ANSI/APSP/ICC-5 2011

American National Standard for
Residential Inground Swimming Pools

Includes Addenda A
Approved June 28, 2012
American National Standard for
Residential Inground Swimming Pools

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Approved June 28, 2012
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Residential Inground Swimming Pools
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Following approval by the APSP-5 Committee and the ANSI Standards Consensus Committee, and after public review, Addenda A was approved by the American National Standards Institute on June 28, 2012. The current edition of the revised standard was approved by ANSI on April 22, 2011.

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<td>7</td>
<td>6.1 Entry/exit. All pools shall have a means of entry/exit in the shallow area if water depth exceeds 24 in. (61.0 cm) at the shallowest point. The means of entry/exit shall be located on the shallow side of any first slope change. Pools having more than one shallow area, including but not limited to, center deep, play or sports pools, shall use the same means of entry/exit in all shallow areas. 6.1.1 A secondary means of entry/exit shall be provided in the deep area of the pool if the water depth exceeds 5 ft (152.4 cm). EXCEPTION: In pools where a deep end egress may present a potential hazard, handholds may be substituted for a means of egress.</td>
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American National Standard

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Foreword
This Foreword is not part of the American National Standard ANSI/APSP/ICC-5 2011. It is included for information only.

Following approval by the APSP-5 Committee and the ANSI Standards Consensus Committee, and after public review, Addenda A was approved by the American National Standards Institute on June 28, 2012. The original edition of this standard was approved by ANSI on April 22, 2011.

This standard is a revision of ANSI/APSP-5 2003, American National Standard for Residential Inground Swimming Pools.

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

The design recommendations and construction practices in this standard are based upon sound engineering principles, research and field experience which, when applied properly, contribute to the delivery and installation of a safe product.

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 the need for 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.

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

This standard was prepared by the APSP-5 Residential Inground Swimming Pool Standards Writing Committee of the Association of Pool & Spa Professionals (APSP) in accordance with 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 APSP-5 canvass list.

The canvass list 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 input from industry, academia, regulatory agencies, and the public at large.

The organizations listed on page iv, recognized as having an interest in the standardization of residential inground 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.

Consensus approval was achieved by a ballot of the ANSI Consensus Voting Body below and through an ANSI Public Review process. The ANSI Public Review provided an opportunity for additional input from industry, academia, regulatory agencies, safety experts, state code and health officials, and the public at large.

Suggestions for improvement of this standard should be sent to The Association of Pool and Spa Professionals, 2111 Eisenhower Avenue, Alexandria, VA 22314.

This standard is published in partnership with the International Code Council (ICC). ICC develops and publishes the International Building Code (IBC) and International Residential Code (IRC), which are adopted as the basis for the building codes used in most states and jurisdictions within the United States. Both the 2009 and 2012 IBC and IRC reference the ANSI/APSP-5 Standard (2003 version). Additionally, APSP and ICC have collaborated to develop the first comprehensive model swimming pool and spa code, known as the International Swimming Pool and Spa Code. This landmark document incorporates and references material from ANSI/APSP standards, such as ANSI/APSP-5 and ICC's model codes, to create a stand-alone code that is consistent with codes and standards from both organizations.

These codes and standards are the result of a joint effort between ICC and APSP as a service to both the swimming pool and spa community, and building code professionals. It is the hope of both organizations that they will lead to enhanced safety for pool and spa users around the world.
Organizations Represented

Consensus approval in accordance with ANSI procedures was achieved by ballot of the following APSP Standards Consensus Committee. 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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Autopilot, Inc. .................................. Bill Kent
Dal Pino Quality Pools, Inc. ................... Dick Dal Pino
Elegant Pool Design & Construction, Inc. .... Hugh Lynch
FreshWater Pools ............................... Mike Ribnikar
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JMK Plastering Inc. ............................. Jeff McGalliard
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San Juan Pools .................................. Ken Butler
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Aquatic Risk Management Corp. .............. Thomas Ebro
Con-Serv Associates, Inc. ...................... Wally James
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HEDJ Engineering, Inc. .......................... Herman Weinberg
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Wyoming Dept. of Agriculture ............... Neal Bloomenrader

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

ANSI/APSP-1 2003 Standard for Public Swimming Pools
ANSI/APSP-2 1999 Standard for Public Spas
ANSI/APSP-3 1999 Standard for Permanently Installed Residential Spas
ANSI/APSP-4 1999 Standard for Aboveground/Onground Residential Swimming Pools
ANSI/APSP-5 2011 Standard for Residential Inground Swimming Pools
ANSI/APSP-6 1999 Standard for Residential Portable Spas
ANSI/APSP-8 1996 Model Barrier Code for Residential Swimming Pools, Spas and Hot Tubs
ANSI/APSP-9 2005 Standard for Aquatic Recreation Facilities
ANSI/APSP-10 2009 Standard for Water Quality in Public Pools and Spas
ANSI/APSP-14 2011 Standard for Portable Electric Spa Energy Efficiency
APSP-15 Standard for Pool and Spa Energy Efficiency (Draft)
APSP 2005 Workmanship Standards for Swimming Pools and Spas

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Consultant ................................. Ray Cronise
Freshwater Pools .............................. Mike Ribnikar
JMK Plastering ................................. Jeff McGalliard
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San Juan Pools ................................. Ken Butler
The Pool & Spa Place ........................... John Migliaccio
Tropical Pools & Spas, Inc. ................. Adam Alstott

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NOTE: Solid vertical lines within the body of the standard indicate a technical change from the requirements of the 2003 edition. Deletion indicators in the form of an arrow (→) are provided in the margin where an entire section, paragraph, exception, or table has been deleted, or an item in a list of items or a table has been deleted.
Residential Inground Swimming Pools

1 Scope

1.1 Residential pools. This standard applies to permanently installed residential inground swimming pools intended for noncommercial use as a swimming pool by not more than three owner families and their guests and exceeding 24 in. (61 cm) in water depth.

EXCEPTION. Separate ponds, fountains, decorative water features, and reflecting pools or other similar bodies of water that are not intended for bathers are outside the scope of this standard.

1.2 Construction. This standard covers specifications for new construction and remodeling of residential inground swimming pools and includes design, equipment, operation, and installation.

1.3 Variation in designs. This standard permits variations in equipment, and design, including special features such as, but not limited to ledges, beach entries, waterfalls, fountains, bridges, tanning shelves, grottoes, seats, benches, in pool tables and bar stools, walls over 12 in. (305 mm) elevated or angled walls or beams, scuba pools, spas, lap pools, swim spas, spillways, slides, cones, walls, etc. to accommodate special needs consideration and advances in technology.

1.3.1 Special purpose pools. Examples of special purpose pools include, but are not limited to, training pools, island pools, scuba pools, polo pools, spas, and lap pools.

1.4 Important safety consideration. The variations in para. 1.3 shall consider safety for the intended use and the circulation of the swimming pool water.

1.5 Normative References. The following standards contain provisions that, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ACI 302.1R-04, Guide for Concrete Floor and Slab Construction
ANSI Z21.56-2006/CSA 4.7-2006, Gas fired pool heaters
ANSI/ASME-8 Model Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs
ANSI/NSF 50 (2009), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities
ANSI/ASHRAE 62.1-2007, Ventilation for acceptable indoor air quality
A112.1.2 (2004), Air gaps in plumbing systems
ASTM F1346-91 (2003), Standard performance specification for safety covers and labeling requirements for all covers for swimming pools, spas, and hot tubs
ASTM F2208 (2008), Standard safety specification for residential pool alarms
NFPA 70 (2011), Article 680 of the National Electrical Code (NEC®)
OSHA Standard 29, CFR1910.1000 Table Z-1
UL 1081 (2008), Standard for swimming pool pumps, filters, and chlorinators
UL 1261 (2001), Standard for electric water heaters for pools and tubs
ANSI/UL 559, Heat Pumps
U.S. Code of federal regulations, 16 CFR, Part 1303.1 et seq.