment and systems, related to public and residential recreational water facility operation.

If a value for measurement is followed by a value in other units in parenthesis, the second value may be only approximate. The first stated value is the requirement.

This edition of the Standard contains the following revisions:

Issue 111

Language regarding UV disinfection was aligned with that in the MAHC.

Issue 116

Normative references were updated.

Issue 126

Language regarding shelf life testing for manufacturers of water quality testing devices was revised.

Issue 128

This issue updated the WQTD testing sections of the Standard.

Issue 129

Flow meter language was revised to reflect consideration of the devices being used in applications where specific gravity is greater than 1.0.

Issue 131

The title and scope were updated to include chemicals.

Issue 132

Specific criteria for metal contaminant limits were added.

Issue 134

Language adding clarity to effective size and uniformity coefficient calculations was incorporated.

Issue 135

Language regarding chemical feeders was revised.

Issue 136

This issue revised language regarding formulation testing in Annex A.

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Issue 137

Exposure assumptions were updated in Annex R.

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

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 Recreational Water Facilities at standards@nsf.org. or c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, MI 48113-0140, USA.

NSF/ANSI Standard

Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs, and other Recreational Water Facilities

Evaluation criteria for materials, components, products, equipment, and systems for use at recreational water facilities

1 General

1.1 Scope

This Standard covers materials, chemicals, components, products, equipment and systems, related to public and residential recreational water facility operation.

1.2 Variations in design and operation

A component varying in design and/or operation may qualify under this Standard. Appropriate tests and investigations shall indicate that the component performs as well as components conforming to this Standard. Such components shall meet the requirements for materials, finishes, and construction in this Standard.

1.3 Alternate materials

If specific materials are mentioned, other materials equally satisfactory from the standpoint of public health may be permitted.

1.4 Standard review

A complete review of this Standard shall be conducted at least every five years. These reviews shall be conducted by representatives from the industry, public health, and user groups, or agencies of the NSF Joint Committee on Recreational Water Facilities.

1.5 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 below. The most recent published edition of the document shall be used for undated references.

21 CFR Chapter 1. *Code of Federal Regulations*³

21 CFR Part 58, Subchapter A. *Code of Federal Regulations*³

³ USFDA. 5600 Fishers Lane, Rockville, MD 20857 <www.fda.gov>