



*NSF International Standard /  
American National Standard*

## NSF/ANSI 50 - 2016

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



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NSF/ANSI 50 – 2016

NSF International Standard/  
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

Standard Developer

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## Foreword<sup>2</sup>

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 editorial revisions and the following issues were incorporated:

**Issue 89 – UV Systems and Alerting** – to incorporate updated language and requirements into section 14.5.

**Issue 92 – Disinfection Efficacy** – to incorporate updated language and requirements for section 14.8 and Annex H.

**Issue 99 – Flow metering device** – to add language for testing, performance, labeling, and materials for flow meters to NSF/ANSI 50.

**Issue 102 – Ozone definitions** – to add definitions to support the ozone requirements in the Standard.

**Issue 112 – Ozone Annex H** – to update Annex H in regards to ozone production testing requirements, by removing the requirement of recording dew point and O<sub>2</sub> concentration of output of the air prep equipment.

**Issue 113 – Annex F** to update F.4.5 Acceptance criteria.

**Issue 114 – Section 14 error** – to replace output with operational protection as a required post-life test as protection was included in previous version of the standard.

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](mailto:standards@nsf.org). or c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, MI 48113-0140, USA.

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## 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*<sup>3</sup>

21 CFR Part 58, Subchapter A. *Code of Federal Regulations*<sup>3</sup>

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<sup>3</sup> USFDA, 5600 Fishers Lane, Rockville, MD 20857 <[www.fda.gov](http://www.fda.gov)>