

*American National Standard for
Aboveground/Onground Residential Swimming Pools*



*Approved
American National Standards Institute*

ANSI/NSPI-4 1999

**AMERICAN NATIONAL STANDARD
FOR
ABOVEGROUND/ONGROUND
RESIDENTIAL SWIMMING POOLS**

SPONSOR:

**NATIONAL SPA AND POOL INSTITUTE
2111 Eisenhower Avenue
Alexandria, VA 22314**

**Approved September 9, 1999
by
American National Standards Institute, Inc.**

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This standard was approved by the American National Standards Institute

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FOREWORD

(This Foreword is not a part of the American National Standard ANSI/NSPI-4 1999)

The objective of this standard is to provide recommended minimum guidelines for the design, equipment, installation, and use of aboveground/onground residential swimming pools. It is also intended to assist local jurisdictions and other regulatory bodies, where necessary, in the development and promulgation of aboveground/onground swimming pool criteria.

The words "safe" and "safety" are not absolutes. While the goal of this standard is to design and construct a safe, enjoyable product, it is recognized that risk factors cannot, as a practical matter, be reduced to zero in any human activity. This standard does not replace good judgment and personal responsibility. In permitting use of the pool by others, owners must consider the skill, attitude, training and experience of the expected user.

This standard was prepared by the Aboveground/Onground Pool Writing Committee and the Technical Committee of the National Spa & Pool Institute (NSPI) in accordance with the American National Standards Institute (ANSI) Procedures for the Development and Coordination of American National Standards utilizing the ANSI accredited canvass method. Consensus approval was achieved by ballot of the ANSI accredited canvass list.

As with any product, the specific recommendations for installation and use provided by the manufacturer should be carefully observed.

The consensus committee that approved this standard was balanced to ensure that individuals from competent and concerned interests have had an opportunity to participate. The proposed standard was made available for public review and comment, which provides an opportunity for additional public input from industry, academia, regulatory agencies and the public-at-large.

The following organizations recognized as having an interest in the standardization of residential aboveground/onground swimming pools were contacted prior to the approval of this standard. Inclusion in this list does not necessarily imply that the organization concurred with the submittal of the proposed standard to ANSI.

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Suggestions for improvement of this standard should be sent to the National Spa and Pool Institute, 2111 Eisenhower Avenue, Alexandria, VA 22314, Attention: Technical Department.

In accordance with American National Standards Institute (ANSI) procedures, this document will be reviewed periodically. The National Spa and Pool Institute welcomes your comments and suggestions, and continues to review all NSPI standards, which include:

- ANSI/NSPI-1 1991 Standard for Public Swimming Pools*
- ANSI/NSPI-2 1999 Standard for Public Spas*
- ANSI/NSPI-3 1999 Standard for Permanently Installed Residential Spas*
- ANSI/NSPI-4 1999 Standard for Aboveground/Onground Residential Swimming Pools*
- ANSI/NSPI-5 1995 Standard for Residential Inground Swimming Pools*
- ANSI/NSPI-6 1999 Standard for Residential Portable Spas*
- NSPI-7 1996 Workmanship Standards for Swimming Pools and Spas*
- ANSI/NSPI-8 1996 Model Barrier Code for Residential Swimming Pools, Spas and Hot Tubs*
- ANSI/NSPI/WWA-9 Public Pools in Recreation Facilities (In Progress)*
- ANSI/NSPI-10 Standard for Public Swim Spas (In Progress)*
- ANSI/NSPI-11 Standard for Residential Swim Spas (In Progress)*

Special thanks to the following whose contributions and dedication made this standard possible:

- Aymes, Don, Aquasport, Inc., Chairman
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- Crpean, Daniel, Vogue Pool Products
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STANDARD FOR ABOVEGROUND/ONGROUND RESIDENTIAL SWIMMING POOLS

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ARTICLE I

1.0 SCOPE

- 1.1 This standard describes certain criteria for the design, manufacturing, testing, care and use of aboveground/onground residential (Type-O) non-diving swimming pools and their components.
- 1.2 Aboveground/onground residential swimming pools are for swimming and wading only. No diving boards, slides or other equipment are to be added to an aboveground/onground pool that in any way indicates that an aboveground/onground pool may be used or intended for diving purposes.
- 1.3 This standard does not apply to public/commercial pools, permanently-installed residential pools, competitive pools, hot tubs, and other pools or spas such as those operated for medical treatment, physical therapy, or other special purposes.
- 1.4 Other standards are referenced in this standard for items not covered.

ARTICLE II

2.0 MATERIALS OF MANUFACTURE

- 2.1 The materials of components and accessories used for aboveground/onground residential pools shall be compatible with man and the environment in which they are installed. These materials shall be capable of fulfilling the design, installation and intended use requirements in this standard.
- 2.2 The selection of all materials and manufacturing processes for components and accessories to be used for aboveground/onground residential pools shall be such that all parts with external surfaces and edges that may come in contact with the user are assembled, arranged, and/or finished (deburred, polished, etc.) so that they will not constitute a cutting, pinching, puncturing or abrasion hazard.
- 2.3 All paints and finishes shall comply with the U.S. Code of Federal Regulations (CFR) 1303.1 et. Seq. (1997).

ARTICLE III

3.0 DIMENSIONAL DESIGN

- 3.1 **Perimeter Shape:** This standard is not intended to regulate the shape of the swimming pool other than to take into account the effect a given shape will

have on the safety of the occupants and the minimum required level of circulation will be maintained to ensure sanitation.

- 3.1.1 There shall be construction tolerances allowed on all dimensional designs. Overall length, width and depth may vary plus or minus two inches ($\pm 2''$) [± 5.08 cm], unless otherwise specified.
- 3.1.2 Aboveground/onground pool shall have a minimum water depth of thirty-six inches (36") [91.44 cm] and shall have a maximum water depth of forty-eight inches (48") [121.92 cm] at the wall.
- 3.2 **Floor Slopes:** Floor slopes shall be uniform and comply with Articles 3.2.1 through 3.2.4.
 - 3.2.1 The slope of the floor from the shallow wall towards the deep area shall not exceed one foot in seven feet (1':7') [30 cm:213 cm] to the point of the first slope change.
 - 3.2.2 The slope of the floor from the point of the first slope change towards the deepest point shall not exceed one foot in three feet (1':3') [30 cm:91 cm].
 - 3.2.3 The slope adjacent to the shallow area shall have a maximum slope of one foot in three feet (1':3') [30 cm:91 cm] and the slope adjacent to the side walls shall have a maximum slope of one foot in one foot (1':1') [30 cm:30 cm].
 - 3.2.4 The point of the first slope change shall be defined as the point at which the shallow area slope exceeds one foot in seven feet (1':7') and be at least six feet (6') [182.88 cm] from the shallow end wall of the pool.
- 3.3 **Water Depth:** Water depths at the shallow area of the swimming pool shall be a minimum of thirty-six inches (36") [91.44 cm] and a maximum of forty-eight inches (48") [121.92 cm].
- 3.4 **DIMENSIONALLY SPECIFIED CONTOURED DEEP AREA:** Pools designated Type-O with a manufactured dimensionally-specified contoured deep area and a water depth that exceeds sixty inches (60") shall be for swimming only.