



*NSF International Standard /
American National Standard*

NSF/ANSI 50 - 2013

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



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American National Standard

Equipment 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.

In this edition of NSF/ANSI 50 the following revisions were incorporated:

Issue 47 – Valves

An updated Section 7 eliminates “Multiport” and includes cyclic and burst pressure testing.

Issue 49 – Spas

This issue added requirements for factory engineered and portable spas and swim-spas to NSF/ANSI 50. The change enables comprehensive evaluation and testing of spas to assure users of product performance, quality, and safety. This information is in section 20.

Issue 75 – Ozone

The first addition is to address a system evaluation for ozone equipment. The second purpose is the addition of cryptosporidium validation of ozone equipment in the Recreational Water industry. These changes are in section 13 and Annex H.

Issue 78 – Fittings

This includes evaluation criteria for increasing the safety of water return fittings, perimeter grating and overflows, testing of pool deck drain fittings, and to update the normative references. These changes are shown in section 1, 2, and 21.

Issue 86 – Water Quality Testing Devices

This issue updates WQTD test methods and provided additional clarity to the language in annex O.

Issue 87 – Output Repeatability

The text replaces the current repeatability variance for each output measurement to a 10% limit on the average of the 5 repeatability measurements at both 50% and 100% output in Annex G, G.3.

Issue 88 – Non-integral Strainers

This issue revises section 7 concerning non-integral strainers, specifically requirements for installation instructions and data plates.

Issue 94 – Annex A

This change revises Annex A (informative) to Annex A (normative) as it was in err changed in a previous version.

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Pump Annex – Informational

This annex provides guidance on variable-Speed pumps recommendations for installation and operation.

Spa Annex – Informational

This annex details recommended water quality maintenance for spas.

Annex H

Section H.4.9, Quality Control, will be proposed for ballot to be removed in the next publication. You may disregard this section in the current version of NSF/ANSI 50.

Graphics

Several graphics were recreated with no updates to allow for ease of editing; other graphics that were revised have been updated to the format allowing editing.

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 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, 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>