ISPSC

2024 GROUP A PROPOSED CHANGES TO THE I-CODES

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2024 GROUP A – PROPOSED CHANGES TO THE INTERNATIONAL SWIMMING POOL AND SPA CODE

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TENTATIVE ORDER OF DISCUSSION
2024 PROPOSED CHANGES TO THE INTERNATIONAL SWIMMING POOL AND SPA CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does not necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some SP code change proposals may not be included on this list, as they are being heard by another committee.

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SP1-24

ISPSC: SECTION 202, 202, 202 (New)

Proponents: Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Swimming Pool and Spa Code

Delete without substitution:

~~**EXERCISE SPA (Also known as a swim spa).** Variants of a spa in which the design and construction includes specific features and equipment to produce a water flow intended to allow recreational physical activity including, but not limited to, swimming in place. Exercise spas can include peripheral jetted seats intended for water therapy, heater, circulation and filtration system, or can be a separate distinct portion of a combination spa/exercise spa and can have separate controls. These spas are of a design and size such that they have an unobstructed volume of water large enough to allow the 99th Percentile Man as specified in APSP 16 to swim or exercise in place.~~

Revise as follows:

SPA. A structure or product intended for the immersion of persons in temperature-controlled water for the purpose of relaxing, exercise, therapy or treatment; designed and manufactured to be connected to a circulation system; ~~circulated in a closed system,~~ and not intended to be drained and filled with each use..This term includes, but is not limited to, exercise spas, hot tubs, permanent spas and portable electric spas. ~~A spa usually includes a filter, an electric, solar or gas heater, a pump or pumps, and a control, and can include other equipment, such as lights, blowers, and water sanitizing equipment.~~

Delete without substitution:

~~**Nonself-contained spa.** A factory-built *spa* in which the water heating and circulating equipment is not an integral part of the product. Nonself-contained spas may employ separate components such as an individual filter, pump, heater and controls, or they can employ assembled combinations of various components.~~

~~**Permanent residential spa.** A spa, intended for use that is accessory to a *residential* setting and available to the household and its guests and where the water heating and water-circulating equipment is not an integral part of the product. The spa is intended as a permanent plumbing fixture and not intended to be moved.~~

~~**Portable residential spa.** A spa intended for use that is accessory to a *residential* setting and available to the household and its guests and where it is either self-contained or nonself-contained.~~

~~**Public spa.** A spa other than a permanent *residential* spa or portable *residential* spa that is intended to be used for bathing and is operated by an owner, licensee or concessionaire, regardless of whether a fee is charged for use.~~

~~**Self-contained spa.** A factory-built spa in which all control, water heating and water-circulating equipment is an integral part of the product. Self-contained spas may be permanently wired or cord-connected.~~

POOL. See "*Public swimming pool*" and "*Residential swimming pool*."

PUBLIC SWIMMING POOL (Public Pool). A pool, other than a *residential* pool, that is intended to be used for swimming or bathing and is operated by an owner, lessee, operator, licensee or concessionaire, regardless of whether a fee is charged for use. Public pools shall be further classified and defined as follows:

Class A competition pool. A pool intended for use for accredited competitive aquatic events such as Federation Internationale De Natation (FINA), USA Swimming, USA Diving, USA Synchronized Swimming, USA Water Polo, National Collegiate Athletic Association (NCAA), or the National Federation of State High School Associations (NFHS).

Class B public pool. A pool intended for public recreational use that is not identified in the other classifications of public pools.

Revise as follows:

Class C semi-public pool. A pool operated solely for and in conjunction with lodgings such as hotels, motels, apartments, ~~or~~ condominiums or property owner associations or multi-family-owned pools used by more than three owner families..

Class D-1 wave action pool. A pool designed to simulate breaking or cyclic waves for purposes of general play or surfing.

Class D-2 activity pool. A pool designed for casual water play ranging from simple splashing activity to the use of attractions placed in the pool for recreation.

Class D-3 catch pool. A body of water located at the termination of a manufactured waterslide attraction. The body of water is provided for the purpose of terminating the slide action and providing a means for exit to a deck or walkway area.

Class D-4 leisure river. A manufactured stream of water of near-constant depth in which the water is moved by pumps or other means of propulsion to provide a river-like flow that transports bathers over a defined path that may include water features and play devices.

Class D-5 vortex pool. A circular pool equipped with a method of transporting water in the pool for the purpose of propelling riders at speeds dictated by the velocity of the moving stream of water.

Revise as follows:

Class D-6 interactive water play features ~~attraction~~.
Any indoor or outdoor installation that includes sprayed, jetted, or other water sources contacting bathers and not incorporating standing or captured water as part of the bather activity area. These aquatic venues are also known as splash pads, spray pads, and wet decks.
~~A manufactured water play device or a combination of water-based play devices in which water flow volumes, pressures or patterns can be varied by the bather without negatively influencing the hydraulic conditions for other connected devices. These attractions incorporate devices or activities such as slides, climbing and crawling structures, visual effects, user-actuated mechanical devices and other elements of bather-driven and bather-controlled play.~~

Class E physical therapy pool.. A ~~P~~pool~~s~~ used for ~~instruction, play or~~ physical therapy and with temperatures above 86°F (30°C).

Class F wading pools. ~~Class F pools are wading pools and are covered within the scope of this code as set forth in Section 405.~~A pool with an independent circulation system and physically separated from the main pool with a water depth 18 inches or less.
~~Public pools are either a diving or nondiving type. Diving types of public pools are classified into types as an indication of the suitability of a pool for use with diving equipment.~~

Type O. A nondiving public pool.

Types VI–IX. Public pools suitable for the installation of diving equipment by type.

AQUATIC RECREATION FACILITY. A facility that is designed for free-form aquatic play and recreation. The facilities may include, but are not limited to, wave or surf action pools, leisure rivers, sand bottom pools, vortex pools, activity pools, inner tube rides, body slides and interactive play attractions.

AQUATIC VENUE. A constructed structure or modified natural structure containing water and intended for recreational or therapeutic use. Exposure to water in these structures may occur by contact, ingestion or aerosolization. Examples include swimming pools, wave pools, lazy rivers, surf pools, spas, hot tubs, therapy pools, spray pads, waterpark pools and other interactive water venues.

Revise as follows:

ELEVATED SWIMMING POOL OR PERMANENT SPA. Any permanently installed pool, spa, cold plunge, catch basin, overflow trough, including any connected water feature, or body of water water feature, that is over a habitable, occupiable or unoccupied space that is (1) inside a thermal envelope, (2) outside a thermal envelope, or (3) a combination of inside and outside the thermal envelope.

EXISTING SWIMMING POOL OR PERMANENT SPA. A pool or spa constructed prior to the date of adoption of this code, or one for which a legal building permit has been issued.

Delete without substitution:

~~**INTERACTIVE WATER PLAY FEATURES.** Any indoor or outdoor structure designed to allow for public recreational activities with~~

~~recirculated, filtered, and treated water that includes sprayed, jetted or other water sources contacting bathers and not incorporating standing or captured water as part of the bather activity area. These installations are also known as splash pads, spray pads, and wet decks.~~

ONGROUND STORABLE POOL. A pool that can be disassembled for storage or transport. This includes portable pools with flexible or nonrigid walls that achieve their structural integrity by means of uniform shape, a support frame or a combination thereof, and that can be disassembled for storage or relocation.

PERIMETER FLOW POOL. A pool where the water surface is lifted and flows over the perimeter of the pool into a surrounding *gutter* that delivers water to the circulation pump.

RESIDENTIAL SWIMMING POOL (Residential Pool). A pool intended for use that is accessory to a *residential* setting and available only to the household and its guests. Other pools shall be considered to be public pools for purposes of this code.

Type O. A nondiving *residential* pool.

Types I–V. *Residential* pools suitable for the installation of diving equipment by type.

SPRAY POOL. A pool or basin occupied by construction features that spray water in various arrays for the purpose of wetting the persons playing in the spray streams.

Add new definition as follows:

Exercise Spa (Also known as a swim spa). .
A variant of a spa in which the design and construction includes specific features and equipment to produce a water flow intended to allow recreational physical activity including, but not limited to, swimming in place. Exercise spas can include peripheral jetted seats intended for water therapy, heater, circulation and filtration system, or can be a separate distinct portion of a combination spa and can have separate controls. These spas are of a design and size such that they have an unobstructed volume and depth of water to allow the 99th Percentile Man as specified in APSP 16 to swim or exercise in place. An exercise spa is also known as a swim spa.

202 SWIMMING POOL. Any structure or product intended for swimming, bathing or wading; designed and manufactured to be connected to a circulation system; installed aboveground, inground, onground, or partially aboveground; and not intended to be drained and filled with each use. See “Public swimming pool” and “Residential swimming pool.”

Delete without substitution:

~~**ACTIVITY POOL.** A pool designed primarily for play activity that uses constructed features and devices including lily pad walks, flotation devices, small slide features, and similar attractions.~~

Reason: This proposal is based on a need for alignment across the I-codes with the larger definitions of “swimming pool” and “spa” and then referring to the ISPSC for the more detailed definitions. Proposals for other I-codes to follow the ISPSC “swimming pool” and “spa” definitions is expected. The other edits to ISPSC existing definitions are being made for consistency with industry terms, ANSI standards and other regulations. Duplicate terminology is also being removed. These are all meant as editorial changes to provide clarity for the user; there are no substantive changes intended.

This proposal is submitted by the ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC)

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 PMGCAC has held 26 virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

A clarification for the use of these definitions in other I-codes The revised definitions do not change the technical requirements of the code and therefore there isn't any change to the cost of complying with the code.

SP1-24

SP2-24

ISPSC: SECTION 202

Proponents: Ronald Clements, Chesterfield County, VA, Chesterfield County, VA (clementsro@chesterfield.gov)

2024 International Swimming Pool and Spa Code

Revise as follows:

SWIMOUT. An underwater seat area that is placed completely outside of the diving envelope of the pool. ~~Where located at the deep end, swimouts are permitted to be used as the deep-end means of entry or exit to the pool.~~

Reason: The sentence proposed for deletion from the definition goes beyond defining the term, it is stating when used in the deep end the swimout can be used as a means of egress. That statement is a code requirement/allowance, it is not a definition. Section 411.1.3 is the code section addressing egress from deep ends and that section already lists swimouts as an approved deep end means of egress. Definitions should not go beyond defining the term.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

Where located at the deep end, swimouts are permitted to be used as the deep-end means of entry or exit to the pool." is proposed to be deleted because it is not a definition, it is a code requirement that has been repeated from the code requirement in Section 411.1.3. Section 411.1.3, provided below for comparison, states that in the deep area of pools means of entry and exit can be by swimouts as provided in list item #6; therefore, removal of a copy from code section 411.1.3 #6 from the definition of swimout in chapter 2 is editorial. It is editorial because removal of the sentence from the definition does not change how the term is defined, nor the code requirement that uses the term with regards to entry and exits from deep ends of pools.

SWIMOUT.
An underwater seat area that is placed completely outside of the diving envelope of the pool. Where located at the deep end, swimouts are permitted to be used as the deep-end means of entry or exit to the pool.

411.1.3 Deep area.

The means of entry and exit in the deep area of pools shall consist of one of the following:

1. Steps/stairs.
2. Ladders.
3. Grab rails with recessed treads.
4. Ramps.
5. Beach entries.
6. Swimouts.
7. Other designs that provide the minimum utility as specified in this code.

SP3-24

ISPSC: SECTION 202, SECTION 202 (New), SECTION 303, 303.1, 303.1.2 (New), TABLE 303.1.2 (New), 303.1.3 (New), 303.1.1, 303.1.2, 303.1.3, 303.2, 303.3, DOE (New)

Proponents: Maureen Guttman, Senior Fellow, Energy Solutions, California Investor-Owned Utilities

2024 International Swimming Pool and Spa Code

SECTION 202
DEFINITIONS

Add new definition as follows:

SITE-RECOVERED ENERGY. Waste energy recovered at the building site that is used to offset consumption of purchased energy supplies.

SOLAR THERMAL WATER HEATER. An assembly of components designed to heat water through the conversion of incident solar radiation at the building site.

SECTION 303
ENERGY

Revise as follows:

303.1 Energy consumption of pools and permanent spas. The energy consumption of pools and permanent spas shall be controlled by the requirements in Sections 303.1.1 through ~~303.1.3~~ 303.1.4 and with Section 317.

Add new text as follows:

303.1.1 Primary heating systems. The primary pool or spa heating system shall be one of the following:

1. A *solar thermal water heater* with a solar collector surface area equivalent to at least 65 percent of the pool or spa surface area.
2. A heat pump pool heater.
3. Systems that do not use *solar thermal water heaters* or heat pump pool heaters as their primary heat source shall derive no less than 60 percent of annual heating energy from *on-site renewable energy* or *site-recovered energy*.

Exceptions:

1. *Residential* pools and *residential* spas.
2. Portable electric spas.
3. A pool or spa heated only by a *solar thermal water heater*.

303.1.2 Pool heater efficiency. Pool heaters shall meet the minimum efficiency requirements of Table 303.1.2 when tested in accordance with the test procedure listed in DOE 10 CFR 430.23(p) and Appendix P to Subpart B of Part 430.

TABLE 303.1.2 POOL HEATER MINIMUM EFFICIENCY REQUIREMENTS

EQUIPMENT TYPE	MINIMUM EFFICIENCY

Heat Pump Pool Heater	4.0 COP rated at 50° F db 44.2° F wb outdoor air 80.0° F entering water
Gas-Fired Pool Heater	*Before 5/31/2028* *Integrated Thermal Efficiency not less than the following:* *600 (PE)/(PE + 1,619)* *where PE is the active electrical power, in Btu/h* *After 5/31/2028* *82% Et* *Before 5/31/2028* *84(QIN + 491)/(QIN + 2,536)* *where QIN is the input capacity, in Btu/h* *After 5/31/2028*

303.1.3 Heater controls. Heater controls and ignition pilots shall comply with Section 303.1.3.1 through Section 303.1.3.3.

Revise as follows:

~~**303.1.1**~~ **303.1.3.1** ~~**Heaters**~~ **Electric switches.** The electric power to heaters shall be controlled by an on-off switch with ready access that is an integral part of the heater, mounted on the exterior of the heater or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. ~~Gas-fired heaters shall not be equipped with continuously burning ignition pilots.~~

~~**303.1.2**~~ **303.1.3.2 Time switches.** Time switches or other control methods that can automatically turn off and on heaters and pump motors according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Pumps that operate solar- or waste-heat recovery pool heating systems.

~~**303.1.1**~~ **303.1.3.3** ~~**Heaters**~~ **Ignition pilots.** ~~The electric power to heaters shall be controlled by an on-off switch with ready access that is an integral part of the heater, mounted on the exterior of the heater or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater.~~ Gas-fired heaters shall not be equipped with continuously burning ignition pilots.

~~**303.1.3**~~ **303.1.4 Covers.** Outdoor heated pools and outdoor permanent spas shall be provided with a vapor-retardant cover or other *approved* vapor-retardant means in accordance with Section 104.9.1.

Exception: Where more than 75 percent of the energy for heating, computed over an operating season of not fewer than 3 calendar months, is from a heat pump or an on-site renewable energy system, covers or other vapor-retardant means shall not be required.

303.2 Portable spas. The energy consumption of electric-powered portable spas shall be controlled by the requirements of APSP 14.

303.3 Residential pools and permanent residential spas. The energy consumption of *residential* swimming pools and permanent *residential* spas shall be controlled in accordance with the requirements of APSP 15.

Add new standard(s) as follows:

DOE 10 CFR Part 430. Energy Conservation Program for Consumer Products: Test Procedures and Certification and Enforcement

Requirement for Plumbing Products; and Certification and Enforcement Requirements for Residential Appliances; Final Rule; Pool heaters

Staff Analysis: A review of the standard proposed for inclusion in the code, DOE 10CFR Part 430 *Energy Conservation Program for Consumer Products: Test Procedures and Certification and Enforcement Requirement for Plumbing Products; and Certification and Enforcement Requirements for Residential Appliances; Final Rule; Pool heaters*, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: This proposal, based on pool heater requirements proposed for California's 2025 energy code, requires that the primary heating system for pools and spas is either a solar thermal water heater, a heat pump pool heater or a heating system that derives no less than 60 percent of its annual heating energy from either on-site renewable energy or site-recovered energy. Natural gas or electric back-up heating systems are allowed in all cases. The proposal also includes mandatory minimum efficiency standards for pool heaters established by the U.S. Department of Energy.

The purpose of this proposal is to save energy and reduce carbon emissions from new swimming pool and spa heaters. According to CBECS 2018, the majority of pool and spa heaters installed today to heat indoor commercial pools are powered with natural gas (71%) which ties building owners to unpredictable utility costs caused by price swings in the natural gas market.

Solar thermal heating systems are cost effective alternatives to conventional gas-fired pool heaters which result in reduced energy use and lower monthly utility costs. Solar swimming pool and spa heating systems are one of the simplest and least expensive forms of solar thermal technology. The most common and least expensive type of solar swimming pool and spa heating systems are unglazed solar collectors which are made of a black plastic material that absorbs the sun's energy, converting it into heat which is then transferred to the water in the pool. Unglazed solar collectors are popular for swimming pools because they are easy to install, require little to no maintenance, and result in significantly lower monthly utility bills.

While a solar thermal heater with a backup gas-fired pool heater is more expensive than installing just a gas-fired pool heater (incremental costs are around $5,250 for a 20,000 gallon capacity pool), the reduction in monthly utility costs results in very short payback periods. A recent California CASE Study found that installing a solar pool and spa heating system with gas-fired back-up reduces natural gas use by 64 therms/year for residential pools and 45,000 therms/year for an Olympic sized pool. The same CASE study found that the reduction in natural gas use over 30 years resulted in a reduction in utility bills for solar pool and spa heating systems that were two to six times higher than the incremental cost for installing the system. The Department of Energy similarly states that the payback period for a solar pool and spa heating system alone is on the order of 1 to 7 years.

Not only do solar thermal water heaters result in reduced utility bills, but they can also reduce carbon emissions. The California CASE Study found that this requirement would reduce greenhouse gas emissions in California by approximately 37,000 metric tons of CO_2e per year. Given that commercial pools in California make up roughly 20% of the commercial pool market in the U.S., this proposal, if adopted nationwide, could result in a reduction of roughly 190,000 metric tons of CO_2e per year which is equivalent to taking 42,000 cars off the road.

As an alternative to installing a solar thermal heating system, this proposal allows for the installation of heat pump pool heaters or pool heaters which derive at least 60 percent of their annual heating energy from either on-site renewable energy or site-recovered energy. The California CASE study found that heat pump pool heaters save more energy and are more cost effective than solar thermal heating systems. This proposal exempts residential pools and spas and portable electric spas.

Bibliography: U.S. Department of Energy. *Solar Swimming Pool Heaters*. Accessed December 15, 2023. https://www.energy.gov/energysaver/solar-swimming-pool-heaters

California Energy Codes and Standards. *Codes and Standards Enhancement (CASE) Initiative 2025 California Energy Code: Swimming Pool Heating*. Revised October 2023. https://title24stakeholders.com/wp-content/uploads/2023/10/Revised-2025-T24-Final-CASE-Report_-NR-Swimming-Pool-Spa-Heating-1.pdf

Cost Impact: Increase

Estimated Immediate Cost Impact:

The California CASE study found that installing a solar thermal water heaters in addition to a gas-fired pool heating system in nonresidential pools resulted

in total 30-year incremental installation and maintenance costs of $18,786. The California CASE study found that heat pump pool heaters in addition to a gas-fired pool heating system result in $17,416 in incremental installation and maintenance costs over 30 years.

Estimated Immediate Cost Impact Justification (methodology and variables):

The estimated immediate incremental cost assumed that the owner installed a solar thermal water heater or a heat pump pool heater as the primary system and a gas heater as back-up. The incremental cost therefore is the full installed cost of solar thermal water heater or heat pump pool heater. The cost of the solar collectors was estimated from a database of installation cost values from the California Solar Initiative Commercial Pool Solar Thermal Rebate program. The database contains over 1,100 commercial pool solar thermal projects with data on the collector size and total project cost.

Estimated Life Cycle Cost Impact:

Over 30 years, the CASE study found that solar thermal water heaters saved between $38,000 to $150,000 for non-residential pools yielding a benefit to cost ratio between 2.0 to 6.6 depending on the Climate Zone. If one includes the immediate and maintenance costs for the solar thermal water heaters, total life cycle cost savings over 30 years are between $19,214 and $131,214 depending on the Climate Zone.

Over 30 years, the CASE study found that heat pump pool heaters saved between $40,697 to $202,301 for consumers yielding a benefit to cost ratio between 2.3 to 11.6 depending on the Climate Zone. If one includes the immediate and maintenance costs for the solar thermal water heaters, total life cycle cost savings over 30 years are between $23,281 and $184,885 depending on the Climate Zone.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

The methodology and variables for the life cycle cost impact calculation are descripted in the CASE study.

SP4-24

ISPSC: 303.1.2

Proponents: Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com); Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

303.1.2 Time switches. Time switches or other control methods that can automatically turn off and on heaters and pump motors according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Pumps that operate ~~solar-~~ on-site renewable energy or waste-heat recovery pool heating systems.

Reason: This proposal is being made to align with a change made in the 2024 IECC, Residential and 2024 IRC, Chapter 11. Section 303 Energy of the ISPSC is also in the IECC and Ch 11 of the IRC, so it is important to have them all align.

This change was done in the IECC to allow for more than just solar as an on-site renewable energy option to operate a pump, as other on-site renewable energy options may exist that would then fall under the exception to the time switch requirements. This change aligns with verbiage used in the IECC, but also aligns with the verbiage used in the exception to section 303.1.3 of the ISPSC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

It simply aligns the ISPSC code provisions with that of the IECC, for consistency and to ensure there is no confusion.

SP5-24

ISPSC: 305.1, 305.4

Proponents: Dan Lenz, All Seasons Dist., Inc., Midwest Chapter of the PHTA (dan@aspools.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

305.1 General. The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable *safety cover* complying with ASTM F1346 ~~and swimming pools are equipped with a powered *safety cover* that complies with ASTM F1346~~, the areas where those spas~~,~~ or hot tubs ~~or pools~~ are located shall not be required to comply with Sections 305.2 through 305.7.

305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors, gates or windows provide direct access to the pool or spa through that wall, one of the following shall be required:

1. Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor, doors and gates shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and labeled as a water hazard entrance alarm in accordance with UL 2017.
2. In dwellings not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located at not less than 54 inches (1372 mm) above the finished floor.
3. In dwellings that are required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
4. In structures other than dwellings, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1220 mm) above the finished floor.
5. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the ~~pools and~~ spas.
6. An *approved* means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.

Reason: Section 305.1 provides that pools with a powered safety cover that complies with ASTM F1346, the areas where those pools are located do not need to comply with Sections 305.2 through 305.7, removing all other barrier requirements.

Cover manufacturer's guidelines contain provisions whereby the cover is required to be left open given certain circumstances, including when the pool water is not balanced to industry standards, or when certain treatments, such as high concentrations of chlorine are introduced. When these events occur, and no other barriers exist, a significant safety hazard is created that can cause injury or death. As one example, Latham, a leading powered safety cover manufacturer posts on its website at https://www.lathampool.com/blog/maintain/automatic-pool-cover-maintenance-checklist/ that 'You may think you need to leave your pool closed permanently during the winter months when it's not in use, but weather permitting, it's important to open your cover once per week. When you do so, ***open the cover all the way for several hours*** in order to allow excessive chemicals to dissipate/evaporate.' The CDC recommends that if a pool encouters a fecal accident involving diarrhea, and the pool water contains cyanuric acid (Which most pool water does), that the pool water should be hyperchlorinated by raising the free chlorine level to 20 ppm for 28 hours (https://www.cdc.gov/healthywater/swimming/pdf/fecal-incident-response-guidelines.pdf). Latham's recommended safe chlorine level for a powered safety cover is 1.0 ppm (https://www.lathampool.com/blog/maintain/how-to-keep-pool-chemicals-from-damaging-your-automatic-safety-cover/), and that 'It is important to note that pool chemical damage is not covered under Latham's warranty. Chemical levels are the responsibility of the homeowner. Latham is not responsible for damage to any part of the pool that is caused by chemical imbalance.'

Additionally, representatives of the pool and spa industry with knowledge of construction and service know that these covers are often not covering the pool or are in some other state of disrepair, are closed but covered in water, or by other means creating a potential drowning hazard.

Bibliography: Dan Lenz is a 37 year pool industry veteran who is a PHTA Certified Building Professional, PHTA Certified Service Professional, past President and current Vice President of the Midwest chapter of the PHTA, Vice Chair of the PHTA Builder's Council, a member of the PHTA Education Committee and PHTA Service Council. He is a PHTA instructor who teaches industry certification courses including CPO, CMS, CST, CHTT and legacy CBP. Dan is also a pool industry consultant, called on routinely to speak to investors interested in the pool industry. He is employed as Vice President of All Seasons Dist., Inc out of Orland Park, IL, where his oversight includes their service and construction divisions, both of which are honored in the industry as one of the Top 50 Builders as well as one of the Top 50 Service Companies in the country.

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Cost Impact: Decrease

Estimated Immediate Cost Impact:

The cost of installing conventional barriers, such as 4ft. high fencing with self-closing, self-latching gates, is less than the cost of installing a powered safety cover, and in an example of an 18' x 36' inground pool, can save consumers anywhere from $7,750 to $15,500.

Estimated Immediate Cost Impact Justification (methodology and variables):

A powered safety cover installed on an 18' x 36' inground pool will cost a consumer $14,000 to $20,000 (Materials) and $1000 to $5000 for labor to install it.

Variables for cover materials include the pool's shape, pool construction type (Vinyl, fiberglass, or gunite), installation method (Are the tracks on top of the deck vs. concealed, is the mechanism on top of the deck vs. concealed, is the recessed mechanism lid designed to be walked on), recessed mechanism lid type, fabric color, control type, type of lid for the recessed mechanism (Aluminum vs. stone or brick), and is the motor hydraulic vs. electric.

Variables for cover labor include installation method, such as whether the tracks are on top of the deck vs. concealed; whether the mechanism on top of the deck vs. concealed; the length and source of the electrical and/or hydraulic feed; whether the mechanism lid is aluminum, stone, built to be walked on or not; as well as the distance that required drainage for the recessed mechanism must be run.

As opposed to a powered safety cover, a 4 ft. high, ornamental aluminum fence that is 188 ft. long (Which would surround the same 18' x 36' inground pool with 10' of space all around the pool from the pool edge to the fence), with two 4 ft. high, 3 ft. wide gates that include self-closing, self-latching hardware, would cost a consumer $6500 to $8000 (Materials) and $750 to $1500 for labor to install it.

Variables for fence materials include color and fence design detail.

Variable for fence labor include differences in quantity of fence posts and whether those posts are surface deck mounted vs. inground.

Powered safety covers have a cost to consumers that starts at $10,000 and quickly rises to as much as $25,000. As a PHTA Certified Building Professional, 37 year industry veteran, Vice President of the Midwest chapter of the PHTA, Vice Chair of the PHTA Builder's Council, member of the PHTA Education Committee and Service Council, PHTA CPO Instructor, Industry Consultant and Vice President of All Seasons Dist., Inc out of Orland Park, IL, where I oversee our pool construction division, I am fully knowledgeable of these costs.

Latham, an industry leader in vinyl and fiberglass pool manufacturing, as well as a powered safety cover manufacturer, indicates a similar powered safety cover cost range between $10,000 to $20,000 on their website at https://www.lathampool.com/plan-your-pool/inground-pool/automatic-pool-cover-price-guide/ .

A pool fence, as identified by Angi.com at https://www.angi.com/articles/pool-fence-cost.htm , costs between $15.00 and $25.00 per linear foot. Pools and their surrounding areas vary, but they indicate that "For $6000 you can easily have 300 linear feet of fencing installed, more than enough to surround even the larger residential inground pools."

SP6-24

ISPSC: 305.1.2 (New)

Proponents: Daniel Stonkus, Pool & Spa Enclosures, LLC. (dan@sunrooms-enclosures.com)

2024 International Swimming Pool and Spa Code

Add new text as follows:

305.1.2 Retractable Pool Enclosures. Where pools, spas or hot tubs are equipped with a manual lockable retractable enclosure complying with ASTM F1346, the areas where those pools, spas or hot tubs are located shall not be required to comply with Sections 305.2 through 305.7.

Staff Analysis: The proposed standard is in the current edition of the code.

Reason: Pool Enclosures offer security equal to, or beyond existing approved barriers while also providing the pool owner with other benefits(reduced chemicals, reduced debris, increased swimming season, reduced heating costs, etc.). This proposal is intended to make available an alternate method meeting the barrier requirements in section 305.

Please reference these additional insights to support the consideration of our proposal:

1. Manual safety covers are currently listed as an appropriate minimum construction standard for spas and hot tubs. I assume this is the case due to the ease at which a manual cover can secure a smaller area such as a spa or hot tub. If a manual cover can also secure a pool with the same ease, that should be acceptable as a minimum construction standard.
2. Due to the variety of designs, there are varying levels of difficulty in which a manual cover can secure a pool. We don't feel it's appropriate to classify all manual safety covers the same way. For example, enclosures can be produced with self-Locking sections. No guess work as someone simply manually slides the segment that will stop and lock down securing our manual cover in place whereby, securing the pool from unwanted entry. For refence, please see this video which shows how easy it can be to open or secure the pool. https://www.youtube.com/watch?v=hR8mnP6N818
3. There is no perfect solution to securing a pool. Motorized safety covers can be left open, motors can fail, or the fabric can rip. Fences can be left open. We believe that the risk of leaving a retractable pool enclosure open is comparable to the other currently acceptable barriers.
4. We are open to collaborating to further refine the language and specifications in our proposal. This will help ensure that the inclusion of retractable pool enclosures in Section 305 aligns with the overarching goal of enhancing pool safety standards.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal provides an alternate method to meet the barrier requirements. It does not impose a mandatory cost increase or decrease. Retractable pool enclosures are installed for a host of benefits beyond pool safety (reduced chemicals, reduced debris, increased swimming season, reduced heating costs, etc.). This proposal may be considered a cost reduction since another form of barrier would no longer be required.

SP7-24

ISPSC: 305.2.1

Proponents: Peter Zvingilas, State of Connecticut, SECTBO

2024 International Swimming Pool and Spa Code

Revise as follows:

305.2.1 Barrier height and clearances. Barrier heights and clearances shall be in accordance with all of the following:

1. The top of the barrier shall be not less than 48 inches (1219 mm) above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier.
2. The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.
3. The vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier shall not exceed 4 inches (102 mm) where measured on the side of the required barrier that faces away from the pool or spa.
4. Where the top of the pool or spa structure is above grade, the barrier shall be installed on grade or shall be mounted on top of the pool or spa structure. Where the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier shall not exceed 4 inches (102 mm).
5. <u>The barrier shall be a minimum of 3 feet (914mm) from the property line.</u>

Reason: A property owner applies to install a pool with a code compliant barrier that is located along the property line. When applying for this permit, the neighbor has no fence on his property, while the project is undertaken the neighbor installs a fence on their adjoining property line to not see the pool owner's fence. (no building permit required) Final inspection comes along after both install their respective fences and shows a non-compliant fence now. Who has to move their respective fence for compliance?

Bibliography:

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposal will not change the cost for a pool barrier. It just fixes the location adjacent to property lines.

SP7-24

SP8-24

ISPSC: 305.3, 305..3.1 (New), 305.3.1, 305.3.2, 305.3.3, 305.3.4, 305.4, 305.3.2.1 (New), 305.3.2.2 (New), 305.3.2.3 (New)

Proponents: Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

305.3 Doors and gates. Doors, ~~and~~ gates and windows in barriers shall comply with the requirements of Section~~s~~ 305.3.1 or 305.3.2. ~~through 305.3.3 and shall be equipped to accommodate a locking device. Pedestrian access doors and gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device. Doors and gates shall not swing over stairs.~~

Add new text as follows:

305..3.1 Doors and gates in barriers. Where a door or gate is not in a wall of a dwelling or structure, doors and gates in barriers shall comply with the requirements of Sections 305.3.1.1 through 305.3.1.4 and shall be equipped to accommodate a locking device. Pedestrian access doors and gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device. Doors and gates shall not swing over stairs.

Revise as follows:

~~**305.3.1**~~ **305.3.1.1 Utility or service doors and gates.** Doors and gates not intended for pedestrian use, such as utility or service doors and gates, shall remain locked when not in use.

~~**305.3.2**~~ **305.3.1.2 Double or multiple doors and gates.** Double doors and gates or multiple doors and gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-latching device.

~~**305.3.3**~~ **305.3.1.3 Latch release.** For doors and gates in barriers, the door and gate latch release mechanisms shall be in accordance with the following:

1. Where door and gate latch release mechanisms are accessed from the outside of the barrier and are not of the self-locking type, such mechanism shall be located above the finished floor or ground surface in accordance with the following:
   1.1. At public pools and spas, not less than 52 inches (1219 mm) and not greater than 54 inches (1372 mm).
   1.2. At *residential* pools and spas, not less than 54 inches (1372 mm).
2. Where door and gate latch release mechanisms are of the self-locking type such as where the lock is operated by means of a key, an electronic opener or the entry of a combination into an integral combination lock, the lock operation control and the latch release mechanism shall be located above the finished floor or ground surface in accordance with the following:
   2.1. At public pools and spas, not less than 34 inches and not greater than 48 inches (1219 mm).
   2.2. At *residential* pools and spas, at not greater than 54 inches (1372 mm).
3. At private pools, where the only latch release mechanism of a self-latching device for a gate is located on the pool and spa side of the barrier, the release mechanism shall be located at a point that is at least 3 inches (76 mm) below the top of the gate.

~~**305.3.4**~~ **305.3.1.4 Barriers adjacent to latch release mechanisms.** Where a latch release mechanism is located on the inside of a barrier, openings in the door, gate and barrier within 18 inches (457 mm) of the latch shall not be greater than $^1/_2$ inch (12.7 mm) in any dimension.

~~**305.4**~~ **305.3.2 Structure wall as a barrier.** Where a wall of a dwelling or structure serves as part of the barrier and where doors, gates or windows provide direct access to the pool or spa through that wall, each door, gate, or window in such barriers shall comply with the requirements of Section 305.3.2.1 or 305.3.2.2.~~one of the following shall be required:~~

~~1. Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor, doors and gates shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and labeled as a water hazard entrance alarm in accordance with UL 2017.~~

~~2. In dwellings not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located at not less than 54 inches (1372 mm) above the finished floor.~~

~~3. In dwellings that are required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.~~

~~4. In structures other than dwellings, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1220 mm) above the finished floor.~~

~~5. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the pools and spas.~~

~~6. An *approved* means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.~~

Add new text as follows:

305.3.2.1 Doors and gates. Where doors or gates provide direct access to the pool or spa, each door or gate shall comply with one of the following:

1. The doors or gate shall comply with the requirements of Sections 305.3.1.
2. The door or gate shall have an alarm that complies with Section 305.3.2.3.
3. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the pools and spas.
4. An *approved* means of protection shall be provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1, 2 or 3.

305.3.2.2 Operable windows. Where one or more operable windows provides direct access to the pool or spa, each operable window with a sill height of less than 48 inches shall comply with one of the following:

1. The window shall have an alarm that complies with Section 305.3.2.3.
2. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the pools and spas.
3. An *approved* means of protection shall be provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.

305.3.2.3 Alarms. Doors, gates, and operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor shall have an alarm that produces an audible warning when the door, gate, window, or its screen is opened. The alarm shall be *listed* and labeled as a water hazard entrance alarm in accordance with UL 2017.

1. In dwellings not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located at not less than 54 inches (1372 mm) above the finished floor.
2. In dwellings that are required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
3. In structures other than dwellings, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1220 mm) above the finished floor.

Staff Analysis: The proposed standards are in the current edition of the code.

Reason: Sections 305.3 and 305.4 were modified in the 2021 edition of the ISPSC to address accessibility considerations. (See proposal SP8-18 which was approved as submitted.) The latch release provisions under Section 305.3.3 were expanded, and Items 2, 3 and 4 under Section 305.4 were separated out from Item 1 to differentiate between the requirements for dwellings and other structures.

Some fixes were identified to improve these sections. This change reorganizes Sections 305.3 and 305.4 into one section encompassing all openings in barriers. And it reorganizes the section dealing with openings in a structural used as a barrier (previously 305.4).

Section-by-section substantiation:

Section 305.3: The title was changed to include doors, gates, AND windows to support the reorganization. Each opening must comply with either of the new subsections.

Section 305.3.1: This is the existing 305.3, and no substantive changes to the requirements were made. A scoping statement was added to limit the section to barriers that are not part of a structure. The language was taken from the existing 305.4 and changed to the negative.

Section 305.3.2: This is the existing 305.4, and it was reorganized and updated. The issue that made a simple fix impossible was the fact that the charging paragraph ended with “one of the following shall be required.” This meant that only one of the items that followed could be applied to the entire situation. The language was changed in this proposal to allow each opening to be considered individually and comply with any of the provisions that follow.

Section 305.3.2.1: Doors and gates are now treated separately from windows for flexibility of compliance. Each opening should be considered individually to determine compliance.

Item 1: This requirement was implied, but not stated, in existing Section 305.4, Item 6, which pointed to “self-closing doors with self-latching devices” as an approved means of protection. This was required in existing Section 305.3, and it is logical that doors and gates complying with the requirements for doors and gates in barriers are acceptable for doors and gates in barriers that are part of a structure.

Item 2: This item points to the alarm requirements found in the existing section 305.4. It was repeated for operable windows below.

Items 3 and 4: These were copied from existing section 305.4 Items 5 and 6 (shown deleted) and are repeated for operable windows below.

Section 305.3.2.2: This is the complementary section for windows, similar to the section for doors and gates above. The option of providing operable windows with a sill height of 48 inches or more was not clearly stated in the existing language, but it was implied by requiring an alarm for operable windows with a sill height of less than 48 inches. It is provided in the charging statement for the sake of completeness.

Item 1: This item points to the alarm requirements found in the existing section 305.4.

Items 2 and 3: These are copied from existing section 305.4 Items 5 and 6 (shown deleted) and are repeated for operable windows below.

Section 305.3.2.3: This was moved to a separate section to be referenced by Section 305.3.2.1 Item 2 as well as Section 305.3.2.2 Item 2 above. The text was modified to editorially move doors and gates before operable windows and its qualifying language. The intent was to make it clear that the sill height limitation only applies to operable windows. The word “each” was added to clarify that each opening is treated individually.

Before the 2018 proposal, existing Items 2, 3 and 4 were part of the same paragraph with the charging language and should have been kept subordinate to it. These items were renumbered as Items 1, 2 and 3 to restore that subordination.

This proposal is submitted by the ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC)

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 PMGCAC has held 26 virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

Provides clarification to make it easier to understand the current requirements for doors gates windows and alarms. Makes it easier to navigate for the code user. The technical requirements are the same as the current code so there are not any changes that would impact

the costs to comply.

SP8-24

SP9-24

ISPSC: 305.4, ASTM Chapter 11 (New)

Proponents: Alan Korn, CamerEye (alankorn@msn.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors, gates or windows provide direct access to the pool or spa through that wall, one of the following shall be required:

1. Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor, doors and gates shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and labeled as a water hazard entrance alarm in accordance with UL 2017.
2. In dwellings not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located at not less than 54 inches (1372 mm) above the finished floor.
3. In dwellings that are required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
4. In structures other than dwellings, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1220 mm) above the finished floor.
5. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the pools and spas.
6. A pool alarm that is listed and labeled in accordance with ASTM F2208 Section Classification Type A 4.1.1, Type B 4.1.2 or Type C 4.1.3
7. ~~6~~ An *approved* means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.

Add new standard(s) as follows:

ASTM

ASTM International
100 Barr Harbor, P.O. Box C700
West Conshohocken, PA 19428-2959

F2208-08(2019) Standard Safety Specification for Residential Pool Alarms

Staff Analysis: A review of the standard proposed for inclusion in the code, ASTM F2208-08(2019) S*tandard Safety Specification for Residential Pool Alarms*, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Attached Files

- **ISPSC CamerEye Submission Final.docx**
  https://www.cdpaccess.com/proposal/9785/28931/files/download/4072/

Reason: It has been many years since Section 304 of the International Swimming Pool & Spa Code (hereinafter referred to as the "ISPSC") has been officially revisited and/or revised. Since that time the technology behind pool alarms and their many varieties have seen remarkable advances. Advances that have produced products that, if used, will substantially improve the safety of aquatics environments and, in particular, pools and spas. The ISPSC should reflect those advances as it has in the past when revision have been made from the 2012 to 2015 to 2018 versions. For example, alarms have been improved dramatically by infrared detection, Artificial Intelligence technology, and visual and imagery data. These technologies are readily available and used in the marketplace today. In fact, many pool/spa builders and contractors (and pool owners themselves) prefer the advanced and better designed alarms compared to just traditional window and door alarms commonly used. The new alarms not only serve safety better, but some can be permanently

affixed to the home and are out of sight, so pool and spa owners are not tempted (due to aesthetics) to remove the alarms after inspection and approval by code officials. These new and generally accepted devices and technologies make for a more robust pursuit of the universally accepted "layers of protection" that work together to prevent downing, especially for children.

Bibliography: n/a

Cost Impact: Increase

Estimated Immediate Cost Impact:

Cost impact depends on the safety device selected to provide the additional layer of protection. The range is from $50 to approximately $700.

Estimated Immediate Cost Impact Justification (methodology and variables):

Dependent on the safety device selected to comply. See above.

Estimated Life Cycle Cost Impact:

This is a one time cost. There are no apparent, material additional costs.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

n/a

SP9-24

SP10-24

ISPSC: 305.4, ASTM Chapter 11 (New)

Proponents: Ed Trevisani, Idc Services, Manager (edtrev3@gmail.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors, gates or windows provide direct access to the pool or spa through that wall, one of the following shall be required:

1. ~~Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor, doors and gates shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and labeled as a water hazard entrance alarm in accordance with UL 2017.~~All doors and windows providing direct access from the home to the pool shall be equipped with an exit alarm complying with UL 2017 that has a minimum sound pressure rating of 85 dBA at 10 feet (3048 mm). Any deactivation switch shall be located at least 54 inches (1372 mm) above the threshold of the access. Separate alarms are not required for each door or window if sensors wired to a central alarm sound when contact is broken at any opening.
2. In dwellings not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located at not less than 54 inches (1372 mm) above the finished floor.
3. In dwellings that are required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
4. In structures other than dwellings, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1220 mm) above the finished floor.
5. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the pools and spas.
6. An *approved* means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.
7. A swimming pool alarm that, when placed in a pool, sounds an alarm upon detection of an accidental or unauthorized entrance into the water. Such pool alarm shall be listed and labeled to ASTM F2208, which includes surface motion, pressure, sonar, laser, and infrared alarms. For purposes of this item, the term swimming pool alarm shall not include any swimming protection alarm device designed for individual use, such as an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water.

Add new standard(s) as follows:

ASTM

ASTM International
100 Barr Harbor, P.O. Box C700
West Conshohocken, PA 19428-2959

F2208-08(2019) ***Standard Safety Specification for Residential Pool Alarms***

Staff Analysis: A review of the standard proposed for inclusion in the code, ASTM F2208-08(2019) S*tandard Safety Specification for Residential Pool Alarms*, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: Current standards for Audible alarms for pools do not work and are missing today's technological advancements! Many states in the us have changed code language; added options and/or eliminated Part of the code due to its inefficiency in protecting human life.

We simply propose a change in language that promotes better safety practices beyond specifically "listed" devices.

Regardless of approved device pool code can't stop human error! Pool Safety starts with combating Human error.

In our 25 years of construction experience we have found that 90% of homeowners remove the approved audible alarms after

inspections are completed.

Bibliography: According to a survey conducted by the Consumer Product Safety Commission (CPSC), pool alarms are an effective way to prevent drowning incidents. The survey found that pool alarms were the second most effective safety measure after pool fencing [1].

There are two types of pool alarms: audible alarms and monitored alarms. Audible alarms emit a loud sound when triggered, while monitored alarms send a notification to a remote monitoring center or a smartphone app [2].

Audible alarms are generally less expensive than monitored alarms and can be installed by homeowners themselves. However, they may produce false alarms due to wind, rain, or other environmental factors. Monitored alarms, on the other hand, are more reliable and can be customized to suit individual needs. They are also more expensive and require professional installation [12].

It's important to note that pool alarms are not a substitute for adult supervision. They are an additional layer of protection that can help prevent accidents. It's recommended to use multiple safety measures, such as pool fencing, pool covers, and pool alarms, to ensure maximum safety [1].

R4501.17.1.9

Where a wall of a dwelling serves as part of the barrier, one of the following shall apply:

1. 1.All doors and windows providing direct access from the home to the pool shall be equipped with an exit alarm complying with UL 2017 that has a minimum sound pressure rating of 85 dBA at 10 feet (3048 mm). Any deactivation switch shall be located at least 54 inches (1372 mm) above the threshold of the access. Separate alarms are not required for each door or window if sensors wired to a central alarm sound when contact is broken at any opening.

   Exceptions:

   1. a.Screened or protected windows having a bottom sill height of 48 inches (1219 mm) or more measured from the interior finished floor at the pool access level.
   2. b.Windows facing the pool on floor above the first story.
   3. c.Screened or protected pass-through kitchen windows 42 inches (1067 mm) or higher with a counter beneath.
2. 2.All doors providing direct access from the home to the pool must be equipped with a self-closing, self-latching device with positive mechanical latching/locking installed a minimum of 54 inches (1372 mm) above the threshold, which is approved by the authority having jurisdiction.
3. 3.A swimming pool alarm that, when placed in a pool, sounds an alarm upon detection of an accidental or unauthorized entrance into the water. Such pool alarm must meet and be independently certified to ASTM Standard F2208, titled "Standard Safety Specification for Residential Pool Alarms," which includes surface motion, pressure, sonar, laser, and infrared alarms. For purposes of this paragraph, the term "swimming pool alarm" does not include any swimming protection alarm device designed for individual use, such as an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

Monitored alarms are an option to the current alarm options in the code. Options have no cost impact as the the choice of which option to use if up the builder or designer of the pool.

SP11-24

ISPSC: 305.4

Proponents: David Renn, PE, SE, City and County of Denver, Colorado Chapter Code Development Committee (david.renn@denvergov.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors, gates or windows provide direct access to the pool or spa through that wall, one of the following 3 items shall be provided~~required~~:

1. Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor, doors and gates shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and labeled as a water hazard entrance alarm in accordance with UL 2017.
   1.1. ~~2~~ In dwellings not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located at not less than 54 inches (1372 mm) above the finished floor.
   1.2. ~~3~~ In dwellings that are required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
   1.3. ~~4~~ In structures other than dwellings, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1220 mm) above the finished floor.
2 ~~5~~. A *safety cover* that is *listed* and *labeled* in accordance with ASTM F1346 is installed for the pools and spas.
3 ~~6~~. An *approved* means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.

Reason: In the 2021 ISPSC, Section 305.4 was revised from including 3 items to including 6 items, and the charging language requires compliance with any of these 6 items. However, Items 2, 3 and 4 were previously part of Item 1 and were never intended to be separate items since they just give height requirements of the alarm deactivation switch for various conditions - the alarm itself is Item 1. This proposal clarifies that one of 3 items must be provided, and the height requirements are changed to 1.1, 1.2 and 1.3 so they are part of Item 1.

Note that the last item references a means of protection that is not less than that of Items 1 or 2 - this wasn't changed in the 2021 revision and, therefore, didn't correspond to the new numbering with 6 items - this proposal leaves this item as is since reference to Item 1 or 2 is now correct.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is editorial as it just brings back the previous numbering system with 3 items as intended.

SP12-24

ISPSC: 307.1.2, 307.1.2.1, ASTM Chapter 11 (New)

Proponents: Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

307.1.2 Colors and finishes. For other than *residential* pools and *residential* spas, the colors, patterns, or finishes of the pool and spa interiors shall not obscure objects or surfaces within the pool or spa. The ~~interior finish coating~~ floors and walls of the interior finish shall be white or light–colored.

307.1.2.1 ~~Munsell gray scale~~ Testing. ~~Finishes shall be not less than 8.0 on the Munsell gray scale~~ The interior finish shall have a dry lightness value of 80.0 CIE L* Value (8.0 Munsell Grey Scale) or greater, and a wet Luminous Reflectance Value (CIE Y value) of 50.0 or greater, as determined by test results provided by the manufacturer utilizing the testing methods and procedures of ASTM D 4086, ASTM E 1477, or ASTM E 1347.

Exceptions: The following shall not be required to comply with this section:

1. Competitive lane markings.
2. Floors of dedicated competitive diving wells.
3. Step or bench edge markings.
4. Pools shallower than 24 inches (609.6 mm).
5. Water line tiles.
6. Wave and surf pool depth change indicator tiles.
7. Depth change indicator tiles where a rope and float line is provided.
8. Features such as rock formations, as *approved*.

Add new standard(s) as follows:

ASTM

ASTM International
100 Barr Harbor, P.O. Box C700
West Conshohocken, PA 19428-2959

E1347-06(2020)	Standard Test Method for Color and Color-Difference Measurement by Tristimulus Colorimetry
E1477-98a(2022)	Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers
D4086-18	Standard Practice for Visual Evaluation of Metamerism

Staff Analysis: A review of the standards proposed for inclusion in the code,
ASTM E1347-06(2020) *Standard Test Method for Color and Color-Difference Measurement by Tristimulus Colorimetry*
ASTM E1477-98a(2022) *Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers*
ASTM D4086-18 *Standard Practice for Visual Evaluation of Metamerism*
, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: The 'Munsell Grey Scale Test' (Dry Lightness Value) is only adequate for Health Department Engineer's (or AHJ's) to compare submitted samples, or to make an initial 'go/'no go' (pass/fail) assessment. To understand the actual coloration of the interior finish requires the sample to be wetted prior to testing, in order to mimic the real-world underwater environment.

All cementitious interior finishes for swimming pools get darker (shade) when wetted. Some finishes are worse than others. Therefore, the only way to properly 'approve' an interior finish is to test dry and wet.

The dry test can be used by the AHJ as an initial pass/pass/failure, and the wet test can be used by the AHJ to determine bather safety based on the ability of a lifeguard to effectively see a bather in distress, and on other prevailing conditions present for each swimming pool.

The Florida Building Code adopted similar proposed language on January 1, 2018. Most manufacturers/producers have followed suit and provide this testing for all finishes that have the potential to be submitted for usage in public pools.

Cost Impact: Increase

Estimated Immediate Cost Impact:

$450-500 per finish to provide wet testing.

Estimated Immediate Cost Impact Justification (methodology and variables):

The Manufacturer/Producer of interior finishes for swimming pools will have a one-time cost for testing each interior finish that they deem to be white, or light colored enough to have the potential for usage in public pools.

Manufacturers are already required to test the dry lightness. The additional cost would be for the wet light reflectance test which gives the AHJ a true and realistic way of determining the coloration of the finish once underwater.

Currently, this one-time outside laboratory testing is about $450-$500 per finish. The interior swimming pool finish does not need to be re-tested unless a significant change is made to any component or proportion of the mix design of that interior finish.

Estimated Life Cycle Cost Impact:

None.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

N/A

SP12-24

SP13-24

ISPSC: SECTION 202, 307.2.1.1

Proponents: Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com); Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

AQUATIC RECREATION FACILITY. A facility that is designed for free-form aquatic play and recreation. The facilities may include, but are not limited to, wave ~~or surf~~ action pools, leisure rivers, ~~sand bottom pools,~~ vortex pools, activity pools,catch pools ~~inner tube rides, body slides~~ and interactivewater play features ~~attractions~~.

307.2.1.1 ~~Beach~~ Sand bottom pools. Clean sand or similar material, where used underwater in a ~~beach~~ pool environment, shall be used over an impervious surface. The sand area shall be designed and controlled so that the circulation system, maintenance, safety, sanitation, and operation of the pool are not adversely affected.

Reason: This proposal aligns the "Aquatic Recreation Facility" definition with the classifications and wording used in the Class D pools. It removes pool types that are not listed within the Class D pools and also adds a Class D pool type, catch pools, that is not currently listed within the definition. These changes do not limit other aspects that could be included in an "Aquatic Recreation Facility" designed for free-form aquatic play and recreation, but ensure the examples listed fall within defined Class D categories that currently exist in the ISPSC definitions.

The proposal also more accurately titles Section 307.2.1.1 to reflect that this section is addressing pools that use sand or similar material under the water of a pool. Whereas beach pools could also be beach entry/zero entry pools that do not necessarily have sand or similar material being used under the water. This will make it clear to the code user that if a pool is utilizing a sand bottom, it must meet the requirements within this subsection.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is not intending to make any technical changes, but simply clarify a current definition and subsection for consistency and in order to provide clarity to the code user.

SP14-24

ISPSC: 307.2.2

Proponents: Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

307.2.2 Materials and structural design. Pools and spas shall conform to one or more of the standards indicated in Table 307.2.2. The structural design of pools and spas shall be in accordance with the *International Building Code* or the *International Residential Code*, as applicable in accordance with Section 102.7.1 of this code.

~~**Exception:** Pools and spas constructed with reinforced concrete or reinforced shotcrete with a minimum compressive strength of 2,500 pounds per square inch (175.8 kg/cm^2) as designed by a design professional and approved shall be permitted.~~

Reason: This proposal removes the 2,500 minimum psi compressive strength exception in 307.2.2 in favor of strength calculated by following American Concrete Institute (ACI) 318.

This change will place the burden of calculating and justifying minimum compressive strength of a concrete pool shell in the hands of the Licensed Design Professional or Engineer and the AHJ and their interpretations of the requirements of ACI 318. This interpretation may vary depending on location, type of structure (structurally watertight vessel), and placement environment severity (constant water contact having chlorides, sulfates, potentially low pH and/or low alkalinity).

ACI 318 is authoritative for the engineering of structural reinforced concrete or shotcrete used for the water-containment portion of a swimming pool as spa. The swimming pool structure should be engineered to resist the anticipated stresses, deflection, and load factors that can occur when filling and draining the pool with water, and include other anticipated regional concerns, such as expansive soils and freeze/thaw, per ACI 318.

The current ISPSC exception allows 2,500 psi minimum compressive strength, but in ACI 318 2,500 psi is the starting point for calculations for all structures. The ACI 318 requires that the durability section must also considered, and the engineer address the placement environment severity (mentioned above) as part of the engineering.The American Shotcrete Association has several Shotcrete for Swimming Pool Position Papers stipulating 4,000 psi minimum compressive strength:

Bibliography: Position papers referenced at Resources - American Shotcrete Association

1. American Shotcrete Association, ASA Pool and Recreational Shotcrete Committee, Position Statement #1, "Compressive (Strength) Values of Pool Shotcrete."
2. American Shotcrete Association, ASA Pool and Recreational Shotcrete Committee, Position Statement #2, "Definitions of Key Shotcrete Terminology."
3. American Shotcrete Association, ASA Pool and Recreational Shotcrete Committee, Position Statement #3, "Sustainability of Shotcrete in the Pool Industry."
4. American Shotcrete Association, ASA Pool and Recreational Shotcrete Committee, Position Statement #4, "Watertight Shotcrete for Swimming Pools."
5. American Shotcrete Association, ASA Pool and Recreational Shotcrete Committee, Position Statement #5, "Monolithic Shotcrete for Swimming Pools (No Cold Joints)."
6. American Shotcrete Association, ASA Pool and Recreational Shotcrete Committee, Position Statement #6, "Forming and Substrates in Pool Shotcrete."

Cost Impact: Increase

Estimated Immediate Cost Impact:

$350 - $650 per pool depending on size of pool and area of country.

Estimated Immediate Cost Impact Justification (methodology and variables):

To achieve the structural strength required per ACI 318would require the additional of 1-one extra bag of Portland cement be added for

every square yard of concrete/shotcrete placed.

Approximate increase to an average swimming pool costing $30,000-$50,000, depending on the region of the country, would be approximately $350 - $650 for additional required cement as above.

The above assumes an average-sized 450 square foot pool.

Estimated Life Cycle Cost Impact:

None. Possible decrease for some pools from lower chance of structural failure.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

None.

SP14-24

SP15-24

ISPSC: 307.2.2, 307.2.2.1 (New), TABLE 307.2.2, 307.2.2.2 (New), 307.2.2.2.1 (New)

Proponents: Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

307.2.2 Materials and structural design. Materials shall be in accordance with Section 307.2.2.1. Structural design shall be in accordance with Section 307.2.2.2.~~Pools and spas shall conform to one or more of the standards indicated in Table 307.2.2. The structural design of pools and spas shall be in accordance with the *International Building Code* or the *International Residential Code*, as applicable in accordance with Section 102.7.1 of this code.~~

Exception: Pools and spas constructed with reinforced concrete or reinforced shotcrete with a minimum compressive strength of 2,500 pounds per square inch (175.8 kg/cm^2) as designed by a design professional and approved shall be permitted.

Add new text as follows:

307.2.2.1 Materials. Pools and spas shall conform to one or more of the standards indicated in Table 307.2.2.1.

Revise as follows:

TABLE ~~307.2.2~~ 307.2.2.1 RESERVOIRS AND SHELLS

MATERIAL	STANDARD
Fiberglass reinforced plastic	IAPMO Z124.7
Plastic	IAPMO Z124.7
Reinforced concrete	ACI 318
Reinforced shotcrete	ACI 318
Stainless steel (Types 316, 316L, 304, 304L)	ASTM A240
Tile	ANSI A108/A118/A136.1
Vinyl	ASTM D1593

Add new text as follows:

307.2.2.2 Structural Design. The structural design of pools and spas shall be in accordance with the International Building Code or the International Residential Code, as applicable in accordance with Section 102.7.1 of this code.

307.2.2.2.1 Angle of repose. Trenching and excavations associated with pools and spas installed parallel to footings and walls shall not extend into the bearing plane of a footing or wall. The upper boundary of the bearing plane shall be defined as a line that extends downward, at an angle of 45 degrees (0.79 rad) from horizontal, from the outside bottom edge of the footing or wall.

Exception: This section shall not apply where approved underpinning or other methods designed by an engineer are used to protect the foundation system of the pool, spa, and adjacent structures.

Reason: Currently the ISPSC does not address the angle of repose from a foundation. This code section is needed to ensure that when excavation associated with pools and spas occur those excavations do not adversely affect any adjacent structure or walls.

With some developers choosing to use smaller lot sizes and a nationwide effort to increase density, we are seeing more dwellings and public areas where pools are installed in a manner that adversely affects the structures in the immediate vicinity of the excavation sites for pools and spas. This code section is needed to protect the adjacent structures and walls. Furthermore, this requirement can be found in the IPC for trenches and will align with existing requirements.

This proposal is submitted by the ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC)

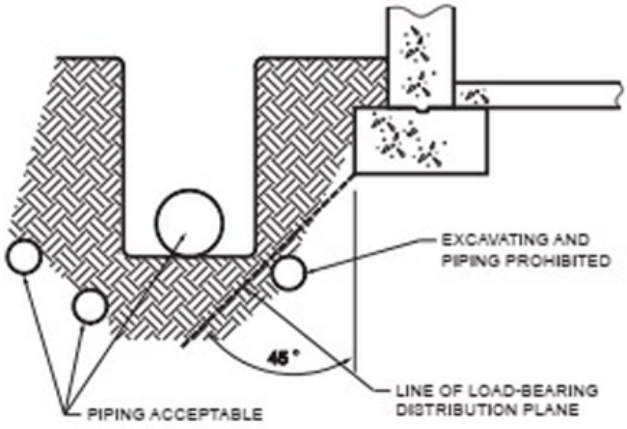
PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 PMGCAC has held 26 virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Bibliography:

IPC: 307.5 Protection of footings.

Trenching installed parallel to footings and walls shall not extend into the bearing plane of a footing or wall. The upper boundary of the bearing plane is a line that extends downward, at an angle of 45 degrees (0.79 rad) from horizontal, from the outside bottom edge of the footing or wall.

IPC Commentary: A footing requires a minimum load-bearing area to distribute the weight of the building. This load-bearing distribution plane extends downward at approximately a 45-degree (0.79 rad) angle from the base of the footing. Water, building drainage and building sewer piping must not be installed below this load-bearing plane. Excavation for the installation of pipe below the plane could affect the load capacity of the footing or cause the excavation to collapse (see Commentary Figure 307.5).



Commentary Figure 307.5
EXCAVATION IN RELATION TO FOOTING

Cost Impact: Increase

Estimated Immediate Cost Impact:

For a 30 foot pool wall, about $900.

Estimated Immediate Cost Impact Justification (methodology and variables):

Generally about $25-30 per foot of wall for more reinforcing steel, concrete and added labor.

Estimated Life Cycle Cost Impact:

N/A

Estimated Life Cycle Cost Impact Justification (methodology and variables):

N/A

SP15-24

SP16-24

ISPSC: TABLE 312.4, TABLE 312.4.1

Proponents: Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

TABLE 312.4 CIRCULATION SYSTEM PIPE MATERIAL STANDARD

MATERIAL	STANDARD
~~Acrylonitrile butadiene styrene (ABS) plastic pipe~~	~~ASTM D1527~~
Chlorinated polyvinyl chloride (CPVC) plastic pipe and tubing	ASTM D2846; CSA B137.6
Copper or copper-alloy tubing	ASTM B88; ASTM B447
Polyvinyl chloride (PVC) hose	ASTM D1785; ASTM D2241; ASTM D2672; CSA B137.3
Polyvinyl chloride (PVC) plastic pipe	ASTM D1785; CSA B137.3
Stainless steel pipe, Types 304, 304L, 316, 316L	ASTM A312

TABLE 312.4.1 CIRCULATION SYSTEM FITTINGS

MATERIAL	STANDARD
~~Acrylonitrile butadiene styrene (ABS) plastic pipe~~	~~ASTM D1527~~
Chlorinated polyvinyl chloride (CPVC) plastic pipe and tubing	ASTM D2846; ASTM F437;ASTM F438; ASTM F439; CSA B137.6
Copper or copper-alloy tubing	ASME B16.15
Polyvinyl chloride (PVC) plastic pipe	ASTM D2464; ASTM D2466; ASTM D2467; CSA B137.2; CSA B137.3
Stainless steel pipe, Types 304, 304L, 316, 316L	ASTM A182; ASTM A403

Reason: ASTM D1527 has been withdrawn by ASTM and there is no substitute standard to guide installation.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

$1-2,000

Estimated Immediate Cost Impact Justification (methodology and variables):

Total cost of residential pool piping is approximately $7,500 to $10,000. ABS piping tends to be more expensive than PVC piping, so that cost could be as high as $12,000 for an average residential pool. Removing the more expensive option results in the estimated average savings.

All of these costs can increase dramatically in a typical public pool installation due to the greater average size of the projects.

Estimated Life Cycle Cost Impact:

None.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

N/A

SP17-24

ISPSC: SECTION 202 (New), SECTION 202, 316.4.1

Proponents: Gregory Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Add new definition as follows:

FREEBOARD. The vertical distance between the operating level of the pool and the level where the water would spill beyond the pool or onto the deck. For a pool with a vanishing edge, or where the coping is lower than the design pool water level, the freeboard would be zero.

Revise as follows:

SURGE CAPACITY. The storage volume in a surge tank, *gutter,* and plumbing lines that is available during operation of the pool to temporarily hold water that has been displaced from the pool by bathers, without diverting that water to waste. Water held in surge capacity shall not be in motion due to gravity, rather, only by the pumps.

316.4.1 Surge capacity. Where perimeter surface skimming systems are used, they shall be connected to a circulation system with a system surge capacity of not less than ~~1~~ 0.5 gallon for each square foot (~~40.7~~ 20.4 liters per square meter) of water surface, unless there is 2 inches (51 mm) or more of freeboard around the entirety of the pool perimeter. The capacity of the perimeter overflow system and related piping is permitted to be considered as a portion of the surge capacity.

Reason: The purpose of surge capacity is poorly understood. The idea of surge capacity is to allow the pool to fill up with people and empty out without having to divert the displaced water to waste.

1. Surge capacity should not be required on pools with adequate freeboard, because they will not dump water to waste during a high bather load event. Some pools, such as vanishing edge pools or tension edge pools, would not have adequate freeboards, for example.
2. Areas that only ever have water in motion (such as gutter pipes and gutter trenches) should not count as surge capacity, because these areas typically cannot fill up with water. For example, consider a vanishing edge pool with no main drain that has a section of sloping gutter pipe above the catch basin static water level. This pipe does not get fuller when more people come into the pool. Its fullness depends on the flow rate and pipe slope only.
3. Experience shows many areas have adopted this requirement, but few enforce it, and those that do are not consistent in how they apply it. The requirement of one gallon per square foot converts to a height of about 1.75 inches of water over the pool. Surge capacity is intended to prevent water from going to waste every time a group of bathers enters the pool. Therefore, in a typical open gutter pool, with freeboard behind the gutter dropouts, water is never diverted to waste due to high bather load, and surge capacity is not needed. All that happens in that case is the water over the gutter lip temporarily grows, and this is benign.

The current definition of surge capacity expects the excess water to go to places it will not actually go, because gutter pipes typically run partially full of flowing water down a slope. The volume held in a gutter pipe is a function of the gutter flow rate, and it does not change when some volume is displaced.

Surge capacity should be more narrowly defined, and it should only be required where freeboard is low. This proposal addresses that and adds a definition for "freeboard".

Cost Impact: Decrease

Estimated Immediate Cost Impact:

Difficult to estimate due to the differences in pool sizes and tank costs between projects.

Surge tanks range in price from $150-$10,000

Assuming a larger residential pool able to use a smaller surge tank under the proposal, the average decrease would likely be $1,000 to $2,000.

Estimated Immediate Cost Impact Justification (methodology and variables):

Listed prices of surge tanks, cost of installation would be unaffected by the tank size.

Estimated Life Cycle Cost Impact:

None.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

None.

SP17-24

SP18-24

ISPSC: 317.2, TABLE 317.2(1), TABLE 317.2(2), CSA Chapter 11 (New)

Proponents: Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

317.2 Certification. Heaters ~~and hot water storage tanks~~ shall be *listed* and *labeled* in accordance with the applicable standard indicated in Table 317.2(1). ~~Hot water~~ Hheating systems and components shall comply with the applicable standard indicated in Table 317.2(2).

TABLE 317.2(1) ~~WATER HEATERS~~ POOL AND SPA HEATERS

DEVICE	STANDARD
Electric ~~water heater~~ pool and spa heaters	UL 1261, UL 1563 or CSA C22.2 No. 218.1
Gas-fired ~~water heater~~ pool and spa heaters	ANSI Z21.56/CSA 4.7a
Heat exchanger	AHRI 400
Heat pump ~~water heater~~ pool and spa heaters	AHRI 1160 and one of the following: ~~CSA C22.2 No. 236, UL 1995, or~~ UL~~/CSA~~ 60335-2-40 or CSA C22.2 No.60335-2-40

TABLE 317.2(2) ~~WATER~~ POOL AND SPA HEATING SYSTEMS AND COMPONENTS

SYSTEM	STANDARD
Solar ~~water heater~~ pool and spa heating system	ICC/APSP 902/SRCC 400

Add new standard(s) as follows:

CSA

CSA Group
8501 East Pleasant Valley Road
Cleveland, OH 44131-5516

CSA 22.2 NO. 60335-2-40:22 Household and similar electrical appliances — Safety — Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers (Binational standard UL 60335-2-40)

Staff Analysis: A review of the standard proposed for inclusion in the code, CSA CSA C22.2 No.60335-2-40 *Household and similar electrical appliances — Safety — Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers (Binational standard UL 60335-2-40)*, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: "Water heater" is not defined in the ISPSC, but it is a defined term in the IMC/IPC. The referenced devices are more accurately referred to as "Pool and Spa Heaters" as witnessed by the titles of the referenced standards. Removed the reference to storage tanks because none of the referenced standards apply to storage tanks other than solar system, where they are a component as already included in Table 316.2(2). Updated standard reference for heat pump pool and spa heaters to remove standards which will be sunsetted by publication date of 2027 ISPSC.

This proposal is submitted by the ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC) PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 PMGCAC has held 26 virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal simply clarifies existing requirements. There is no technical change and therefore there are no changes to labor and materials that would impact the cost of construction.

SP19-24

ISPSC: SECTION 202, SECTION 202 (New), SECTION 325, 325.1, 325.2, 325.7.2, 325.3 (New), 325.3, 325.5 (New), 325.4, 325.5, 325.6, 325.7, 325.9.1, 325.7.1, 325.7.2.1, 325.9.2.1 (New), 325.8.2.2 (New), SECTION 326 (New), 326.1 (New), 325.8, 326.2.1 (New), 326.2.2 (New), 325.8.1, 326.3.1 (New), 326.3.2 (New), 325.8.1.1, 325.8.2, 326.4.1 (New), 325.8.2.1, 325.8.2.2, 325.8.2.3, 325.10, 325.11, 326.8.1 (New), 326.8.2 (New), 325.12, SECTION 327 (New), 327.1 (New), 325.9, 327.2.1 (New), 327.2.2 (New), 327.2.3 (New), 325.9.2

Proponents: Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Swimming Pool and Spa Code

SECTION 202
DEFINITIONS

Add new definition as follows:

CHEMICAL STORAGE SPACE. A room dedicated for storing pool or spa chemicals.

Revise as follows:

EQUIPMENT ROOM. A space intended for the operation of pool or spa pumps, filters, heaters, and controllers. This space is not intended for the storage of hazardous pool or spa chemicals.

SECTION 325
EQUIPMENT ROOMS

Revise as follows:

325.1 General. The provisions of this section apply to public pools and spas and aquatic recreation facilities.

Exception: Equipment rooms for other purposes and equipment not serving the pool, spa or aquatic recreation facility shall be in accordance with the *International Mechanical Code*.

Delete and substitute as follows:

~~**325.2 Requirements.** The equipment area or room floor shall be of concrete or other suitable material having a smooth slip-resistant finish and have positive drainage, including a sump drain pump, if necessary. Floors shall have a slope toward the floor drain or sump drain pump adequate to prevent standing water at all times. The opening to the equipment room or area shall be designed to provide access for all anticipated equipment. At least one hose bibb with backflow preventer shall be located in the equipment room or allow for access within an adequate distance of the equipment room so that a hose can service the entire room.~~

325.2 Floor Requirements. The floor of the equipment room shall be of concrete or other nonabsorbent material having a smooth slip-resistant finish. The floor shall have positive drainage with a slope toward the floor drain or sump drain pump to prevent standing water.

~~**325.7.2 Indoor aquatic facility access.** Where a door or doors are installed in a wall between an equipment room and an indoor aquatic facility, the floor of the equipment room shall slope back into the equipment room in such a way as to prevent any equipment room spills from running under the door into the indoor aquatic facility. This requirement shall be accomplished by one of the following:~~

1. ~~A floor all of which is at least 4 inches (102 mm) below the level of the nearest part of the indoor aquatic facility floor.~~
2. ~~A continuous dike not less than 4 inches (102 mm) high located entirely within the equipment room, which will prevent spills from reaching the indoor aquatic facility floor.~~

325.2.1 Indoor aquatic facility equipment room floor requirements. Where doors are installed in a wall between an equipment room and an indoor aquatic facility, the floor of the equipment room shall slope back into the equipment room to prevent any equipment room spills from entering the indoor aquatic facility. This requirement shall be accomplished by one of the following:

1. A floor all of which is at least 4 inches (102 mm) below the level of the nearest part of the indoor aquatic facility floor.
2. A continuous dike not less than 4 inches (102 mm) high located entirely within the equipment room, which will prevent spills from reaching the indoor aquatic facility floor.
3. Installation of floor drains.

Add new text as follows:

325.3 Hose bibbs. A minimum of one hose bibb with backflow preventer shall be installed in the equipment room or within 25 feet of the equipment room door opening so that a hose can service the entire room.

Revise as follows:

325.4 ~~325.3~~ Construction tolerances. The size of the equipment room ~~or area~~ shall provide working space to perform routine operations and equipment service. Equipment rooms ~~also intended~~ which include ~~for~~ storage, shall have ~~adequate~~ the required space provided for such storage, without reducing the working spaces. ~~Equipment rooms or areas shall be lighted to provide 30 foot candles (323 lux) of illumination at floor level.~~ The opening to the equipment room shall be large enough in size to provide access for all equipment.

Add new text as follows:

325.5 Lighting. Equipment rooms shall be lighted to provide 30 foot-candles (323 lux) of illumination at floor level.

Revise as follows:

325.6 ~~325.4~~ Electrical. All electrical wiring shall be installed in accordance with NFPA 70.

325.7 ~~325.5~~ Ventilation. Equipment room ventilation shall address all of the following:

1. Combustion requirements.
2. Heat dissipation from equipment.
3. Humidity from surge or balance tanks.
4. Ventilation to the outside.
5. Air quality.

325.8 ~~325.6~~ Markings. All piping in the equipment room shall be permanently identified by its use and the pool or spa it serves. Identification shall be provided for all of the following:

1. Main drains and skimmer lines.
2. Filtered water.
3. Make-up water
4. Chlorine (or disinfection) feeds.
5. Acid (or pH) feeds.
6. Compressed air lines.
7. *Gutter* lines.
8. Chemical sample piping.

9. Pool heating lines.

All piping shall be marked with directional arrows as necessary to determine flow direction and all valves shall be clearly identified ~~by number~~ with a brass tag, plastic laminate tag or permanently affixed alternative. Valves shall be identified and described as to their function and referenced in the operating instruction manual.

325.9 ~~325.7~~ Separation from chemical storage spaces. ~~Combustion~~ Fuel-fired equipment, air-handling equipment, and electrical equipment shall not ~~be exposed to air contaminated with corrosive chemical fumes or vapors. Spaces containing combustion equipment, air-handling equipment or electrical equipment and spaces~~ share~~ing~~ air distribution with chemical storage spaces.~~containing such equipment shall not be used as chemical storage spaces at the same time unless the equipment is listed and labeled for use in that atmosphere.. Spaces containing combustion equipment, air-handling equipment, or electrical equipment and spaces sharing air distribution with spaces containing such equipment shall be isolated from chemical storage space air.~~

Delete without substitution:

~~**325.9.1 Signage.** In addition to the signs on all chemical storage areas, a sign shall be posted on the exterior of the entry door stating "DANGER - GASEOUS OXIDIZER - OZONE" in lettering not less than 4 inches (102 mm) high.~~

Revise as follows:

325.9.1 ~~325.7.1~~ Doors and openings. A door or opening ~~doors~~ shall not be installed in a wall between such equipment rooms and an interior chemical storage space. There shall be no ducts, grilles, pass-throughs, or other openings connecting such equipment rooms to chemical storage spaces~~, except as permitted by the *International Fire Code*~~.
~~Spaces containing combustion equipment, air-handling equipment, or electrical equipment and spaces sharing air distribution with spaces containing such equipment shall be isolated from indoor aquatic facility air unless the equipment is listed for the atmosphere. There shall be no ducts, grilles, pass-throughs, or other openings connecting such spaces to an indoor aquatic facility.~~

~~Ducts that connect the indoor aquatic facility to the duct connections of air handlers shall not be construed as connecting the air-handler space to the indoor aquatic facility unless HVAC equipment is rated for indoor aquatic facility atmosphere and serves only that indoor aquatic facility.~~

~~Where building construction leaves any openings or gaps between floors and walls, or between walls and other walls, or between walls and ceilings, such gaps shall be permanently sealed against air leakage.~~

325.9.2 ~~325.7.2.1~~ Automatic closer and lock. A door between an equipment room and an indoor aquatic facility shall be equipped with an automatic closer and automatic lock~~. The door, frame, and automatic closer shall be installed so as to ensure that the door~~ that closes the door completely and latches without human assistance.The automatic lock shall require a key or combination to open from the indoor aquatic facility side. The lock shall be designed and installed to be opened by one hand from the inside of the room under all circumstances, without the use of a key or tool.~~Such doors shall be equipped with permanent signage warning against unauthorized entry. All sides of such doors shall be equipped with a gasket. The gasket shall be installed to prevent the passage of air, fumes, or vapors when the door is closed.~~

Add new text as follows:

325.9.2.1 Signage. A door between an equipment room and an indoor aquatic facility shall be equipped with permanent signage warning against unauthorized entry.

325.8.2.2 Gaskets. All sides of doors between an equipment room and an indoor aquatic facility shall be equipped with a gasket to prevent the passage of air, fumes, or vapors when the door is closed.

SECTION 326
CHEMICAL STORAGE SPACE

326.1 General. The provisions of this section apply to public pools and spas and aquatic recreation facilities.

Revise as follows:

326.2 ~~325.8~~ Chemical storage space. At least one space dedicated to chemical storage space shall be provided to allow safe storage of pool and spa chemicals. In all chemical storage spaces, an emergency eyewash station shall be provided. The construction of a chemical storage space shall ~~take into account foreseeable hazards and~~ protect the stored materials against tampering, wildfires, unintended exposure to water and the transfer of fumes into any interior space of a building intended for occupation. ~~Any walls, floors, doors, ceilings, and other building surfaces of an interior chemical storage space shall join each other tightly.~~
~~If chemicals are to be stored outdoors, they shall be stored in a well-ventilated protective area with an installed barrier to prevent unauthorized access. Exterior chemical storage spaces not joined to a wall of a building shall be completely enclosed by fencing that is at least 6 feet high (1829 mm). Fencing shall be equipped with a self-closing and self-latching gate having a permanent locking device.~~

Add new text as follows:

326.2.1 Interior chemical storage space. Any walls, floors, doors, ceilings, and other building surfaces of an interior chemical storage space shall be sealed. There shall be no transfer grille, pass-through grille, louver, or other device or opening that will allow air movement from the chemical storage space into any other interior space of a building.

326.2.2 Outdoor chemical storage space. Where chemicals are to be stored outdoors, they shall be stored in a ventilated protective area with an installed barrier to prevent unauthorized access. Exterior chemical storage spaces not joined to a wall of a building shall be completely enclosed by fencing that is at least 6 feet high (1829 mm). Fencing shall be equipped with a self-closing and self-latching gate having a permanent locking device.

Revise as follows:

326.3 ~~325.8.1 Chemical storage space doors~~ Doors and openings. All doors opening into chemical storage spaces shall be equipped with permanent signage having all of the following:

1. A warning against unauthorized entry.
2. Statement of the ~~expected~~ hazards.
3. Statement of the location of the associated safety data sheet forms.
4. Product chemical hazard NFPA chart.

~~Where a single door is the only means of egress from a chemical storage space, the door shall be equipped with an emergency-egress device. Where a chemical storage space door must open to an interior space, spill containment shall be provided to prevent spilled chemicals from leaving the chemical storage space and the door shall not open to a space containing combustion equipment, air-handling equipment, or electrical equipment.~~

Add new text as follows:

326.3.1 Emergency-egress. Where a single door is the only means of egress from a chemical storage space, the door shall be equipped with an emergency-egress device.

326.3.2 Spill containment. Where a chemical storage space door opens to an interior space, spill containment shall be provided to prevent spilled chemicals from leaving the chemical storage space.

Revise as follows:

326.3.3 ~~325.8.1.1~~ Interior opening doors. Where a chemical storage space door ~~must~~ opens to an interior space, such door shall ~~have~~ meet all of the following requirements:

1. Constructed of corrosion-resistant materials.

2. Equipped with a corrosion-resistant, automatic lock to prevent unauthorized entry.
   2.1. Such lock shall require a key or combination to open from the outside into the chemical storage space.
   2.2. Such lock shall be designed and installed as to be capable of being opened by one hand from the inside of the chemical storage space without the use of a key or tool.
3. Supported on corrosion-resistant hinges, tracks, or other supports.
4. Equipped with ~~suitable~~ gaskets or seals on the top and all sides to ~~minimize~~ prevent air leakage between the door and the door frame.
5. Equipped with a floor or threshold seal to ~~minimize~~ prevent air leakage between the door and the floor or threshold.
6. Equipped with an automatic door closer that will completely close the door and latch without assistance ~~and against the specified difference in air pressure~~.
7. Equipped with a limit switch and an alarm that will sound if the door remains open for more than 30 minutes. The alarm shall have a minimum output level of 85 dbA at 10 feet (2028 mm).

326.4 32~~5.8.2~~ Interior chemical storage space~~s~~ ventilation. ~~There shall be no transfer grille, pass-through grille, louver, or other device or opening that will allow air movement from the chemical storage space into any other interior space of a building intended for occupancy or into another chemical storage space.~~
Interior chemical storage spaces that share any building surface with any other interior space shall be equipped with a ventilation system that operates continuously and ensures that all air movement is from all other interior space and toward the chemical storage space.

Interior chemical storage spaces that share an electrical conduit system with any other interior space shall be equipped with a ventilation system that operates continuously and ensures that all air movement is from all other interior spaces and toward the chemical storage space. This pressure difference shall be maintained by a continuously operated exhaust system used for no other purpose than to remove air from that one chemical storage space.

~~Where more than one chemical storage space is present, a separate exhaust system shall be provided for each chemical storage space. The exhaust airflow rate shall be the amount specified in the *International Mechanical Code*. The function of this exhaust system shall be monitored continuously by an audible differential-pressure alarm system that shall sound if the specified differential air pressure is not maintained for a period of 30 minutes. This alarm shall have a minimum output level of 85 dbA at 10 feet (3048 mm) and shall require manual reset to silence it.~~

Add new text as follows:

326.4.1 Multiple exhaust systems. Where more than one chemical storage space exists, a separate exhaust system shall be installed for each space. An audible differential-pressure alarm system that sounds if the specified differential air pressure is not maintained for a period of 30 minutes shall be provided for each chemical storage space. The alarm shall have a minimum output level of 85 dbA at 10 feet (3048 mm) and shall require manual reset. The exhaust airflow rate shall be the amount specified in the International Mechanical Code.

Delete and substitute as follows:

~~**325.8.2.1 Air ducts in interior chemical storage spaces.** No duct shall allow air movement from the chemical storage space into any other interior space of a building intended for occupation or into any other chemical storage space.~~
~~Air ducts shall not enter or pass through an interior chemical storage space unless it is a corrosion-resistant duct used for no other purpose than to exhaust air from the chemical storage space. This corrosion-resistant duct must exhaust to the exterior and must end at a point on the exterior of the building, at least 20 feet (6096 mm) from any air intake for breathing air, cooling air, or combustion air.~~

~~A duct used for no other purpose than to supply makeup air to the chemical storage area shall be acceptable. This makeup air supply duct must end at a point on the exterior of the building, at least 20 feet (6096 mm) from any air intake for breathing air, cooling air, or combustion air.~~

~~Any other ducts specifically allowable by the *International Mechanical Code* where such ducts are corrosion resistant and free of joints to the extent feasible shall be acceptable.~~

326.4.2 Air ducts in interior chemical storage spaces. Air ducts shall not enter or pass through an interior chemical storage space.

Exceptions:

1. A corrosion-resistant duct used for no other purpose than to exhaust air from the chemical storage space. The corrosion-resistant duct shall exhaust to the exterior and shall terminate at a point on the exterior of the building, at least 20 feet (6096 mm) from any air intake or combustion air intake.
2. A duct used to supply makeup air to the chemical storage area shall be acceptable.

Revise as follows:

326.5 ~~325.8.2.2~~ Pipes and tubes in interior chemical storage spaces. Piping, tubes, drain bodies, grates, and attachment and restraint devices shall be corrosion resistant including floor drain bodies and grates. All wall penetrations shall be sealed airtight. Sealing materials shall be compatible with the wall assembly and the chemical environment present. Pipes and tubes shall not enter or pass through an interior chemical storage space.

Exceptions:

1. As required to service devices integral to the function of the chemical storage space, such as pumps, vessels, controls, freeze protection, and safety devices.
2. As required to allow for automatic fire suppression.
3. As required for drainage.

~~Piping, tubes, drain bodies, grates, and attachment and restraint devices shall be corrosion resistant and rated for the chemical environment(s) present, including floor drain bodies and grates. All wall penetrations shall be sealed air tight and commensurate with the rating of the wall assembly. Sealing materials shall be compatible with the wall assembly and the chemical environment(s) present.~~

326.6 ~~325.8.2.3~~ ~~Combustion~~ Fuel-fired equipment in interior chemical storage. No ~~combustion device or~~ fuel-fired appliance shall be installed in a chemical storage space, or in any other place where it will be exposed to the air from a chemical storage space.

~~**Exceptions:** A combustion device or appliance that meets all of the following requirements shall be acceptable:~~

1. ~~The device or appliance is required for one or more processes integral to the function of the room, such as space heat.~~
2. ~~The device is listed for such use.~~
3. ~~The device as installed is *approved*.~~

326.7 ~~325.10~~ Gaseous chlorination space. Use of compressed chlorine gas shall be prohibited for new construction and after substantial *alteration* to existing facilities.

326.8 ~~326.11~~ Windows. Windows shall comply with Sections 326.8.1 and 326.8.2.~~Where windows are installed in an interior wall, ceiling, or door of a chemical storage space, such windows shall have the following components:~~

1. ~~Tempered or plasticized glass.~~
2. ~~A corrosion-resistant frame.~~
3. ~~Incapable of being opened or operated.~~

~~Where windows are installed in an exterior wall or ceiling, such windows shall:~~

1. ~~Be mounted in a corrosion-resistant frame.~~
2. ~~Be protected by a roof, eave, or permanent awning as to minimize the entry of rain or snow in the event of window breakage.~~

Add new text as follows:

326.8.1 Interior windows. Where windows are installed in an interior wall, ceiling, or door of a chemical storage space, such windows shall have the following components:

1. Tempered or plasticized glass.
2. A corrosion-resistant frame.
3. Incapable of being opened or operated.

326.8.2 Exterior windows. Where windows are installed in an exterior wall or ceiling, such windows shall:

1. Be mounted in a corrosion-resistant frame.
2. Be protected by a roof, eave, or permanent awning as to minimize the entry of rain or snow in the event of window breakage.

Revise as follows:

326.9 ~~326.12~~ Sealing and blocking materials. Materials used for sealing and blocking openings in an interior chemical storage space shall:

1. Minimize the leakage of air, vapors, or fumes from the chemical storage space.
2. Be compatible for use in the environment.
3. Be commensurate with the fire rating assembly in which they are installed.

Add new text as follows:

SECTION 327
OZONE EQUIPMENT ROOMS

327.1 General. The provisions of this section apply to public pools and spas and aquatic recreation facilities.

Revise as follows:

327.2 ~~325.9~~ Ozone equipment rooms. An ozone equipment room shall not be used for storage of chemicals, solvents, or any combustible materials, other than those required for the operation of the recirculation and ozone-generating equipment. Where an equipment room includes ozone equipment, the equipment room shall meet the requirements of Sections 327.2.1 through 327.2.4. ~~Rooms that are designed to include ozone equipment shall be equipped with an emergency ventilation system capable of 6 air changes per hour. The exhaust intake shall be located 6 inches (152 mm) from the floor, on the opposite side of the room from the make-up air intake.~~

~~The emergency ventilation system shall be so arranged as to run on command of an ozone leak alarm or on command of a manual switch. The manual emergency ventilation switch shall be located outside the room and near the door to the ozone room.~~
~~Ozone rooms which are below grade shall be equipped with force-draft ventilation capable of 6 changes per hour. The exhaust intake shall be located 6 inches (152 mm) from the floor, on the opposite side of the room from the make-up air intake. Such ventilation shall be so arranged as to:~~

1. ~~Run automatically concurrent with the ozone equipment and for at least a time allowing for 15 air changes after the ozone equipment is stopped.~~
2. ~~Run on activation of the ozone detection and alarm system.~~
3. ~~Run on command of a manual switch.~~

~~The manual ventilation switch shall be located outside the room and near the door to the ozone room.~~

Add new text as follows:

327.2.1 Emergency mechanical ventilation. Ozone equipment rooms shall be equipped with an emergency mechanical ventilation system capable of 6 air changes per hour. An exhaust intake shall be located 6 inches (152 mm) from the floor, on the opposite side of the room from the make-up air intake. The emergency mechanical ventilation system shall be installed to run on command of an ozone-leak alarm or manual switch. Where a manual switch is installed, the manual switch shall be located outside the door to the ozone equipment room.

327.2.2 Ozone rooms below grade. Ozone rooms below grade shall be equipped with mechanical ventilation capable of 6 changes per hour. The exhaust intake shall be located 6 inches (152 mm) from the floor, on the opposite side of the room from the make-up air intake. The mechanical ventilation shall be installed to meet all the following requirements:

1. Run automatically concurrent with the ozone equipment and for a minimum 15 air changes after the ozone equipment is stopped.
2. Run on activation of the ozone detection and alarm system.
3. Run on command of a manual switch located outside the door to the ozone equipment room.

327.2.3 Signage. A sign shall be posted on the exterior of an ozone equipment room entry door stating “DANGER - GASEOUS OXIDIZER -- OZONE” in lettering not less than 4 inches (102 mm) high.

Revise as follows:

327.2.4 ~~325.9.2~~ Ozone detection and Alarm ~~alarm~~ system. ~~Rooms containing ozone-generation equipment shall be equipped with an audible and visible ozone detection and alarm system.~~

~~The alarm system shall consist of both an audible alarm capable of producing at least 85 decibels at a 10-foot (3048 mm) distance and a visible alarm consisting of a flashing light mounted in plain view of the entrance to the ozone equipment room.~~

~~The ozone sensor shall be located at a height of 18-24 inches (457-610 mm) above floor level. The ozone sensor shall be capable of measuring ozone in the range of 0-2 ppm.The alarm system shall activate when the ozone concentration equals or exceeds 0.1 ppm in the room. Activation of the alarm system shall shut off the ozone-generating equipment and turn on the emergency ventilation system.~~An ozone detection and alarm system shall be installed in accordance with all of the following

1. Activate when the ozone concentration equals or exceeds 0.1 ppm in the ozone equipment room.
2. Shut off the ozone-generating equipment and turn on the emergency mechanical ventilation system.
3. Provide an audible alarm producing a minimum 85 decibels at a 10-foot (3048 mm) distance.
4. Provide a visible alarm consisting of a flashing light mounted in plain view of the entrance to the ozone equipment room.
5. Provide an ozone sensor that can measure ozone in the range of 0-2 ppm and located at a height of 18-24 inches (457-610 mm) above floor level.

Reason: The proposal is intended to clean-up the current ISPSC language to provide clarity of what is required and remove language that is duplicative or that does not provide specific requirements. Further, the proposal separates the current section into two separate sections, one for equipment rooms and one for chemical storage spaces. It also provides for more subsections to add clarity and moves same subject requirements to be together in one place.

This proposal does not make any technical changes. It simply makes the current requirements clearer for the code user and removes any language that is not a requirement that the code user can follow or enforced.For better understanding of the results of those changes shown in this proposal, the following "clean" code text is provided:

SECTION 202

DEFINITIONS

CHEMICAL STORAGE SPACE.

A room dedicated for storing pool or spa chemicals.

EQUIPMENT ROOM. A space intended for the operation of pool or spa pumps, filters, heaters, and controllers. This space is not intended for the storage of hazardous pool or spa chemicals.

SECTION 325

EQUIPMENT ROOMS

325.1 General. The provisions of this section apply to public pools and spas and aquatic recreation facilities.

Exception: Equipment rooms for other purposes and equipment not serving the pool, spa or aquatic recreation facility shall be in accordance with the *International Mechanical Code.*

325.2 Floor Requirements. The floor of the equipment room shall be of concrete or other nonabsorbent material having a smooth slip-resistant finish. The floor shall have positive drainage with a slope toward the floor drain or sump drain pump to prevent standing water.

325.2.1 Indoor Aquatic Facility Equipment Room Floor Requirements. Where a door is installed in a wall between an equipment room and an indoor aquatic facility, the floor of the equipment room shall slope back into the equipment room to prevent any equipment room spills from entering the indoor aquatic facility. This requirement shall be accomplished by one of the following:

1. A floor at least 4 inches (102 mm) below the level of the nearest part of the indoor aquatic facility floor.

2. A continuous dike not less than 4 inches (102 mm) high located entirely within the equipment room.

3. Installation of floor drains.

325.3 Hose bibbs. A minimum of one hose bibb with backflow preventer shall be installed in the equipment room or within 25 feet of the equipment room door opening so that a hose can service the entire room.

325.4 Construction tolerances. The size of the equipment room shall provide working space to perform routine operations and equipment service. Equipment rooms which include storage, shall have the required space provided for such storage, without reducing the working spaces. The opening to the equipment room shall be large enough in size to provide access for all equipment.

325.5 Lighting. Equipment rooms shall be illuminated to provide 30 foot-candles (323 lux) of illumination at floor level.

325.6 Electrical. All electrical wiring shall be installed in accordance with NFPA 70.

325.7 Ventilation. Equipment room ventilation shall address all of the following:

1. Combustion requirements.
2. Heat dissipation from equipment.
3. Humidity from surge or balance tanks.
4. Ventilation to the outside.
5. Air quality.

325.8 Markings. All piping in the equipment room shall be permanently identified by its use and the pool or spa it serves. Identification shall be provided for all of the following:

1. Main drains and skimmer lines.
2. Filtered water.
3. Make-up water
4. Chlorine (or disinfection) feeds.
5. Acid (or pH) feeds.
6. Compressed air lines.
7. Gutter lines.

8. Chemical sample piping.

9. Pool heating lines.

All piping shall be marked with directional arrows to determine flow direction and all valves shall be clearly identified with a brass tag, plastic laminate tag or permanently affixed alternative. Valves shall be identified and described as to their function and referenced in the operating instruction manual.

325.9 Separation from chemical storage spaces. Fuel-fired equipment, air-handling equipment, and electrical equipment shall not share air distribution with chemical storage spaces.

325.9.1 Doors and openings. A door or opening ~~doors~~ shall not be installed in a wall between such equipment rooms and an interior chemical storage space. There shall be no ducts, grilles, pass-throughs, or other openings connecting such equipment rooms to chemical storage spaces.

325.9.2 Automatic closer and lock. A door between an equipment room and an indoor aquatic facility shall be equipped with an automatic closer and automatic lock that closes the door completely and latches without human assistance. The automatic lock shall require a key or combination to open from the indoor aquatic facility side. The lock shall be designed and installed to be opened by one hand from the inside of the room under all circumstances, without the use of a key or tool.

325.9.2.1 Signage. A door between an equipment room and an indoor aquatic facility shall be equipped with permanent signage warning against unauthorized entry.

325.9.2.2 Gaskets. All sides of doors between an equipment room and an indoor aquatic facility shall be equipped with a gasket to prevent the passage of air, fumes, or vapors when the door is closed.

SECTION 326

CHEMICAL STORAGE SPACE

326.1 General. The provisions of this section apply to public pools and spas and aquatic recreation facilities.

326.2 Chemical storage space. At least one space dedicated to chemical storage space shall be provided to allow safe storage of pool and spa chemicals. In all chemical storage spaces, an emergency eyewash station shall be provided. The construction of a chemical storage space shall protect the stored materials against tampering, wildfires, unintended exposure to water and the transfer of fumes into any interior space of a building intended for occupation.

326.2.1 Interior chemical storage space. Any walls, floors, doors, ceilings, and other building surfaces of an interior chemical storage space shall be sealed. There shall be no transfer grille, pass-through grille, louver, or other device or opening that will allow air movement from the chemical storage space into any other interior space of a building.

326.2.2 Outdoor chemical storage space. Where chemicals are to be stored outdoors, they shall be stored in a ventilated protective area with an installed barrier to prevent unauthorized access. Exterior chemical storage spaces not joined to a wall of a building shall be completely enclosed by fencing that is at least 6 feet high (1829 mm). Fencing shall be equipped with a self-closing and self-latching gate having a permanent locking device.

326.3 Doors and openings. All doors opening into chemical storage spaces shall be equipped with permanent signage having all ~~of~~ the following:

1. A warning against unauthorized entry.

2. Statement of the hazards.

3. Statement of the location of the associated safety data sheet forms.

4. Product chemical hazard NFPA chart.

326.3.1 Emergency-egress. Where a single door is the only means of egress from a chemical storage space, the door shall be equipped with an emergency-egress device.

326.3.2 Spill containment. Where a chemical storage space door opens to an interior space, spill containment shall be provided to prevent spilled chemicals from leaving the chemical storage space.

326.3.3 Interior opening doors. Where a chemical storage space door opens to an interior space, such door shall meet all of the following requirements:

1. Constructed of corrosion-resistant materials.

2. Equipped with a corrosion-resistant, automatic lock to prevent unauthorized entry.

2.1. Such lock shall require a key or combination to open from the outside into the chemical storage space.

2.2. Such lock shall be designed and installed as to be capable of being opened by one hand from the inside of the chemical storage space without the use of a key or tool.

3. Supported on corrosion-resistant hinges, tracks, or other supports.

4. Equipped with gaskets or seals on the top and all sides to prevent air leakage between the door and the door frame.

5. Equipped with a floor or threshold seal to prevent air leakage between the door and the floor or threshold.

6. Equipped with an automatic door closer that will completely close the door and latch without assistance.

7. Equipped with a limit switch and an alarm that will sound if the door remains open for more than 30 minutes. The alarm shall have a minimum output level of 85 dbA at 10 feet (2028 mm).

326.4 Interior chemical storage spaces ventilation. Interior chemical storage spaces that share any building surface with any other interior space shall be equipped with a ventilation system that operates continuously and ensures that all air movement is from all other interior space and toward the chemical storage space. Interior chemical storage spaces that share an electrical conduit system with any other interior space shall be equipped with a ventilation system that operates continuously and ensures that all air movement is from all other interior spaces and toward the chemical storage space. This pressure difference shall be maintained by a continuously operated exhaust system used for no other purpose than to remove air from that one chemical storage space.

326.4.1 Multiple exhaust systems. Where more than one chemical storage space exists, a separate exhaust system shall be installed for each space. An audible differential-pressure alarm system that sounds if the specified differential air pressure is not maintained for a period of 30 minutes shall be provided for each chemical storage space. The alarm shall have a minimum output level of 85 dbA at 10 feet (3048 mm) and shall require manual reset. The exhaust airflow rate shall be the amount specified in the International Mechanical Code.

326.4.2 Air ducts in interior chemical storage spaces. Air ducts shall not enter or pass through an interior chemical storage space.

Exceptions:

1. A corrosion-resistant duct used for no other purpose than to exhaust air from the chemical storage space. The corrosion-resistant duct shall exhaust to the exterior and shall terminate at a point on the exterior of the building, at least 20 feet (6096 mm) from any air intake or combustion air intake.

2. A duct used to supply makeup air to the chemical storage area shall be acceptable.

326.5 Pipes and tubes in interior chemical storage spaces. Piping, tubes, drain bodies, grates, and attachment and restraint devices shall be corrosion resistant, including floor drain bodies and grates. All wall penetrations shall be sealed airtight. Sealing materials shall be compatible with the wall assembly and the chemical environment present. Pipes and tubes shall not enter or pass through an interior chemical storage space.

Exceptions:

1. As required to service devices integral to the function of the chemical storage space, such as pumps, vessels, controls, freeze protection, and safety devices.

2. As required to allow for automatic fire suppression.

3. As required for drainage.

326.6 Fuel-fired equipment in interior chemical storage. No fuel-fired appliance shall be installed in a chemical storage space, or in any other place where it will be exposed to the air from a chemical storage space.

326.7 Gaseous chlorination space. Use of compressed chlorine gas shall be prohibited for new construction and after substantial alteration to existing facilities.

326.8 Windows. Windows shall comply with Sections 326.8.1 and 326.8.2.

326.8.1 Interior windows. Where windows are installed in an interior wall, ceiling, or door of a chemical storage space, such windows shall have the following components:

1. Tempered or plasticized glass.

2. A corrosion-resistant frame.

3. Incapable of being opened or operated.

326.8.2 Exterior windows. Where windows are installed in an exterior wall or ceiling, such windows shall:

1. Be mounted in a corrosion-resistant frame.

2. Be protected by a roof, eave, or permanent awning as to minimize the entry of rain or snow in the event of window breakage.

326.9 Sealing and blocking materials. Materials used for sealing and blocking openings in an interior chemical storage space shall:

1. Minimize the leakage of air, vapors, or fumes from the chemical storage space.

2. Be compatible for use in the environment.

3. Be commensurate with the fire rating assembly in which they are installed.

SECTION 327

OZONE EQUIPMENT ROOMS

327.1 General. The provisions of this section apply to public pools and spas and aquatic recreation facilities.

327.2 Ozone equipment rooms. An ozone equipment room shall not be used for storage of chemicals, solvents, or any combustible materials, other than those required for the operation of the recirculation and ozone-generating equipment. Where an equipment room includes ozone equipment, the equipment room shall meet the requirements of Sections 327.2.1 through 327.2.4.

327.2.1 Emergency mechanical ventilation. Ozone equipment rooms shall be equipped with an emergency mechanical ventilation system capable of 6 air changes per hour. An exhaust intake shall be located 6 inches (152 mm) from the floor, on the opposite side of the room from the make-up air intake. The emergency mechanical ventilation system shall be installed to run on command of an ozone-leak alarm or manual switch. Where a manual switch is installed, the manual switch shall be located outside the door to the ozone equipment room.

327.2.2 Ozone rooms below grade. Ozone rooms below grade shall be equipped with mechanical ventilation capable of 6 changes per hour. The exhaust intake shall be located 6 inches (152 mm) from the floor, on the opposite side of the room from the make-up air intake. The mechanical ventilation shall be installed to meet all the following requirements:

1. Run automatically concurrent with the ozone equipment and for a minimum 15 air changes after the ozone equipment is stopped.

2. Run on activation of the ozone detection and alarm system.

3. Run on command of a manual switch located outside the door to the ozone equipment room.

327.2.3 Signage. A sign shall be posted on the exterior of an ozone equipment room entry door stating “DANGER - GASEOUS OXIDIZER -- OZONE” in lettering not less than 4 inches (102 mm) high.

327.2.4 Ozone detection and alarm system. An ozone detection and alarm system shall be installed in accordance with all of the following:

1. Activate when the ozone concentration equals or exceeds 0.1 ppm in the ozone equipment room.

2. Shut off the ozone-generating equipment and turn on the emergency mechanical ventilation system.

3. Provide an audible alarm producing a minimum 85 decibels at a 10-foot (3048 mm) distance.

4. Provide a visible alarm consisting of a flashing light mounted in plain view of the entrance to the ozone equipment room.

5. Provide an ozone sensor that can measure ozone in the range of 0-2 ppm and located at a height of 18-24 inches (457-610 mm) above floor level.

This proposal is submitted by the ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC)

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 PMGCAC has held 26 virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is a reorganization of existing code text. No new technical requirements are being added and thus there is not a impact to labor or material to comply with the code.

SP19-24

SP20-24

ISPSC: 325.5, ACCA (New)

Proponents: Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

325.5 Ventilation. Equipment room ventilation shall comply with ANSI/ACCA 10 Manual SPS and address all of the following:

1. Combustion requirements.
2. Heat dissipation from equipment.
3. Humidity from surge or balance tanks.
4. Ventilation to the outside.
5. Air quality.

Add new standard(s) as follows:

ACCA

Air Conditioning Contractors of America
2800 Shirlington Road, Suite 300
Arlington, VA 22206

ANSI/ACCA 10 Manual SPS--2017 HVAC Design for Swimming Pools and Spas

Staff Analysis: A review of the standard proposed for inclusion in the code, ANSI/ACCA 10 Manual SPS--2017 *HVAC Design for Swimming Pools and Spas*, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: Section 325.5 currently states items that shall be addressed by equipment room ventilation but provides no requirements to inspect or operate an equipment room.

This proposal requires compliance with ANSI/ACCA 10 Manual SPS, which provides HVAC Design for Swimming Pools and Spas that should be applied to equipment room ventilation, clarifying the expected performance of these systems that provide ventilation to these areas.

The cited standard is then added to Chapter 11 of the ISPSC. The ACCA 10 is also cited in the IMC.

Bibliography: Air Conditioning Contractors of America (ACCA), *Manual SPS HVAC Design for Swimming Pools and Spas* [ANSI/ACCA 10 Manual SPS - 2010 (RA 2017)]

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

These requirements are already in place for pool rooms and spaces, including the equipment room. ACCA manual 10 is already referenced as a requirement through International Mechanical Code Section 403.2.1 Recirculation of air. This proposal simply clarifies for code users that this is the standard to comply with in order to meet the requirements in 325.5 of the ISPSC.

SP21-24

ISPSC: SECTION 326

Proponents: Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

SECTION 326
INDOOR AIR QUALITY AND MECHANICAL VENTILATION

Reason: This title change is needed to bring the title of section 326 in line with the referenced code and standard. Section 326 references the International Mechanical Code and ASHRAE 62.1 Standard, which address ventilation systems used to achieve indoor air quality. The minor change in title will help users understand that the focus is on that aspect of achieving indoor air quality.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

It is a title change only. It creates no additional requirements for construction.

SP21-24

SP22-24

ISPSC: SECTION 326, 326.1, ACCA (New)

Proponents: David Crawford Bixby, Air Conditioning Contractors of America (ACCA), ACCA (david.bixby@acca.org)

2024 International Swimming Pool and Spa Code

SECTION 326
INDOOR AIR QUALITY

Revise as follows:

326.1 General. Indoor public pool and spa air-handling system design, construction, and installation shall comply with the requirements of the *International Mechanical Code* or ASHRAE 62.1. The design of ventilation systems serving indoor aquatic facilities shall comply with ACCA 10 Manual SPS.

Add new text as follows:

Add new standard(s) as follows:

ACCA 10 Manual SPS-2010 (RA 2017). HVAC Design for Swimming Pools and Spas

Staff Analysis: A review of the standard proposed for inclusion in the code, ACCA 10 Manual SPS-2010 (RA 2017) *HVAC Design for Swimming Pools and Spas*
, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: Paragraph 403.2.1, *Recirculation of air*, in the 2021 IMC, contains Item 2 which references ANSI/ACCA Manual SPS for design and installation of dehumidification systems. Manual SPS should also be referenced by the ISPSC in terms of maintaining IAQ for enclosed pools and hot tubs. The mechanical system must be designed to continuously control the dew point temperature of space air, then measures are taken to control space temperature. If this is not accomplished, moisture can cause visible and concealed condensation, wet sagging ceilings, wet framing, wet structural surfaces, wet insulation, visible or concealed mold and mildew, corroded or discolored fixtures and finishes, rust, or masonry. Manual SPS is also a consensus-based ANSI approved standard.

Bibliography: ANSI/ACCA 10 Manual SPS – 2010 (RA 2017), *HVAC Design for Swimming Pools and Spas*

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

Due to this standard already being specified and referenced in the 2021 IMC for pool ventilation and dehumidification, this proposal represents a clarification or correlation between the ISPSC and the current IMC.

SP23-24

ISPSC: SECTION 327 (New), 327.1 (New), PHTA Chapter 11 (New)

Proponents: Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Swimming Pool and Spa Code

Add new text as follows:

SECTION 327
OPERATIONS AND MAINTENANCE

327.1 Public pool and spa operation and maintenance. Public pools, public spas and aquatic recreation facilities shall be operated and maintained in accordance with PHTA/ICC-2.

Add new standard(s) as follows:

PHTA

Pool and Hot Tub Alliance
2111 Eisenhower Avenue, Suite 500
Alexandria, VA 22314

ANSI/PHTA/ICC-2-2023 Public pool and spa operations and maintenance

Staff Analysis: A review of the standard proposed for inclusion in the code, PHTA/ICC ANSI/PHTA/ICC-2-2023 *Public pool and spa operations and maintenance*, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: This proposal seeks to incorporate the *ANSI/PHTA/ICC-2 2023 Standard for Public Pool and Spa Operations and Maintenance* into the International Swimming Pool and Spa Code to ensure maintenance and operations requirements and guidance exist for public pools, public spas and aquatic recreation facilities. Seeing that these types of aquatic venues are governed under Chapters 4, 5, and 6, it makes sense to put the requirement under Chapter 3, General Compliance, so it can apply to all three types.

The standard can be access at the following web address: https://issuu.com/thephta/docs/phta-icc-2_2023_standard_04-03-23_digital_pdf-prot

The PHTA-2 is intended to cover public/commercial aquatic venues operation and maintenance, as a resource for jurisdictions seeking guidance on this topic. This Standard can then be used by state and local authorities as a health and safety document for the operation and maintenance of all types of public aquatic venues. Industry partners such as commercial pool and spa service companies, water park operators and public pool operators will then be required to use this Standard as the benchmark for the minimum standards to operate and maintain public aquatic venues. In many states building and health officials regulate public pools and spas together, by adding this Standard into the ISPSC, we are providing one code that covers design, construction, operation and maintenance. This will make it easier for the building and health officials by having all requirements in one place. Further, public health officials can adopt this Standard through adoption of the ISPSC when adopting the Code by reference in their rule or ordinance.

This proposal is submitted by the ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC)

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 PMGCAC has held 26 virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

It doesn’t affect the cost of construction as operation and maintenance occur after the construction permit is closed out. This might increase operational cost as the standard clarifies the minimum proper operation and maintenance which is always part of the pool ownership to provide for safe water conditions.

SP23-24

SP24-24

ISPSC: 409.4, 409.4.1 (New), 409.4.1, 409.4.2, 409.4.3

Proponents: Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

409.4 Lifesaving equipment. Public pool Classes A, B, and C shall be provided with lifesaving equipment in accordance with Sections 409.4.1 through 409.4.~~3~~4. Such lifesaving equipment shall be visually conspicuous and conveniently located at all times.

Add new text as follows:

409.4.1 Rope and Float. Where a pool has a water depth ranging from less than 5 feet (1524 mm) to greater than 5 feet (1524 mm), a rope and float line shall be located a minimum of 1 foot (304 mm.) horizontally from the 5-foot (1524 mm) depth location, toward the shallow end of the pool. The rope and float line shall be securely fastened to wall anchors made of corrosion- resistant material and shall be recessed or have no projection that would constitute a hazard when the line is removed. The line shall have size and strength to support the load of a user using it as a handhold.

Revise as follows:

409.4.2 ~~409.4.1 Accessory~~ Reaching pole. A ~~swimming pool accessory~~ reaching pole not less than 12 feet (3658 mm) in fixed length and including ~~a body hook~~ shepherd's crook securely attached shall be provided.

409.4.3 ~~409.4.2~~ Throwing rope. A throwing rope attached to a ring buoy or similar flotation device shall be provided. The rope shall be not less than $^1/_4$ inch (6.4 mm) in diameter and shall have a length of not less than $1^1/_2$ times the maximum width of the pool or 50 feet (15 240 mm), whichever is less. A ring buoy shall have an outside diameter of not less than 15 inches (381 mm).

409.4.4 ~~409.4.3~~ Emergency response units. Pools covered by this chapter shall be provided with first aid equipment, including a first aid kit. First aid equipment and kits shall be located to allow access.

Reason: There is no requirement in the 2024 ISPSC Chapter 4 for Rope and Float for public pools. Rope and Float is included in Aquatic Facilities Chapter 6 as a safety marking at the 5' to over 5' water depth and at the first slope change. It should be included in this chapter as well.

A provision for removable rope and float and a requirement that anchors not pose a projection into the pool is necessary to provide safety for when a pool is also used for other activities.

The sections have been renumbered to accommodate the addition. To further clarify intent and purpose of the accessory pole the description for fixed length and the recommended name of the hook were added.

Cost Impact: Increase

Estimated Immediate Cost Impact:

$1-1,500 for rope and float, fixed length shepherd's hook, and installation.

Estimated Immediate Cost Impact Justification (methodology and variables):

Cost for a rope and float assembly ($1-100) and shepherd's hook ($1-500) plus estimated cost for installation.

Estimated Life Cycle Cost Impact:

No life cycle cost impact.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

No life cycle cost impact.

SP24-24

SP25-24

ISPSC: 411.1, 411.1.2, 411.1.2.1 (New), 411.1.3

Proponents: Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

411.1 Entry and exit. All public pools shall have a primary means of entry and exit in all shallow areas where the water depth exceeds 24 in. (61.0 cm) at the shallowest point. The means of entry and exit shall be located on the shallow side of any first slope change. A secondary means of entry and exit shall be provided in the deep area of the pool where the water depth exceeds 5 ft (152.4 cm). ~~Pools shall have not less than two means of entry and exit that are located so as to serve both ends of a pool.~~ Pool lifts, transfer walls and transfer systems that provide for pool entry and exit by persons with physical disabilities in accordance with Section 307.1.5 shall not be counted as the means of entry or exit that is required by this section.

411.1.2 Shallow area primary entry and exit. A primary means of entry and exit shall be provided in shallow areas of pools and shall consist of pool stairs, a ramp or a beach entry.

Add new text as follows:

411.1.2.1 Shallow area secondary entry and exit. The secondary means of entry and exit shall consist of any method prescribed in Section 411.1.3.

Exception: A secondary entry and exit shall not be required for shallow only pools when the water surface area is less than 1176 square feet.

Revise as follows:

411.1.3 Deep area secondary entry and exit. The secondary means of entry and exit in the deep area of pools shall consist of one of the following:

1. Steps/stairs.
2. Ladders.
3. Grab rails with recessed treads.
4. Ramps.
5. Beach entries.
6. Swimouts.
7. Other designs that provide the minimum utility as specified in this code.

Reason: This code change is needed to address shallow only pools entry and exiting requirements. The hazard associated with secondary entering and exiting of a deep area are not any different than if the pool is designed as a shallow only pool with no deep area exceeding 5 foot in depth for public pools. The exception further allows for small public pools to only have one means of entry and exit. The 1176 square feet of water surface area equates to an occupancy load of 49. This is being proposed to align secondary exits with other occupancy classification in the IBC for when a second means of egress is required.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

$200-500 per pool for smaller pools (described below) only. No change in cost for pools larger than those described below.

Estimated Immediate Cost Impact Justification (methodology and variables):

This code proposal will decrease construction cost for pools that have a water surface area equal or greater than 1176 square feet or an occupancy load of 49 or less by removing the requirement for a second means of entry and exit.

Cost is for one in ground pool ladder + the estimated cost of installation.

Estimated Life Cycle Cost Impact:

None.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

This proposal will have no effect on costs after first (construction) cost.

SP25-24

SP26-24

ISPSC: 504.2

Proponents: Gregory Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

504.2 Timer. The operation of the hydrotherapy jets shall be limited by a cycle timer having a maximum setting of 15~~10~~ minutes. The cycle timer shall be located not less than 5 feet (1524 mm) away, adjacent to, and within sight of the spa.

Reason: Ten-minute spa timers are largely unavailable on the market. Change in required timer type is needed to accommodate construction.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal makes no substantive change in the requirement to have a timer in a public spa, it merely changes the type of timer that is acceptable.

The former requirement was unable to be met with timers existing on the market. This is a clarification of the existing requirement that accommodates spa construction.

SP27-24

ISPSC: 604.2, TABLE 604.2

Proponents: Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com); Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

604.2 Turnover. Circulation system equipment shall be designed to turn over 100 percent of the nominal pool water volume in the amount of time specified in Table 604.2. Where Class D pools exist in combination with Class A through Class F pools, each element in the pool shall have the turnover time specified in Table 604.2 or elsewhere in this code as if the element functioned as a freestanding pool of that class. The system shall be designed to give the required turnover time based on the manufacturer's recommended maximum pressure and flow of the filter in ~~clean~~dirty media condition.

TABLE 604.2 TURNOVER TIME

CLASS OF POOL	MAXIMUM TURNOVER TIME[a] (hours)
D-1	~~2~~3
D-2 with less than 24 inches water depth	1
D-2 with 24 inches or greater water depth	2
D-3 with every flume ending in a runout, or less than 24 inches average water depth	1
D-3 with 24 to 48 inches average water depth	2
D-3 with greater than 48 inches average water depth	3
D-4	~~2~~3
D-5	1
D-6	1

For SI: 1 inch = 25.4 mm.

a. Pools with a sand bottom require a 1-hour turnover time.

Reason: The code currently combines Class D uses such as slides, lazy rivers and wade pool activities with Class A-C uses, such as diving and lap swimming. The recirculation rate requirement becomes very punitive. The proposal provides clarification that where Class D pools exist in combination with other Class pools, each element in the pool shall be required to have the turnover time specified in Table 604.2 or elsewhere in the code as if that one element was freestanding.

Further, the current turnover time for lazy rivers, wave pools, and waterslide catch pools is too fast. In Florida, where lazy rivers and wave pools are prevalent, it has been 3 hours, without any issues or complaints. Florida has also separated D-3 waterslide catch pools based on water depth at the catch pool where the flume/slide ends, providing different turnover times based on that depth. For example, the FlyTime Slide from SplashTacular, and similar products from other manufacturers, is intended to drop the rider into deep water that is approximately the same dimensions as a diving well. It is therefore punitive and unnecessary to require a 1 hour turnover for an entire diving well volume simply because a slide has been installed next to it.

Therefore, the proposal provides for three categories of D-3 pools based on water depth, with the appropriate turnover based on that depth. It also updates the turnover table to lessen the turnover rate of lazy rivers and wave pools to match Florida requirements.

Bibliography: Sections 454.1.9.2.6.1, 454.1.9.4.3, and 454.1.9.5.3 of the 8th edition Florida Building Code: https://codes.iccsafe.org/content/FLBC2023P1/chapter-4-special-detailed-requirements-based-on-occupancy-and-use#FLBC2023P1_Ch04_Sec454.1

Cost Impact: Decrease

Estimated Immediate Cost Impact:

Based on the change in turnover times and allowance for a Class D pools to have a turnover time based on that exact element alone, the proposal will result in some Class D pools having a longer turnover time than currently required. Longer turnover times then allow for

smaller piping, circulation pumps and filters, which typically cost less than their larger counterparts.

The exact decrease in cost will vary project to project, but could range between $0 and $60,000. A very small Lazy River or Plunge Pool may utilize negligible savings, but a larger feature will realize proportionally more.

Estimated Immediate Cost Impact Justification (methodology and variables):

The methodology to calculate the estimated cost impact is as follows:

On a recent leisure river project built in compliance with the ISPSC, the filtration turnover rate had to be 1250 gpm. This was a medium sized river, approximately 650' long. This code change would allow the flow rate to be reduced to 833 gpm. The filter pipes would be able to be reduced from 10" to 8". The savings from the reduction would depend on local construction conditions and the length of the pipe.

The filters pipes are reduced from 10", which costs about $9,000 per 100', to 8", which costs about $7,000 per 100'. The reduction is $2,000 per 100'. If we assume that the mechanical room is 200' away, and there is a suction run and a discharge run, that would require 400' of pipe and the savings would be $2,000 * (400' / 100') = $8,000.

The pump is reduced from a 40HP pump that costs about $17,000 to 25 HP pump that costs about $12,000. This reduction is about $5,000.

The filter is reduced from an approximate 50" diameter regenerative media tank that costs about $131,000 to an approximate 40" diameter regenerative media tank that costs about $106.000. This reduction is about $25,000.

The savings for this example project, using the variables of the pipe, pump and filter, would be about ($8,000 + $5,000 + $25,000) = $38,000. These numbers may vary by region and by vendor selected. Larger project than this are developed and their savings would be proportionally larger.

SP27-24

SP28-24

ISPSC: TABLE 604.2

Proponents: Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com); Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

TABLE 604.2 TURNOVER TIME

CLASS OF POOL	MAXIMUM TURNOVER TIME[a] (hours)
D-1	2
D-2 with less than 24 inches water depth	1
D-2 with 24 inches or greater water depth	2
D-3	1
D-4	2
D-5	1
D-6	~~1~~0.5

For SI: 1 inch = 25.4 mm.

a. Pools with a sand bottom require a 1-hour turnover time.

Reason: This code proposal decreases the turnover time for D-6 pools (interactive play features, also known as splash pads) to match both the Model Aquatic Health Code and the Florida Code, both of which require a more stringent turnover time of 0.5 hours instead of 1 hour. This is needed due to the typical young age of those using these types of features, requiring greater disinfection.

Bibliography: Section 454.1.9.8.6.1 of the 8th edition Florida Code and 4.7.1.10 of the 2023 Model Aquatic Health Code.

https://codes.iccsafe.org/content/FLBC2023P1/chapter-4-special-detailed-requirements-based-on-occupancy-and-use#FLBC2023P1_Ch04_Sec454.1

https://www.cdc.gov/mahc/pdf/2023-MAHC-508.pdf

Cost Impact: Increase

Estimated Immediate Cost Impact:

For a typical interactive water feature (D-6 pool) that uses a 5,000 gallon system, the increased size of the pump, filter, and pipes that would be required to comply with the change in turnover time would increase costs by approximately $4,650.

Estimated Immediate Cost Impact Justification (methodology and variables):

Most interactive water features (D - 6 pools) have tanks that are between 3,000 and 5,000 gallons in capacity. For a 5,000 - gallon system, the minimum flow rate increases from 5,000 gallons/1 hour (83 gallons per minute) to 5,000 gallons/0.5 hour (167 gallons per minute).

The pumps used to accommodate this increased flow rate are likely to be mass-produced plastic pumps, and the designer would likely double the flow rate by adding a second pump. Pumps this size currently cost about $1500 each.

The filters are also likely to be mass-produced plastic cartridge or sand filters, and the flow of 167 gpm is a bit too large for one of these, so the designer would likely specify a second filter as well. These cartridge filters also cost about $1500 currently.

The suction pipe for the single pump with a 1-hour-turnover was likely a 3" pipe, and the discharge pipe was likely a 2.5" pipe. We estimate that the cost to trench, assemble, and commission 4" pipe is $2,600 per 100', the corresponding cost for 2.5" pipe is $1400. Estimating that the pipe run from the mechanical room to the tank is 50' long, a second 3" suction pipe to serve the second pump costs ($2,100 * 50'/100') = $1050. Then the 2.5" discharge back to the tank becomes a 4" discharge serving both pumps, and that cost increase is ($2600 - $1400) * (50'/100') = $600. Therefore, the total cost estimate for pipe upgrades is $1050 + $600 = $1650.

In this scenario with the design assumptions given, the code change would cost $1500 (pump) +$1500 (filter) + $1650 (pipes) = $4,650.

SP28-24

SP29-24

ISPSC: 604.2.2, APSP Chapter 11 (New)

Proponents: Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

604.2.2 Reduced ~~circulation~~flow rate. ~~The circulation rate~~ The aquatic recreation facility shall be permitted to ~~be~~ reduce~~d~~ the flow rate ~~during periods that the pool is closed for use~~ when not open to bathers and provided ~~that acceptable water clarity conditions are met prior to reopening the pool for public use.~~the water quality is maintained and documented in accordance with APSP-11. Water quality shall be tested and documented prior to opening the aquatic venue to bathers. The reduced ~~circulation~~ flow rate shall not be zero~~.~~ unless approved.

APSP

Pool & Hot Tub Alliance (formerly The Association of Pool & Spa Professionals)
2111 Eisenhower Avenue, Suite 500
Alexandria, VA 22314

ANSI/APSP/ICC 11--2019 American National Standard for Water Quality in Public Pools and Spas

Staff Analysis: A review of the standard proposed for inclusion in the code, ANSI/APSP/ICC 11--2019 *American National Standard for Water Quality in Public Pools and Spas*, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: This change aligns the term "flow rate" which is used in PHTA–2, APSP-11, and the Model Aquatic Health Code (MAHC).

The sanitation and pH guidelines incorporated by reference clarify required operation. These requirements for water quality are required by reference in other sections of the ISPSC and do not change the cost of operation.

Bibliography: ANSI/APSP/ICC-11 American National Standard for Water Quality in Public Pools and Spas

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

It is a language change and clarification to ensure similar terminology ("flow rate" as opposed to "circulation rate") is used in all referenced PHTA standards and the Model Aquatic Health Code.

SP30-24

ISPSC: SECTION 202, 202, SECTION 202 (New), TABLE 604.2, SECTION 613 (New), 613.1 (New), 613.1.1 (New), 613.1.2 (New), ASTM Chapter 11 (New)

Proponents: Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com); Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org)

2024 International Swimming Pool and Spa Code

PUBLIC SWIMMING POOL (Public Pool). A pool, other than a *residential* pool, that is intended to be used for swimming or bathing and is operated by an owner, lessee, operator, licensee or concessionaire, regardless of whether a fee is charged for use. Public pools shall be further classified and defined as follows:

Class A competition pool. A pool intended for use for accredited competitive aquatic events such as Federation Internationale De Natation (FINA), USA Swimming, USA Diving, USA Synchronized Swimming, USA Water Polo, National Collegiate Athletic Association (NCAA), or the National Federation of State High School Associations (NFHS).

Class B public pool. A pool intended for public recreational use that is not identified in the other classifications of public pools.

Class C semi-public pool. A pool operated solely for and in conjunction with lodgings such as hotels, motels, apartments or condominiums.

Revise as follows:

Class D-1 wave action pool. A pool designed to simulate breaking or cyclic waves for purposes of general play ~~or surfing~~.
It does not include a *surf venue*, *surf basin* or *stationary wave system*.

Class D-2 activity pool. A pool designed for casual water play ranging from simple splashing activity to the use of attractions placed in the pool for recreation.

Class D-3 catch pool. A body of water located at the termination of a manufactured waterslide attraction. The body of water is provided for the purpose of terminating the slide action and providing a means for exit to a deck or walkway area.

Class D-4 leisure river. A manufactured stream of water of near-constant depth in which the water is moved by pumps or other means of propulsion to provide a river-like flow that transports bathers over a defined path that may include water features and play devices.

Class D-5 vortex pool. A circular pool equipped with a method of transporting water in the pool for the purpose of propelling riders at speeds dictated by the velocity of the moving stream of water.

Class D-6 interactive play attraction. A manufactured water play device or a combination of water-based play devices in which water flow volumes, pressures or patterns can be varied by the bather without negatively influencing the hydraulic conditions for other connected devices. These attractions incorporate devices or activities such as slides, climbing and crawling structures, visual effects, user-actuated mechanical devices and other elements of bather-driven and bather-controlled play.

Class E. Pools used for instruction, play or therapy and with temperatures above 86°F (30°C).

Class F. Class F pools are wading pools and are covered within the scope of this code as set forth in Section 405.
Public pools are either a diving or nondiving type. Diving types of public pools are classified into types as an indication of the suitability of a pool for use with diving equipment.

Type O. A nondiving public pool.

Types VI–IX. Public pools suitable for the installation of diving equipment by type.

Add new definition as follows:

STATIONARY WAVE SYSTEMS. A system that delivers a constantly flowing sheet of water nominally up to 24 in. thick travelling over a

form allowing for patron interaction with a perpetual wave.

SURF BASIN.
Mechanical devices to generate moving waves with suitable characteristics for surfing and can provide multiple different wave profiles suitable to any level of surfing.

SURF VENUE.
A facility designed to accommodate a large body of water dedicated only to surfing on a surfboard or other similar surfing or wave-riding device, with bathymetry, shape, and design that can use a variety of different mechanisms to generate ocean like surfable waves that shoal and break progressively towards shallow water.

Revise as follows:

TABLE 604.2 TURNOVER TIME

CLASS OF POOL	MAXIMUM TURNOVER TIME[a] (hours)
D-1[b]	2
D-2 with less than 24 inches water depth	1
D-2 with 24 inches or greater water depth	2
D-3	1
D-4	2
D-5	1
D-6	1

For SI: 1 inch = 25.4 mm.

a. Pools with a sand bottom require a 1-hour turnover time.

b. Surf venues, surf basins, and stationary wave systems in compliance with Section 613 are not considered D-1 pools.

Add new text as follows:

SECTION 613
SURF VENUES, SURF BASINS, AND STATIONARY WAVE SYSTEMS

613.1 Surf venues. Surf venues shall comply with Section 613.1.1 or 613.1.2.

613.1.1 SURF basins. Surf basins shall comply with ASTM wk75193.

613.1.2 Stationary wave systems. Stationary wave systems shall comply with ASTM F3133.

Add new standard(s) as follows:

ASTM

ASTM International
100 Barr Harbor, P.O. Box C700
West Conshohocken, PA 19428-2959

F3133–21	Standard Practice for Classification, Design, Manufacture, Construction, Maintenance, and Operation of Stationary Wave Systems
wk75193-xx	Standard Practice for Classification, Design, Manufacture, Construction, Maintenance, and Operation of Controlled Surf(ing) Basins

Staff Analysis: A review of the standards proposed for inclusion in the code, ASTM F3133–21 S*tandard Practice for Classification, Design, Manufacture, Construction, Maintenance, and Operation of Stationary Wave Systems* and ASTM wk75193-xx *Standard Practice for Classification, Design, Manufacture, Construction, Maintenance, and Operation of Controlled Surf(ing) Basins*, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: The ISPSC currently addresses surf pools within Class D-1 wave action pools; however, these are two different types of pools/systems/venues. This proposal clarifies that a D-1 wave action pool is not a surf pool by striking that current wording and at the

same time adding a sentence to clarify that a surf venue, surf basin or stationary wave system is not a D-1 wave action pool.

The proposal then provides new definitions to define a surf venue, surf basin and stationary wave system. These are the terms associated with this rapidly growing facet of the aquatic industry. The surf venue and surf basin definitions are based on industry code and standard work that is currently being worked on. Whereas the stationary wave system definition is based on an approved ASTM standard.

This proposal moves to Chapter 6 to clarify in Table 604.2 that D-1 turnover requirements do not apply to surf venues, surf basins and stationary wave systems that comply with the newly proposed Section 613. This is to ensure D-1 wave pool turnover requirements are not erroneously applied to these surfing areas and systems.

The new section 613 being proposed then requires that surf venues comply with either two subsections. One subsection requires surf basins to comply with the draft ASTM standard currently being developed and the other subsection requires stationary wave systems to comply with the 2021 edition of the ASTM F3133 Standard for such systems.

This proposal is needed to both ensure these increasingly popular surfing venues and devices are a) not confused with wave action pools and their associated requirements and b) to ensure there are appropriate requirements for surf venues, basins and stationary wave system devices to protect those who utilize them. Simply put, unique surfing venues are currently not appropriately captured in the ISPSC. This proposal is a first step in doing so, recognizing that additional design guidelines will need to be added in the future.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

The decrease in cost can range from $40,000 to $2,000,000 per project due to the greater allowance in turnover time by clarifying these products are not wave pools.

Estimated Immediate Cost Impact Justification (methodology and variables):

The cost estimate range considers the filtration cost comparing the filter system required for a 2-hour D-1 wave pool turnover rate to a 6 hour turnover rate.

SP30-24

SP31-24

ISPSC: CHAPTER 7, SECTION 701, 701.1, 701.1.1, 701.2, 701.3, 701.3.1, 701.3.2, 701.3.3, 701.3.4, SECTION 702, 702.1, 702.2, FIGURE 702.2, 702.2.1, 702.2.2, 702.2.3, 702.2.4, 702.2.5, 702.2.6, 702.2.7, 702.3, FIGURE 702.3, 702.3.1, 702.3.2, 702.3.3, 702.3.4, 702.3.5, 702.3.6, 702.4, FIGURE 702.4, 702.4.1, 702.4.2, 702.4.3, 702.4.4, 702.4.5, 702.4.6, 702.4.7, 702.5, FIGURE 702.5, 702.5.1, 702.5.2, 702.5.3, 702.5.4, 702.5.5, 702.5.6, 702.5.7, 702.6, 702.6.1, 702.6.2, 702.6.3, 702.6.4, 702.6.5, 702.6.6, 702.6.7, SECTION 705, 705.1., 705.2, 705.2.1, 705.2.1.1, 705.2.1.2, 705.2.1.3, 705.2.1.4, 705.2.1.4.1, 705.2.2, 705.2.3, 705.2.3.1, 705.2.3.2, CHAPTER 8, SECTION 801, 801.1, 801.2, SECTION 802, 802.1, 802.3 (New), TABLE 803.1, 805.1, 809.2, 809.2.1 (New), 809.10 (New)

Proponents: Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com); Gregory Andrew Ceton, Pool and Hot Tub Alliance (gceton@phta.org)

2024 International Swimming Pool and Spa Code

CHAPTER 7 ONGROUND STORABLE RESIDENTIAL SWIMMING POOLS

SECTION 701
GENERAL

Revise as follows:

701.1 Scope. ~~This chapter describes certain criteria for the d~~Design, manufacturing, and testing of *onground storable pools* intended for *residential* use, shall comply with this chapter. ~~This includes portable pools with flexible or nonrigid side walls that achieve their structural integrity by means of uniform shape, support frame or a combination thereof, and that can be disassembled for storage or relocation. This chapter includes what has been commonly referred to in past standards or codes as onground or above-ground pools.~~

Delete without substitution:

~~**701.1.1 Permanent inground residential swimming pool.** This chapter does not apply to permanent inground *residential* pools, as defined in Chapter 8.~~

~~**701.2 General.** In addition to the requirements of this chapter, onground storable *residential* swimming pools shall comply with the requirements of Chapter 3.~~

~~**701.3 Floor slopes.** Floor slopes shall be uniform and in accordance with Sections 701.3.1 through 701.3.4.~~

~~**701.3.1 Shallow end.** The slope of the floor from the shallow end wall towards the deep area shall not exceed 1 unit vertical in 7 units horizontal (14 percent slope) to the point of the first slope change.~~

~~**701.3.2 Transition.** The slope of the floor from the point of the first slope change towards the deepest point shall not exceed 1 unit vertical in 3 units horizontal (33 percent slope).~~

~~**701.3.3 Adjacent.** The slope adjacent to the shallow area shall not exceed 1 unit vertical in 3 units horizontal (33 percent slope) and the slope adjacent to the side walls shall not exceed 1 unit vertical in 1 unit horizontal (100 percent slope).~~

~~**701.3.4 Change point.** The point of the first slope change shall be defined as the point at which the shallow area slope exceeds 1 unit vertical in 7 units horizontal (14 percent slope) and is not less than 6 feet (1889 mm) from the shallow end wall of the pool.~~

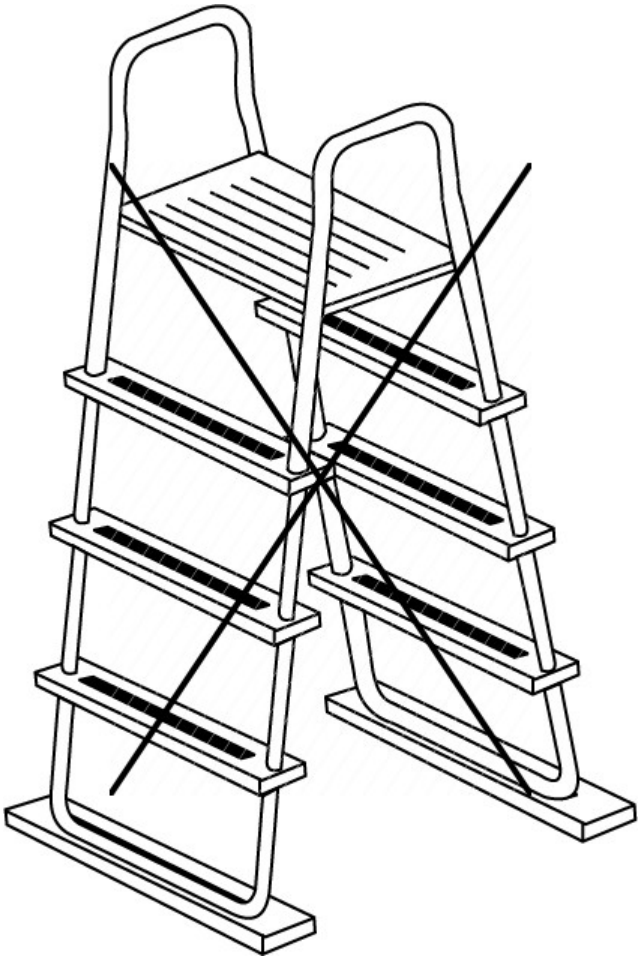
SECTION 702
LADDERS AND STAIRS

Revise as follows:

702.1 Ladders and stairs. Pools shall have a means of entry and exit consisting of not less than one ladder or a ladder and staircase combination. All ladders or staircase means of entry shall meet the ladder and staircase requirements of APSP-4.

Delete without substitution:

~~**702.2 Type A and Type B ladders.** Type A, double access, and Type B, limited access, A-frame ladders shall comply with Sections 702.2.1 through 702.2.7. See Figure 702.2.~~



~~**FIGURE 702.2 TYPICAL A-FRAME LADDER, TYPES A AND B**~~

~~**702.2.1 Barrier required.** Ladders in the pool shall have a physical barrier to prevent children from swimming through the riser openings or behind the ladder.~~

~~**Exception:** Barriers for ladders shall not be required where the ladder manufacturer provides a certification statement that the ladder complies with the ladder entrapment test requirements of APSP-4.~~

~~**702.2.2 Platform.** Where an A-frame ladder has a platform between the handrails, the platform shall have a width of not less than 12 inches (305 mm) and a length of not less than 12 inches (305 mm). The platform shall be at or above the highest ladder tread. The walking surface of the platform shall be slip resistant.~~

~~**702.2.3 Handrails or handholds.** A-frame ladders shall have two handrails or handholds that serve all treads. The height of the handrails and handholds shall be not less than 20 inches (508 mm) above the platform or uppermost tread, whichever is higher.~~

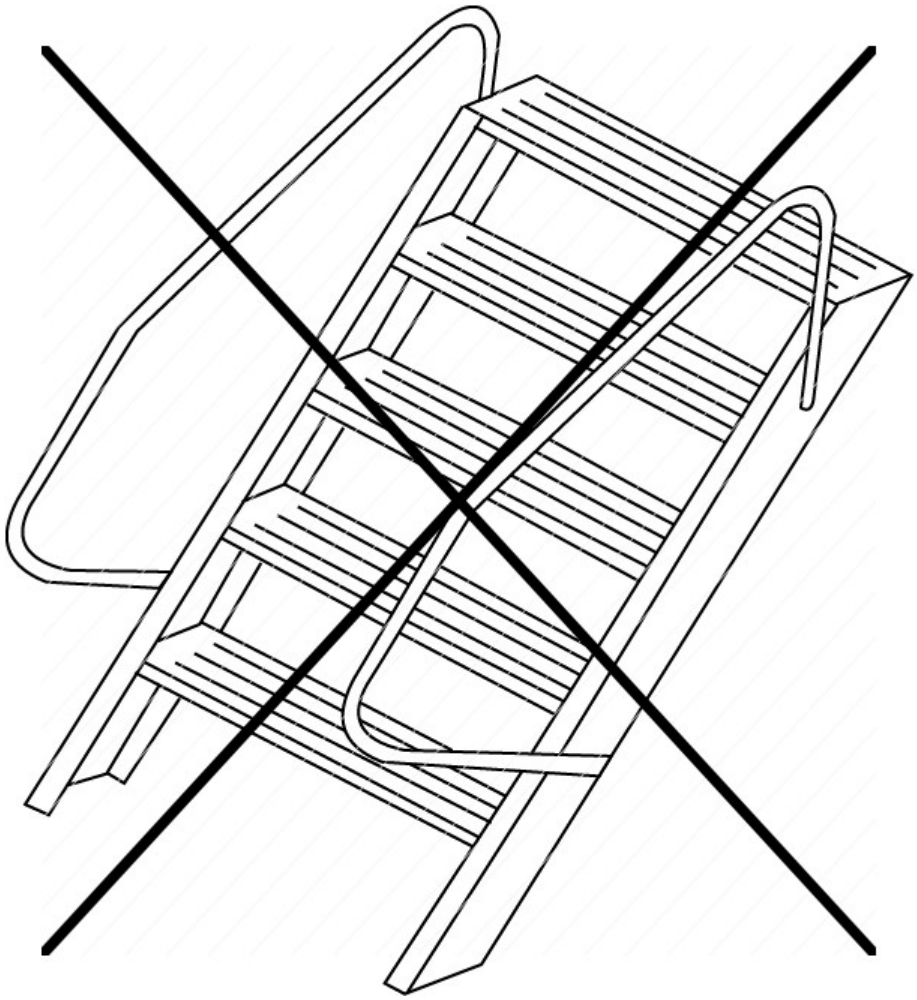
~~702.2.4 Diameter.~~ ~~The outside diameter of handrails and handholds shall be not less than 1 inch (25 mm) and not greater than 1.9 inches (48 mm).~~

~~702.2.5 Clear distance.~~ ~~The clear distance between ladder handrails shall be not less than a space of 12 inches (305 mm).~~

~~702.2.6 Treads.~~ ~~Ladder treads shall have a horizontal uniform depth of not less than 2 inches (51 mm).~~

~~702.2.7 Riser height.~~ ~~Risers, other than the bottom riser, shall be of uniform height that is not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The bottom riser height shall be not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The vertical distance from the platform or top of the pool structure to the uppermost tread shall be the same as the uniform riser heights.~~

~~702.3 Type C staircase ladders (ground to deck).~~ ~~Type C staircase ladders shall comply with Sections 702.3.1 through 702.3.6. See Figure 702.3.~~



~~FIGURE 702.3 TYPICAL STAIRCASE LADDER, TYPE C~~

~~702.3.1 Handrails or handholds.~~ ~~Staircase ladders shall have not less than two handrails or handholds that serve all treads. The height of the handrails and handholds shall be not less than 20 inches (508 mm) above the platform or uppermost tread, whichever is higher.~~

~~702.3.2 Diameter.~~ ~~The outside diameter of handrails and handholds shall be not less than 1 inch (25 mm) and not greater than 1.9 inches (48 mm).~~

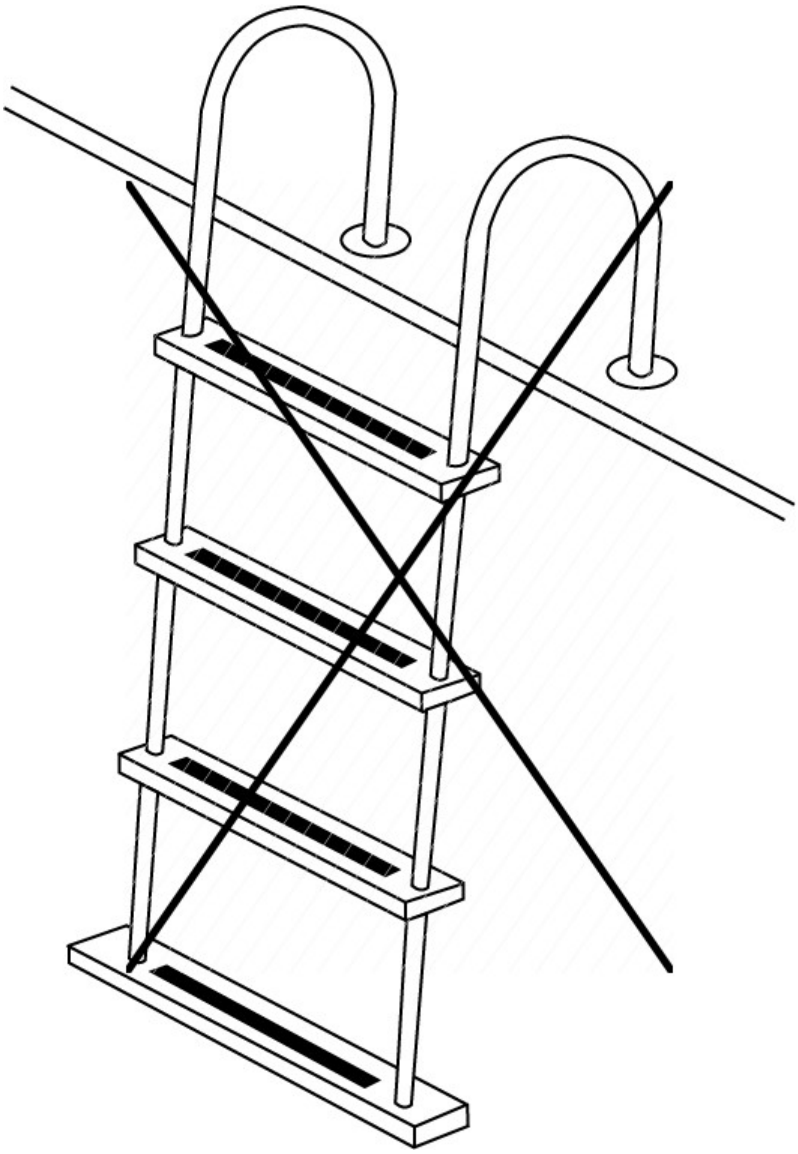
~~702.3.3 Treads.~~ ~~Ladder treads shall have a horizontal uniform depth of not less than 4 inches (102 mm).~~

~~702.3.4 Riser height.~~ ~~Risers, other than the bottom riser, shall be of uniform height that is not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The bottom riser height shall be not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The vertical distance from the platform or top of the pool structure to the uppermost tread shall be the same as the uniform riser heights.~~

~~702.3.5 Top step.~~ ~~The top step of a staircase ladder shall be flush with the deck or 7 inches (178 mm) to 12 inches (305 mm) below the deck level.~~

~~702.3.6 Width.~~ ~~Steps shall have a minimum unobstructed width of 19 inches (483 mm) between the side rails.~~

~~702.4 Type D in-pool ladders.~~ ~~Type D in-pool ladders shall be in accordance with Sections 702.4.1 through 702.4.7. See Figure 702.4.~~



~~FIGURE 702.4 TYPICAL IN-POOL LADDER, TYPE D~~

~~702.4.1 Clearance.~~ ~~There shall be a clearance of not less than 3 inches (76 mm) and not greater than 6 inches (152 mm) between the pool wall and the ladder.~~

~~702.4.2 Handrails or handholds.~~ ~~Ladders shall be equipped with two handrails or handholds that extend above the platform or deck not less than 20 inches (508 mm).~~

~~702.4.3 Clear distance.~~ ~~The clear distance between ladder handrails shall be not less than 12 inches (305 mm).~~

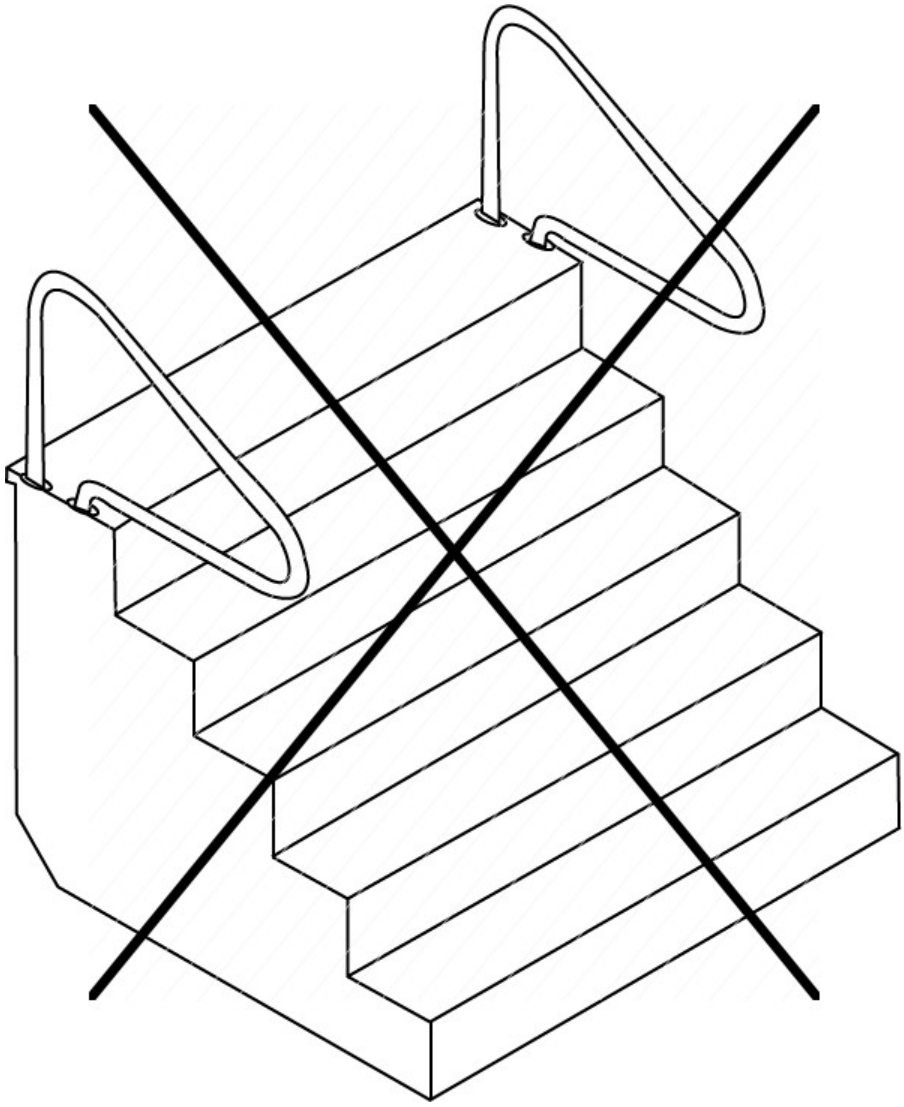
~~702.4.4 Diameter.~~ ~~The outside diameter of handrails and handholds shall be not less than 1 inch (25 mm) and not greater than 1.9 inches (48 mm).~~

~~702.4.5 Riser height.~~ ~~Risers, other than the bottom riser, shall be of uniform height that is not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The bottom riser height shall be not less than 7 inches (178 mm) and not greater than 12 inches (305 mm).~~

~~702.4.6 Top tread.~~ ~~The vertical distance from the pool coping, deck, or step surface to the uppermost tread shall be not less than 7 inches (178 mm) and not greater than 12 inches (305 mm) and uniform with other riser heights.~~

~~702.4.7 Tread depth.~~ ~~Ladder treads shall have a horizontal uniform depth of not less than 2 inches (51 mm).~~

~~702.5 Type E protruding in-pool stairs.~~ ~~Type E protruding in-pool stairs shall be in accordance with Sections 702.5.1 through 702.5.7. See Figure 702.5.~~



~~FIGURE 702.5 TYPICAL IN-POOL STAIRCASE TYPES, E AND F~~

~~702.5.1 Barrier required.~~ ~~In-pool stairs shall have a physical barrier to prevent children from swimming through the riser openings or behind the in-pool stairs.~~

~~**702.5.2 Handrails or handholds.** In-pool stairs shall be equipped with not less than one handrail or handhold that serves all treads with a height of not less than 20 inches (508 mm) above the platform or uppermost tread, whichever is higher.~~

~~**702.5.3 Removable handrails.** Where handrails are removable, they shall be installed such that they cannot be removed without the use of tools.~~

~~**702.5.4 Leading edge distance.** The leading edge of handrails shall be 18 inches (457 mm) ± 3 inches (± 76 mm), horizontally from the vertical plane of the bottom riser.~~

~~**702.5.5 Diameter.** The outside diameter of handrails and handholds shall be not less than 1 inch (25 mm) and not greater than 1.9 inches (48 mm).~~

~~**702.5.6 Tread width and depth.** Treads shall have an unobstructed horizontal depth of not less than 10 inches (254 mm) and an unobstructed surface area of not less than 240 square inches (0.15 m^2).~~

~~**702.5.7 Uniform riser height.** Risers, other than the bottom riser, shall be of uniform height that is not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The bottom riser height shall be not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The vertical distance from the pool coping, deck or step surface to the uppermost tread of the stairs shall be the same as the uniform riser heights.~~

~~**702.6 Type F recessed in-pool stairs.** Type F recessed in-pool stairs shall be in accordance with Sections 702.6.1 through 702.6.7. See Figure 702.5.~~

~~**702.6.1 Barrier required.** In-pool stairs shall have a physical barrier to prevent children from swimming through the riser openings or behind the in-pool stairs.~~

~~**702.6.2 Handrails or handholds.** In-pool stairs shall be equipped with not less than one handrail or handhold that serves all treads with a height of not less than 20 inches (508 mm) above the platform or uppermost tread, whichever is higher.~~

~~**702.6.3 Removable handrails.** Where handrails are removable, they shall be installed such that they cannot be removed without the use of tools.~~

~~**702.6.4 Leading edge distance.** The leading edge of handrails shall be 18 inches (457 mm) ± 3 inches (± 76 mm), horizontally from the vertical plane of the bottom riser.~~

~~**702.6.5 Diameter.** The outside diameter of handrails and handholds shall be not less than 1 inch (25 mm) and not greater than 1.9 inches (48 mm).~~

~~**702.6.6 Tread width and depth.** Treads shall have an unobstructed horizontal depth of not less than 10 inches (254 mm) at all points and an unobstructed surface area of not less than 240 square inches (0.15 m^2).~~

~~**702.6.7 Uniform riser height.** Risers, other than the bottom riser, shall be of uniform height that is not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The bottom riser height shall be not less than 7 inches (178 mm) and not greater than 12 inches (305 mm). The vertical distance from the pool coping, deck or step surface to the uppermost tread of the stairs shall be the same as the uniform riser heights.~~

SECTION 705
SAFETY SIGNS

705.1. Signs to be installed prior to final inspection. Safety signage such as “NO DIVING” signs and other safe use instruction signs that are provided by the pool and ladder manufacturer shall be posted in accordance with the manufacturer’s instructions prior to final

inspection.

Revise as follows:

705.2 Safety signs for ladders. Safety signage for ladders shall be in accordance with ~~Sections 705.2.1 through 705.2.3.2~~ the requirements in APSP-4.

Delete without substitution:

~~**705.2.1 A-frame ladders.** Safety signage for A-frame ladders shall be in accordance with Sections 705.2.1.1 through 705.2.1.4.1. The words on the signage shall be readable by persons standing in the pool and standing outside of the pool as applicable for the required location of each sign.~~

~~**705.2.1.1 No diving warning.** A-frame ladders shall have the following words posted on the in-pool side of the ladder and on the pool entry side of the ladder: "NO DIVING." The location of the words shall be above the elevation of the design water level of the pool.~~

~~**705.2.1.2 Entrapment warning.** A-frame ladders shall have the following words posted on the pool side of the ladder: "TO PREVENT ENTRAPMENT OR DROWNING DO NOT SWIM THROUGH, BEHIND, OR AROUND LADDER."~~

~~**705.2.1.3 Type A, A-frame ladders.** Type A double access A-frame ladders shall have the following words posted on the ladder: "REMOVE AND SECURE LADDER WHEN POOL IS NOT OCCUPIED."~~

~~**705.2.1.4 Type B, A-frame ladders.** Type B limited access A-frame ladders shall have the following words posted on the ladder: "SECURE LADDER WHEN POOL IS NOT OCCUPIED."~~

~~**705.2.1.4.1 Swing up or slide up secured ladders.** Type B limited access A-frame ladders that utilize swing-up or slide-up sections for limiting access to the pool shall have the following words posted on the ladder as applicable for the type of securing method:~~

1. ~~"WHEN POOL IS NOT OCCUPIED, SWING UP AND SECURE."~~
2. ~~"WHEN POOL IS NOT OCCUPIED, LIFT OFF."~~
3. ~~"WHEN POOL IS NOT OCCUPIED, SLIDE UP AND SECURE."~~

~~**705.2.2 Type C staircase ladders.** Type C staircase ladders that swing up to limit access to the pool or that are removed to limit access to the pool shall have the following words posted on the ladder: "WHEN NOT IN USE SWING UP AND SECURE OR REMOVE."~~

~~**705.2.3 Type D in-pool ladder.** Safety signage for Type D in-pool ladders shall be in accordance with Sections 705.2.3.1 and 705.2.3.2. The words on the signage shall be readable by persons standing in the pool or standing outside the pool as applicable for the required location of each sign.~~

~~**705.2.3.1 No diving warning.** Type D in-pool ladders shall have the following words posted on the in-pool side of the ladder and on the pool entry side of the ladder: "NO DIVING." The location of the words shall be above the elevation of the design water level of the pool.~~

~~**705.2.3.2 Entrapment warning.** Type D in-pool ladders shall have the following words posted on the ladder: "WARNING: TO PREVENT ENTRAPMENT OR DROWNING, DO NOT SWIM THROUGH, BEHIND, OR AROUND LADDER."~~

Revise as follows:

CHAPTER 8 PERMANENT ~~INGROUND~~ RESIDENTIAL SWIMMING POOLS

SECTION 801

GENERAL

Revise as follows:

801.1 Scope. ~~The provisions of this chapter shall govern permanent inground *residential* swimming pools.~~ Design, construction, installation, alteration, repair, and operation of p~~P~~ermanent ~~inground~~ *residential* swimming pools, which ~~shall~~ include pools that are inground, partially aboveground, or entirely aboveground ~~grade~~, shall comply with this chapter. ~~This chapter does not cover pools that are specifically manufactured for above-ground use and that are capable of being disassembled and stored. This chapter covers new construction, modification and repair of inground *residential* swimming pools.~~

Delete without substitution:

~~**801.2 General.** Permanent inground *residential* pools shall comply with the requirements of Chapter 3.~~

SECTION 802
DESIGN

Revise as follows:

802.1 Materials of components and accessories. The materials of components and accessories used for permanent ~~inground~~ *residential* swimming pools shall be suitable for the environment in which they are installed. The materials shall be capable of fulfilling the design, installation and the intended use requirements in the *International Residential Code*.

Add new text as follows:

802.3 Identification. Permanent *residential* swimming pools with a vinyl liner shall have the manufacturer's name and the liner identification number affixed to the liner.

Revise as follows:

TABLE 803.1 DESIGN WATERLINE CONSTRUCTION TOLERANCE

SURFACE	TOLERANCE
Waterline on tiled surface	± 1/4 inch
Waterline on surfaces other than a tiled surface	± 1/2 inch
Waterline on aboveground manufactured pool kit	±1 inch

805.1 General. Walls in the shallow area and deep area of the pool shall have a wall-to-floor transition point that is not less than 33 inches (838 mm) below the *design waterline*. Above the transition point, the walls shall be within 11 degrees (0.19 rad) of vertical.

Exception: The slope adjacent to the side walls shall not exceed 1 unit vertical in 1 unit horizontal (100 percent slope) where specified by the manufacturer for permanent aboveground pools.

809.2 Entry and exit. Pools shall have a means of entry and exit in all shallow areas where the design water depth of the shallow area at the shallowest point exceeds 24 inches (610 mm). Entries and exits shall consist of one or a combination of the following: steps, stairs, ladders, treads, ramps, beach entries, underwater seats, benches, swimouts and other *approved* designs. The means of entry and exit shall be located on the shallow side of the first slope change.

Add new text as follows:

809.2.1 Ladders and Stairs. Partially and entirely aboveground permanent non-diving pools shall meet the ladder and staircase

requirements, and associated safety signage, in accordance with APSP-4.

809.10 Decks. Partially and entirely aboveground permanent non-diving pools shall meet the decking requirements in Section 703.

Staff Analysis: The proposed standards are in the current edition of the code.

Reason: The intent of this proposal is to reorganize aspects of Chapters 7 and 8 in order to provide needed clarity. Chapter 7 is titled "Onground storable residential swimming pools" and requirements within should only be relative to these specific types of pools, and only include items not addressed or that must differ from Chapter 3 General requirements. Whereas all types of permanent pools, including partially or entirely aboveground pools should be covered in Chapter 8 where permanent residential pools reside. This proposal also provides changes to eliminate duplicative provisions.

Specifically, this proposal provides the following:

- Updates scoping for both Chapters to align with what is covered within each Chapter and to align with the larger scoping proposal being addressed across all I-codes for consistency in formatting.
- Removes floor slope requirements in Chapter 7 that do not apply to onground storable pools (and is already provided within Chapter 8 where such requirements are applicable).
- Deletes the majority of Sections 702 and 705, and requires that stairs and ladders meet the requirements laid out in APSP-4, including relevant safety signage for the specific type of ladder or stairs used.
- Adds a new subsection to Chapter 8 to ensure vinyl liners used in permanent pools have the appropriate identification affixed to the liner.
- Adds a waterline tolerance for permanent aboveground manufactured pool kits to Table 803.1.
- Adds an exception under Section 805 needed for certain permanent aboveground pools.
- Adds a requirement in Section 809 for permanent aboveground non-diving pools installing ladders or stairs to follow the requirements as specified in APSP-4, including relevant safety signage.
- Adds a requirement in Section 809 for permanent aboveground non-diving pools to also follow the decking requirements in Section 703, as these types of pools may also use the types of decking laid out in Chapter 7. These requirements are not in Chapter 3 decking becuase they do not apply to all types of pools and spas.

With regard to now referring to the ANSI/APSP/ICC-4 Standard for Aboveground/Onground Residential Swimming Pools, the reasoning behind this change was these non-diving permanent aboveground or storable onground residential pools provide for pre-fabricated ladder or stair components. Other components within the ISPSC that have a standard they must follow simply reference said standard. For example, suction outlet fitting assemblies are required to comply with ANSI/APSP/ICC-16, pool and hot tub covers are required to comply with ASTM F1346, etc. Further, in one subsection of Section 702 we already refer the user to APSP-4; therefore, it makes more sense to have them go to APSP-4 for all its ladder and stair requirements. This then allows for Sections 702 and 705 to be reduced to simply requiring compliance with APSP-4. Then in Chapter 8, for permanent aboveground nondiving pools who utilize these same ladders and steps, a similar subsection is added directing the user to APSP-4 for compliance. Finally, by removing the language, this change ensures that if any changes are made to the APSP-4 requirements, the ISPSC will not be inconsistent.

This proposal is not intended to add any new requirements, but simply clarify existing requirements by properly organizing them in the appropriate chapters and sections of ISPSC and deleting duplicative language or language that comes from a standard that instead can be referenced for compliance.

Bibliography: ANSI/APSP/ICC-4 2012 (R2022) American National Standard for Aboveground/Onground Residential Swimming Pools

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposal does not change any current requirements; rather, it simply reorganizes sections to make the code clearer as to what requirements are for certain types of pools. The requirement to follow APSP-4 does not affect the cost as this standard was already required within the ISPSC.

SP32-24

ISPSC: 811.1

Proponents: Gregory Ceton, Pool and Hot Tub Alliance (gceton@phta.org); Jennifer Hatfield, J. Hatfield & Associates, Pool & Hot Tub Alliance (jen@jhatfieldandassociates.com)

2024 International Swimming Pool and Spa Code

Revise as follows:

811.1 ~~Rope and float~~ Slope change identification. ~~In pools where the point of first slope break occurs, a rope and float assembly shall be installed across the width of the pool. The rope assembly shall be located not less than 1 foot (305 mm) and not greater than 2 feet (610 mm) towards the shallow side of the slope break. Rope anchoring devices shall be permanently attached to the pool wall, coping or deck. Rope ends shall attach to the rope anchor devices so that the rope ends can be disconnected from the rope anchor device.~~ The point at which the shallow area changes slope to the deep area in the pool shall be identified in an approved manner.

Reason: Most pool builders do not install safety ropes and floats on residential pools with a continuous 1:7 slope or more. The transition increase of a deep end slope less than the accepted shallow end slope does necessitate an approved manner for marking the transition but that is not necessarily rope and float, which is uncommon in residential pools. Deep ends are also becoming uncommon in new residential pools.

An approved and commonly used method for depth transition may be floor or other marking used.

The slope change transition is noted in section 807 of the ISPSC.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

$1-500

Estimated Immediate Cost Impact Justification (methodology and variables):

The cost of not installing rope and float anchors in pools with deep ends would be minimal -- the cost of not buying rope and float equipment or paying for installation of anchors. The cost of other forms of marking would be included in the cost of coating or tiles already part of the total cost of a pool.

Estimated Life Cycle Cost Impact:

None

Estimated Life Cycle Cost Impact Justification (methodology and variables):

None

SP33-24

ISPSC: 901.2

Proponents: Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

901.2 General. Permanent *residential* spas and permanent *residential* exercise spas shall comply with Chapter 5 except that Sections 504 ~~504.1, 504.1.1~~ and 508 ~~508.1~~ shall not apply. Such spas shall comply with the requirements of Chapter 3.

Reason: During the 2018 Group A code development hearings, John Kelly, representing himself submitted SP39-18. This proposal added in a much-needed timer for Commercial Spas and Exercise Spas. However, this created an unintended consequence, now making the timers required on residential and commercial. This proposal will now exempt all residential spas and exercise spas from section 504 and 508 in its entirety. By exempting out all of section 504 and not just the subsections, it cleans up the code section providing clarity. Furthermore, with there no longer being section 509 in the ISPSC removing that exemption is also needed for clarity. Section 509 on safety features was moved to section 508 in the 2021 ISPSC. This was due to approval of SP19-18. In The 2024 ISPSC section 319.2 was relocated to 320.2. This renumbering was the result of the approval of SP24-21. The updated 2024 ISPSC section 320.2 makes it clear that these only apply to Public Pools and Spa, therefore no exception is needed in chapter 9 for section 320.2. By including all of section 508 we will return the code to the original intent for exempting out the safety requirements for public spas and exercise spas.

This proposal is submitted by the ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC)

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 PMGCAC has held 26 virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

About $200 per spa.

Estimated Immediate Cost Impact Justification (methodology and variables):

About 2 hours labor at $80 per hours plus $40 for wiring, timer and mounting hardware.

Estimated Life Cycle Cost Impact:

N/A

Estimated Life Cycle Cost Impact Justification (methodology and variables):

N/A