ANSI/APSP/ICC-8 2005 (R2013)

Model Barrier Code for
Residential Swimming Pools,
Spas and Hot Tubs

SECRETARIAT:

Association of Pool & Spa Professionals
2111 Eisenhower Avenue
Alexandria, VA 22314
703 838-0083
www.APSP.org

Approved April 2, 2013
American National Standards Institute
American National Standard

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standard developer. Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity.

Consensus requires that all views and objections be considered and that a concerted effort be made toward their resolution. The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved this standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard.

Important Notice about this Document

This voluntary standard has been developed under the published procedures of the American National Standards Institute (ANSI). The ANSI process brings together volunteers representing varied viewpoints and interests to achieve consensus.

APSP does not write the standards. Rather, APSP facilitates a forum for its members, and others interested in pool and spa design and safety, to develop standards through the consensus procedures of the American National Standards Institute (ANSI). While the APSP administers the process and establishes rules to promote fairness in the development of consensus, it does not independently test, evaluate, or verify the accuracy of any information or the soundness of any judgments contained in its codes and standards.

In issuing and making this document available, the APSP is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is the APSP undertaking to perform any duty owed by any person or entity to someone else. The APSP disclaims liability for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication of, use of, or reliance on this document.

The APSP has no power, nor does it undertake, to police or enforce compliance with the contents of this document. The APSP does not list, certify, test, or inspect products, designs, or installations for compliance with this document. Any certification or other statement of compliance with the requirements of this document shall not be attributable to the APSP. Any certification of products stating compliance with requirements of this document is the sole responsibility of the certifier or maker of the statement. The APSP, its members, and those participating in its activities do not accept any liability resulting from compliance or noncompliance with the provisions given herein, for any restrictions imposed on materials, or for the accuracy and completeness of the text.

Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstance. It is assumed and intended that spa users will exercise appropriate personal judgment and responsibility and that public spa owners and operators will create and enforce rules of behavior and warnings appropriate for their facility.

Copyright Notice

Copyright ©2013 by The Association of Pool & Spa Professionals, 2111 Eisenhower Avenue, Alexandria, VA 22314-4695. Printed in the United States of America. All rights reserved. No part of this book may be reproduced, stored in a retrieval system, transcribed or transmitted, in any form or by any means or method, electronic, mechanical, photocopy, recording, or otherwise, without advance written permission from the publisher: The Association of Pool & Spa Professionals, 2111 Eisenhower Avenue, Alexandria, VA 22314-4695.

“APSP,” “The Association of Pool & Spa Professionals,” and the APSP logo are trademarks of The Association of Pool & Spa Professionals.
Foreword

This Foreword is not part of the American National Standard ANSI/APSP/ICC-8 2005 (R2013). It is included for information only.

The ANSI/APSP/ICC-8 2005 (R2013), Model Barrier Code for Residential Swimming Pools, Spas and Hot Tubs, was approved by ANSI on April 2, 2013.

This standard is a reaffirmation of ANSI/APSP-8 2005, Model Barrier Code for Residential Swimming Pools, Spas and Hot Tubs.

The object of this standard is to provide recommended minimum guidelines for layers of protection for young children against the potential for drowning and near drowning in residential pools, spas, swim spas, portable spas and hot tubs by limiting or delaying their access to these aquatic vessels.

It is also intended to assist local jurisdictions and other regulatory bodies, where necessary in the development and promulgation of criteria for residential pools, spas, swim spas, portable spas and hot tubs.

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, spa, swim spa or portable spa 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-8 Model Barrier Code Writing Committee of the Association of Pool and Spa Professionals (APSP) in accordance with American National Standards Institute (ANSI) Essential Requirements: Due process requirements for American National Standards.

Consensus approval was achieved by a ballot of the balanced APSP Standards Consensus Committee 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. 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 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.

Producers
All American Custom Pools & Spas, Inc ... John Romano
Custom Pools, Inc .................. Scott Heusser
Gary Pools, Inc ..................... Leif Zars
Hayward Industries .................. John O’Hare
HornerXpress South Florida ....... Bill Kent
Master Spas Inc ........................ Nathan Coelho
Rosebrook Carefree Pools, Inc ...... John Bently
Trilogy Pools Div. of Viking Pools LCC, ...... Ted Baudendistel
S.R. Smith, LLC ........................ Bill Svendsen
Van Kirk & Sons, Inc .................. Don Cesarone

General Interest
American Hotel & Lodging Association .... Tony Mendez
American Red Cross .................. Connie Harvey
Chesapeake Aquatic Consultants, LLC .... Frank Goldstein
Con-Serv Associates Inc ............. Wally James
Conroe Independent School District, TX . Louis Sam Fruia
Don Witte Consultant ................ Don Witte
National Environmental Health Association (NEHA) .................. Florence Higgins
Walt Disney Parks and Resorts .......... Michael Beatty
World Waterpark Association ........ Rick Root
YMCA of the USA .................... Albert Tursi

Government/User
City of Martinsville, VA ............... Kris Bridges
City of Mount Dora, FL ............... Tom Allen
Fairfax County, VA .................. Marc Mordue
Green Oak Charter Township .......... Wayne Jewell
Illinois Department of Public Health ... Justin DeWitt
International Code Council ........... Lee Clifton
New Jersey Dept. of Community Affairs
Division of Codes and Standards ........ Thomas Pitcherello
North Carolina Building Office
Office of State Fire Marshall ........ Helen DiPietro
Oregon Public Health Division ........ Stephen Keifer
Washington State Dept. of Health ...... Gary Fraser
U.S. Consumer Product Safety Commission Mark Eilbert*  
*non-voting

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/ICC-4 a 2013 Standard for Aboveground/Onground Residential Swimming Pools
ANSI/APSP/ICC-6 2013 Standard for Residential Portable Spas and Swim Spas
ANSI/APSP/ICC-7 2013 Standard for Suction Entrapment Avoidance in Recreational Aquatic Vessels
ANSI/APSP-9 Standard for Aquatic Recreation Facilities (in progress)
ANSI/APSP-11 2009 Standard for Water Quality in Public Pools and Spas
ANSI/APSP/ICC-14 2011 Standard for Portable Electric Spa Energy Efficiency
APSP 2005 Workmanship Standards for Swimming Pools and Spas

APSP-8 Writing Committee
JMK Plastering, Inc .................. Jeff McGalliard,  
Chairman
Newport Controls LLC ................ Lee West
Pentair Water, Pool & Spa ............. Steve Barnes
Professional Pool Solutions, LCC ...... Maria Bella
Swim, Inc .......................... Dan Johnson
Witte & Associates .................. Don Witte
Zodiac Pool Systems ................ Shajee Siddiqui

APSP Staff
Bernice Crenshaw, Director, Technical and Standards
Carvin DiGiovanni, Senior Director, Technical and Standards
## Contents

<table>
<thead>
<tr>
<th>Sections</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>American National Standard</td>
<td>ii</td>
</tr>
<tr>
<td>Foreword</td>
<td>iii</td>
</tr>
<tr>
<td>1 Scope</td>
<td>1</td>
</tr>
<tr>
<td>2 Normative References</td>
<td>1</td>
</tr>
<tr>
<td>3 Layers of protection</td>
<td>1</td>
</tr>
<tr>
<td>4 Barriers</td>
<td>1</td>
</tr>
<tr>
<td>5 Supplements to barriers</td>
<td>2</td>
</tr>
<tr>
<td>6 Picket/ornamental fence</td>
<td>2</td>
</tr>
<tr>
<td>7 Chain link fence</td>
<td>2</td>
</tr>
<tr>
<td>8 Welded wire fence</td>
<td>2</td>
</tr>
<tr>
<td>9 Mesh restraining barrier/fence</td>
<td>2</td>
</tr>
<tr>
<td>10 Pedestrian access gates</td>
<td>3</td>
</tr>
<tr>
<td>11 Aboveground/onground pools</td>
<td>3</td>
</tr>
<tr>
<td>12 Wall of a building with four-sided fencing as a barrier</td>
<td>4</td>
</tr>
<tr>
<td>13 Screen enclosures</td>
<td>4</td>
</tr>
<tr>
<td>14 Covers</td>
<td>4</td>
</tr>
<tr>
<td>15 Natural topography</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Appendices</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Examples of barriers and fences</td>
<td>A-1</td>
</tr>
<tr>
<td>B Layers of Protection</td>
<td>A-2</td>
</tr>
<tr>
<td>C Suction Entrapment Warning</td>
<td>A-4</td>
</tr>
<tr>
<td>D Sources of Material</td>
<td>A-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Figures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Example of mesh restraining barrier/fence</td>
<td>A-1</td>
</tr>
<tr>
<td>2 Example of chain link fence</td>
<td>A-1</td>
</tr>
<tr>
<td>3 Example of picket/ornamental fence</td>
<td>A-1</td>
</tr>
<tr>
<td>4 Example of metal fence</td>
<td>A-1</td>
</tr>
<tr>
<td>5 Example of release mechanism.</td>
<td>A-1</td>
</tr>
<tr>
<td>6 APSP safety brochure Layers of Protection</td>
<td>A-2</td>
</tr>
</tbody>
</table>
Model Barrier Code for Residential Swimming Pools, Spas and Hot Tubs

1 Scope and purpose

1.1 Scope. These requirements establish layers of protection for young children against the potential for drowning and near drowning in residential swimming pools, spas, and hot tubs by limiting or delaying their access to swimming pools, spas, and hot tubs.

1.2 Purpose

1.2.1 The objective of these requirements is to establish provisions that address supervision, the foremost deterrent to unauthorized access to a pool, spa, or hot tub, and to prevent potential accidental drowning, both at times when a pool or hot tub is in use, and at times when it is not in use.

1.2.2 Additionally, in the event of a lapse in adult supervision, and particularly for the protection of children in the most at-risk age group (less than five years of age), who cannot yet appreciate or be instructed as to the risk of drowning, supplemental layers of protection are established. The supplemental layers of protection limit, detect, or delay access to an outdoor pool, spa, or hot tub from the surrounding area, and they limit, detect, or delay access to an indoor pool, spa, or hot tub from within the building where the walls of the building are the barrier, or part of the barrier.

2 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.

ASTM F1346-91 (2010), Standard performance specification for safety covers and labeling requirements for all covers for swimming pools, spas and hot tubs
ASTM F2208-08, Standard specification for pool alarms
UL 2017 (2008), Standard for general-purpose signaling devices and systems

3 Layers of protection

Every person in possession of land as owner, lessee, tenant, or licensee, upon which a residential swimming pool, spa, or hot tub is installed on or after the effective date of this code, shall comply with the following requirements.

IMPORTANT NOTE: Layers of Protection means that in addition to supervision, the pool, spa or hot tub is equipped with one or more devices to delay a child’s unsupervised access, or warn of the child’s presence as described in the options in Sections 4–15. (See also Appendix B: Layers of Protection.).

Constant adult supervision is the primary layer of protection. (See Section 1.2, Purpose).

3.1 Adult supervision. A person supervising children at a swimming pool shall meet the following requirements:

- A person of reasonable intelligence, ability, and knowledge;
- A person who is proficient in swimming;
- A person who shall be in the immediate vicinity of the pool; and
- A person who shall maintain visual contact with the pool, spa, or hot tub and/or the children and who shall not engage in activities not related to supervision.

4 Barriers

4.1 Means of protection. Every person in possession of land as owner, lessee, tenant, or licensee, upon which a residential swimming pool, spa, or hot tub is installed on or after the effective date of this code, shall provide a means of protection such as, but not limited to, the following:

- picket/ornamental fence;
- chain link fence;
- welded wire fence;
- battery or hard-wired alarms that comply with UL 2017;
- mesh restraining barrier/fence;
- stand-alone walls;
- building walls;
- screen enclosures;
- manual safety/powered safety covers complying with ASTM F1346; or
- natural topography.

4.2 Walls and fences. Walls and fences may be stand-alone or they may be used in combination with a building or structure.

1, 2. ASTM International, 100 Barr Harbor Dr, West Conshohocken, PA 19428, (610) 832-9585, www.astm.org
3. Underwriters Laboratories (UL), 333 Pfingsten Road, Northbrook, IL 60062, (847) 272-8800, www.ul.com