



# Keeping California's Swimming Pools Safe With the 2021 International Swimming Pool and Spa Code



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PLUMBING, MECHANICAL, FUEL GAS, AND SWIMMING POOL & SPA

# Introductions:



# Scott Cohen



- **Mr. Cohen is an acclaimed landscape designer, author, and licensed contractor in landscape, pool and general construction whose award-winning work has been frequently showcased on HGTV and in numerous books and national magazines**
- **Known for his spectacular gardens that combine the best of outdoor living with inspired artistic touches**
- **Author of 10 design and construction books**
- **A 3-time Masters of Design Award winner**
- **Featured on several Home and Garden Television shows such as “Cool Pools” and “Get Out, Way Out!”**
- **Provides construction defect expert witness services and continues to lobby for ethical Workers’ Compensation practices in the construction industry**
- **President, The Green Scene Inc.**
- **Current Chair, California Pool & Spa Association**



# Ken Gregory



- **Mr. Gregory was a Commercial Pool Contactor with over 47 years of experience in the design, sales, construction management and maintenance of residential and commercial pools. He has designed and built pools ranging from a few hundred square feet to several thousand. This includes filtration, chemical controls, UV light systems, variable frequency drives, flow controls and heating systems of all types. He has designed and built pools for almost every national hotel chains including Disney Resorts.**
- **Presently works for Pentair Water Quality as the Compliance and Safety Manger. He has served and is serving on many various boards and committees for the NSF, ICC,IAPMO and PHTA.**
- **Current Chairman of the PHTA/ICC 15 Energy and Entrapment Standards**
- **Represents PHTA and Industry as a Member of the NSF 50 Joint Committee**
- **Represents PHTA to the ICC PMG Membership Council**
- **Serves on the Board of Directors for the National Drowning Prevention Alliance**



# Nick Capezza



- **Mr. Capezza is the Program Director, Codes & External Standards for the Pool & Hot Tub Alliance (PHTA)**
- **15+ years of experience in advocacy, codes and standards development, and public policy**
- **Serves as the association's representative to code and standard developing organizations including ICC, NFPA, ACI, UL, ASHRAE, and ASTM**
- **Works on the harmonization between the ISPSC (and all I-Codes) and the ANSI-approved PHTA Standards**
- **Assists local jurisdictions in the adoption of the ISPSC**
- **Industry contact for California Proposition 65 issues**
- **Observer member of the ASTM F15 Committee on Consumer Products and voting member of pool and spa-related subcommittees**
- **Principal member representing PHTA and Industry on the ICC Consensus Committee on Accessible and Usable Buildings and Facilities, which develops the A117.1 Standard on Accessibility**



# Lisa Reiheld



- Director, PMG Technical Resources for International Code Council
- Serve as a subject matter expert to the IPC, IMC, IFGC, ISPSC, and IPSPDC codes
- Represents ICC in federal and state coalitions, task forces, committees, and councils where expertise in I-Code subjects is required
- 20 years of experience in plumbing product certifications, design engineering, and building codes
- Previously Codes & Standards Manager for Viega LLC where she advised product design staff on code and standard requirements that impacted the development of new plumbing products
- Worked for CSA Group as a Certification Engineer in the Plumbing Group providing education to code officials around the country on the process and meaning of certification marks



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# Rich Anderson

## Director, PMG Technical Resources



Director, PMG Technical Resources for the International Code Council (ICC), where I serve as a subject matter expert to the plumbing, mechanical, fuel gas codes, and swimming pool & spa, and the private sewage disposal Codes.

Having more than 23 years of experience working within the plumbing, mechanical and construction industry. Licensed with the Texas State Board of Plumbing Examiners as a Journeymen, Master and Inspector with Medical Gas & Piping endorsement, as well as an “A” Refrigeration License with a Combination endorsement with the Texas Department of Licensing and Regulation. In addition, I hold several ICC plan review and inspection certifications in various disciplines, the highest of which is that of a Certified Building Official (CBO).



# Currently in California...

- No Statewide Swimming Pool Code
- Limited State Laws on Swimming Pools and Spas
- Can Only Provide Recommendations from PHTA Standards and Other Resources
- Cannot Point to Specific Rules
- Different Requirements from Locality to Locality



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## Currently in California...

- Localities (even neighbors) differ in pool and spa policies, leading to:
  - Confusion among homeowners from jurisdiction to jurisdiction
  - Lack of continuity and harmonization for pool builders and contractors working in multiple locations
  - Potentially no or limited resources for health departments, building officials, and industry policymakers
  - Missing guidance on design, safety, water conservation, and other important subjects



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# Under ISPSC Adoption...

- Localities will have uniform pool and spa policies, meaning that:
  - Homeowners moving from one jurisdiction to another will already be familiar with pool and spa requirements
  - Pool builders and contractors working in multiple locations will only need to be familiar with one set of uniform rules
  - Health departments, building officials, and industry policymakers will have access to the educational resources available from the International Code Council, PHTA, and CPSA including classes, fact sheets, and the ability to participate in codes and standards processes
  - Design, safety, water conservation, and other subjects covered under the ISPSC will be available for stakeholders to review and use as requirements, not suggestions



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# Under ISPSC Adoption...

- ISPSC adoption means professionalism:
  - California localities can join the hundreds of jurisdictions across the United States that have adopted the ISPSC
  - Continuity from one location to location
  - All stakeholders working from the same playbook
  - The ability to tackle issues together including water conservation



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# Reasons to Adopt the 2021 International Swimming Pool and Spa Code® in California



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- **ISPSC Chapter 2** includes 90+ definitions related to new and existing swimming pools and spas not covered by CRC Appendix V.
- **ISPSC Chapter 7** regulates onground storable residential pools. Its purpose is to regulate the unique features of onground pools including but not limited to, safety, floor slopes, ladders, stairs, decks, circulation systems and signs.
- **ISPSC Chapter 8** regulates the design and construction of permanent inground residential pools. Features such as steps, diving water envelopes, diving equipment, slides, floor slopes, underwater benches and circulation systems are addressed with detailed requirements and restrictions.



- **ISPSC Chapter 9** regulates the design and construction of permanently installed residential spas to provide for a safe spa experience for the user.
- **ISPSC Chapter 10** regulates portable residential spas and exercise spas (factory built portable hot tubs) requiring them to be listed and labeled to standards applicable to those products.
- **ISPSC Chapter 11** lists referenced standards. The ISPSC includes numerous references to documents that are used to regulate materials and methods of construction



In addition, Appendix AX of the California Residential Code does not address the following Safety Requirements



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- **1. Piping, fittings and components (ISPSC Section 302.3).** Piping and fitting requirements NSF 14 provides for a certain level of quality for those items so that they will not structurally fail under the intended service conditions, not impart harmful chemicals to the water in the pool or spa and will properly fit with other listed and labeled components. Where pipe, fittings, components, plastic jets and outlets are part of portable residential spas and portable residential exercise spas listed and labeled to UL 1563 or CSA C22.2 No. 218.1, the quality of the items are controlled, as necessary, by those standards.
- **2. Decks (ISPSC Section 306).** The provisions of this section are to prevent slip, trip and fall accidents. Decks around residential pools and spas must be sloped to drain excess water. Puddles of water deeper than  $\frac{1}{8}$  inch (3.2 mm) are a slip hazard. The maximum slope of a deck other than a wood deck cannot be more than  $\frac{1}{2}$  inch per foot (1 mm per 24 mm) because an excessively sloped wet surface is also a slip hazard. The slope of wood and wood/plastic decks must be held to not greater than  $\frac{1}{4}$  inch per foot (1 mm per 48 mm), as these surfaces are considerably “slicker” than decks of other material.
- **3. Waterline (ISPSC Section 308.4).** The design waterline (defined in ISPSC Chapter 2) must be held to close tolerances so that skimmers and gutters function as designed and water depths around the perimeter are consistent.





- **4. Treatment and circulation system equipment** (ISPSC Section 309.2). The requirement for treatment and circulation equipment to be listed and labeled to NSF 50 provides for a level of quality suitable for the intended use.
- **5. General and Structural Design** (ISPSC Section 307 & 802). These sections reference safety requirements for Munsell color values and the International Residential Code (IRC) for glazing in hazardous locations and for roofs and canopies over pools and spas.
- **6. Diving Board and Diving Water Envelopes** (ISPSC Section 804). To avoid a traumatic diving injury from a designated diving board location, a minimum diving water envelope is required in accordance with ISPSC Table 804.1. Requirements for manufactured and fabricated diving equipment and its placement for residential pools are found in ISPSC Section 808.
- **7. Offset Safety Ledge** (ISPSC Section 806). When offset ledges are provided in a pool for standing or walking along the walls of a pool, especially in the deep end for tiring swimmers, maximum widths are prescribed in ISPSC Section 806.

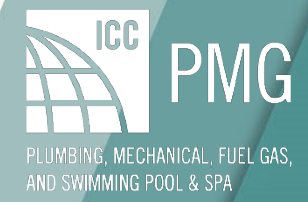


- **8. Pool Floors and Slopes** (ISPSC Section 807). Shallow end entry towards the deep end is required to be transitioned with a gradual slope to alert swimmers of entering deeper water.
- **9. Special Features** (ISPSC Section 809). ISPSC Section 809 covers safe installation of pool slides, a means of exit from the deep end of a pool when the deep area of the pool exceeds 5 feet, and pool stair tread and riser dimensions.
- **10. Turnover Rate** (ISPSC Section 810). The circulation system equipment is required to be sized to provide a turnover of the pool water not less than once every 12 hours plus the system needs to be designed to provide the required turnover rate based on the manufacturer's flow rate of the filter, with a clean media condition of the filter. Turnover at least once every 12 hours is essential to maintaining water clarity and healthy water.
- **11. Safety Features** (ISPSC Section 811). A rope and float assembly are required on the shallow side slope of a slope break to indicate approaching a significant change in slope which might create a slip hazard into deeper water





# Appendix AX of the California Residential Code

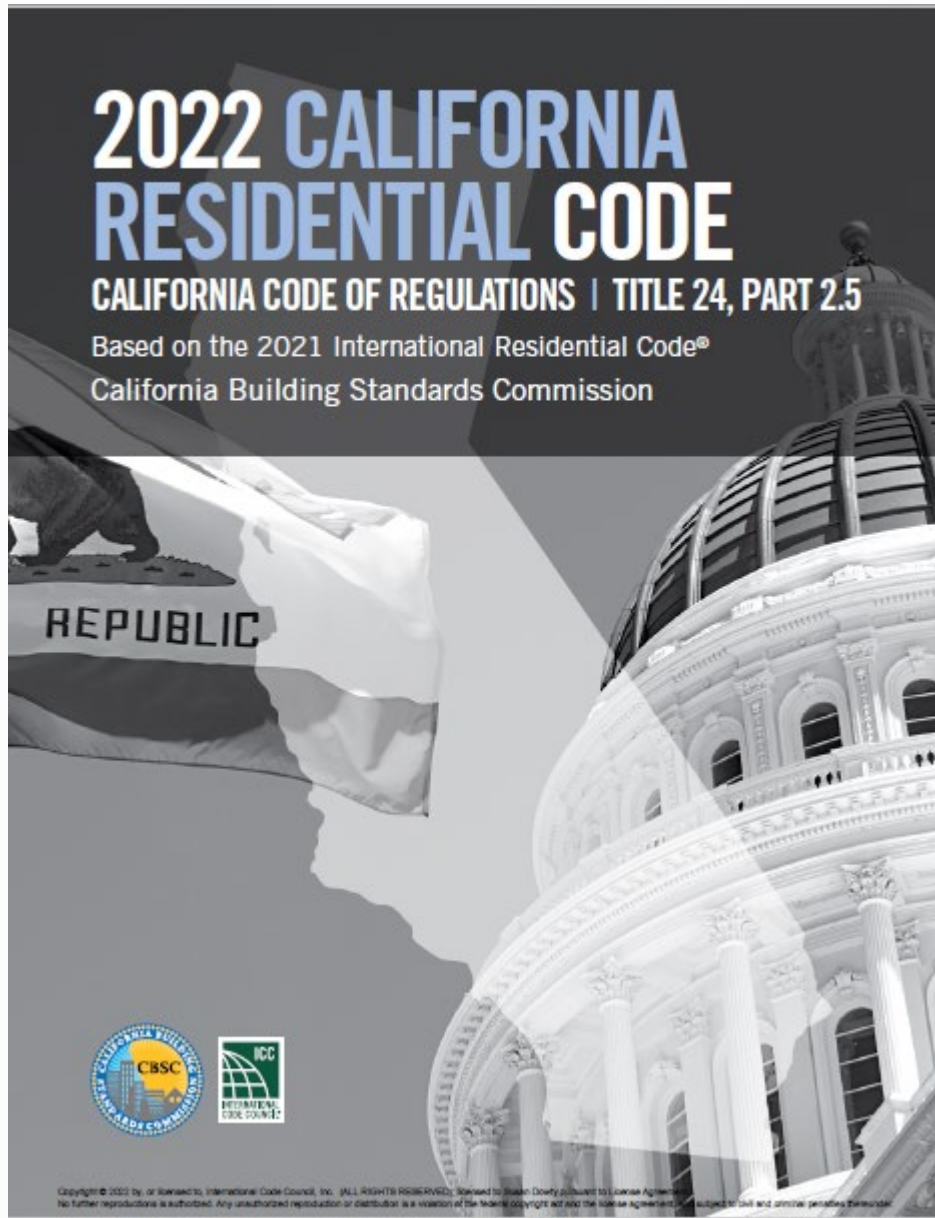




# 2022 CALIFORNIA RESIDENTIAL CODE

CALIFORNIA CODE OF REGULATIONS | TITLE 24, PART 2.5

Based on the 2021 International Residential Code®  
California Building Standards Commission



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***AX100 California swimming pool safety act (statewide).***

*The following text in this section contains the statutory language in the Swimming Pool Safety Act (HS Code, Sections 115920 through 115929) that is required to be duplicated and published in California Code of Regulations, Title 24. As such, the section numbers reflect those within the Health and Safety Code.*

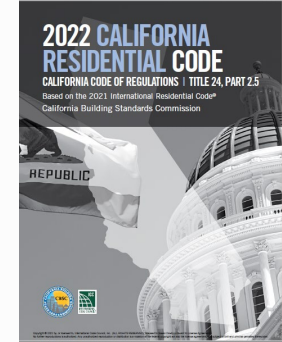
*NOTE: These regulations are subject to local government modification. You should verify the applicable local government requirements at the time of application for a building permit.*

***Authority:*** Health and Safety Code Section 18942(b)

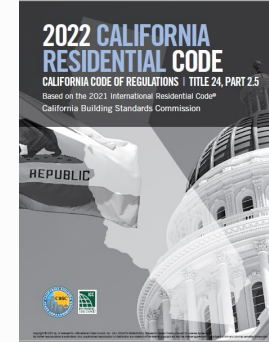
***Reference:*** Health and Safety Code Section 18942(b); Chapter 925, Statutes of 1996

***115920.*** This act shall be known and may be cited as the Swimming Pool Safety Act.

*(Added by Stats. 1996, Ch. 925, Sec. 3.5. Effective January 1, 1997.)*



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*115921. As used in this article the following terms have the following meanings:*

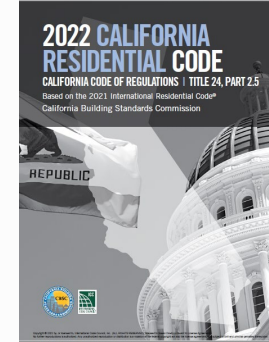
- (a) “Swimming pool” or “pool”*
- (b) “Public swimming pool”*
- (c) “Enclosure” means a fence, wall or other barrier that isolates a swimming pool from access to the home.*
- (d) “Approved safety pool cover”*
- (e) “Exit alarms”*
- (f) “ANSI/APSP performance standard”*
- (g) “Suction outlet”*



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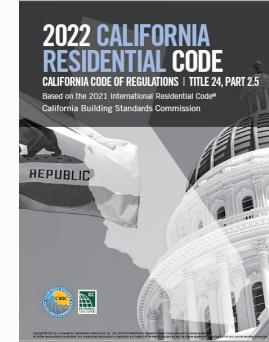
## 115922.

*(a) Except as provided in Section 115925, when a building permit is issued for the construction of a new swimming pool or spa or the remodeling of an existing swimming pool or spa at a private single-family home, the respective swimming pool or spa shall be equipped with at least two of the following seven drowning prevention safety features:*



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## **115922.**

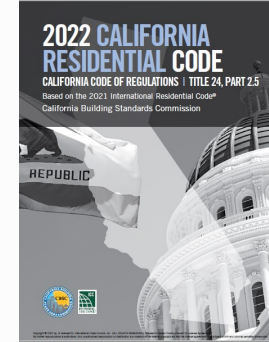
*(b) Before the issuance of a final approval for the completion of permitted construction or remodeling work, the local building code official shall inspect the drowning safety prevention features required by this section and, if no violations are found, shall give final approval. [Amended by Stats. 2017, Ch. 670, Sec. 4. (SB 442) Effective January 1, 2018.]*



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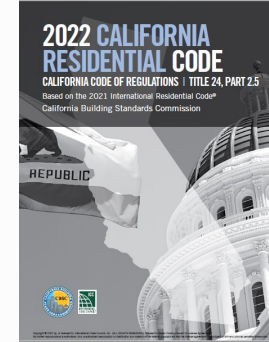
## 115924.

*(a) Any person entering into an agreement to build a swimming pool or spa, or to engage in permitted work on a pool or spa covered by this article, shall give the consumer notice of the requirements of this article.*



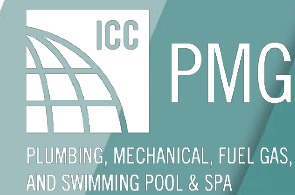
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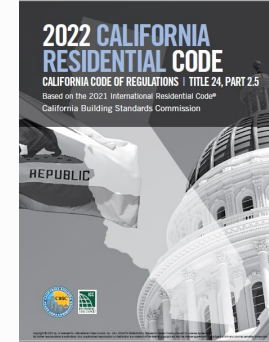
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**115924.**

*(b) Pursuant to existing law, the Department of Health Services shall have available on the department's Web site, commencing January 1, 2007, approved pool safety information available for consumers to download. Pool contractors are encouraged to share this information with consumers regarding the potential dangers a pool or spa poses to toddlers. Additionally, pool contractors may provide the consumer with swimming pool safety materials produced from organizations such as the United States Consumer Product Safety Commission, Drowning Prevention Foundation, California Coalition for Children's Safety & Health, Safe Kids Worldwide, Association of Pool and Spa Professionals, or the American Academy of Pediatrics.*





*115925. The requirements of this article do not apply to any of the following:*

*(a) Public swimming pools.*

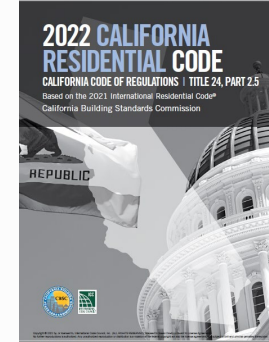
*(b) Hot tubs or spas with locking safety covers that comply with the American Society for Testing and Materials (ASTM F1346).*

*(c) An apartment complex or any residential setting other than a single-family home.*



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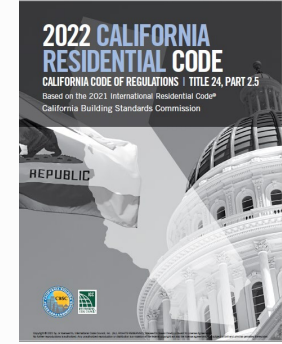


*115926. This article does not apply to any facility regulated by the State Department of Social Services even if the facility is also used as the private residence of the operator. Pool safety in those facilities shall be regulated pursuant to regulations adopted therefor by the State Department of Social Services.*



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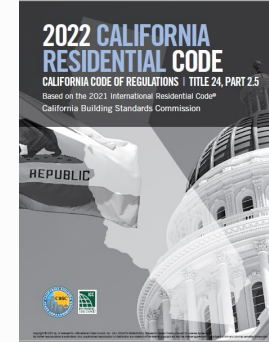


*115927. Notwithstanding any other provision of law, this article shall not be subject to further modification or interpretation by any regulatory agency of the state, this authority being reserved exclusively to local jurisdictions, as provided for in paragraph (7) of subdivision (a) of Section 115922 and subdivision (c) of Section 115925.*



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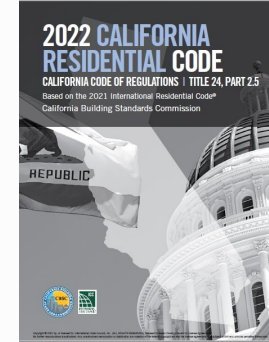


*115928. Whenever a building permit is issued for the construction of a new swimming pool or spa, the pool or spa shall meet all of the following requirements:*

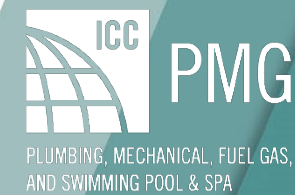


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*115928.5. Whenever a building permit is issued for the remodel or modification of an existing swimming pool, toddler pool or spa, the permit shall require that the suction outlet or suction outlets of the existing swimming pool, toddler pool or spa be upgraded so as to be equipped with antientrapment grates, as specified in the ANSI/APSP-16 performance standard or a successor standard designated by the federal Consumer Product Safety Commission.*



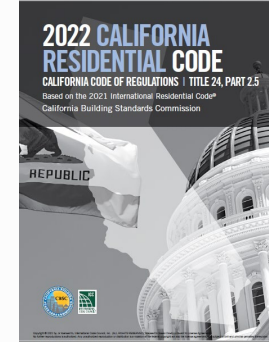
# 115929.

*(a) The Legislature encourages a private entity, in consultation with the Epidemiology and Prevention for Injury Control Branch of the department....*

*(b) The Legislature encourages the private entity to use existing documents...*

*(c) If a private entity produces the document described in subdivisions (a) and (b)...*

*(d) Upon approval of the document by the department, the document shall become the property of the state...*



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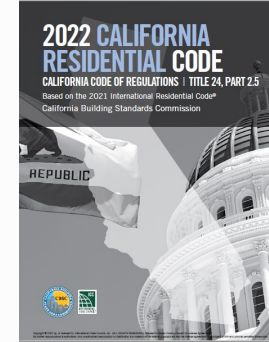
# Draft Ordinance Adoption Document



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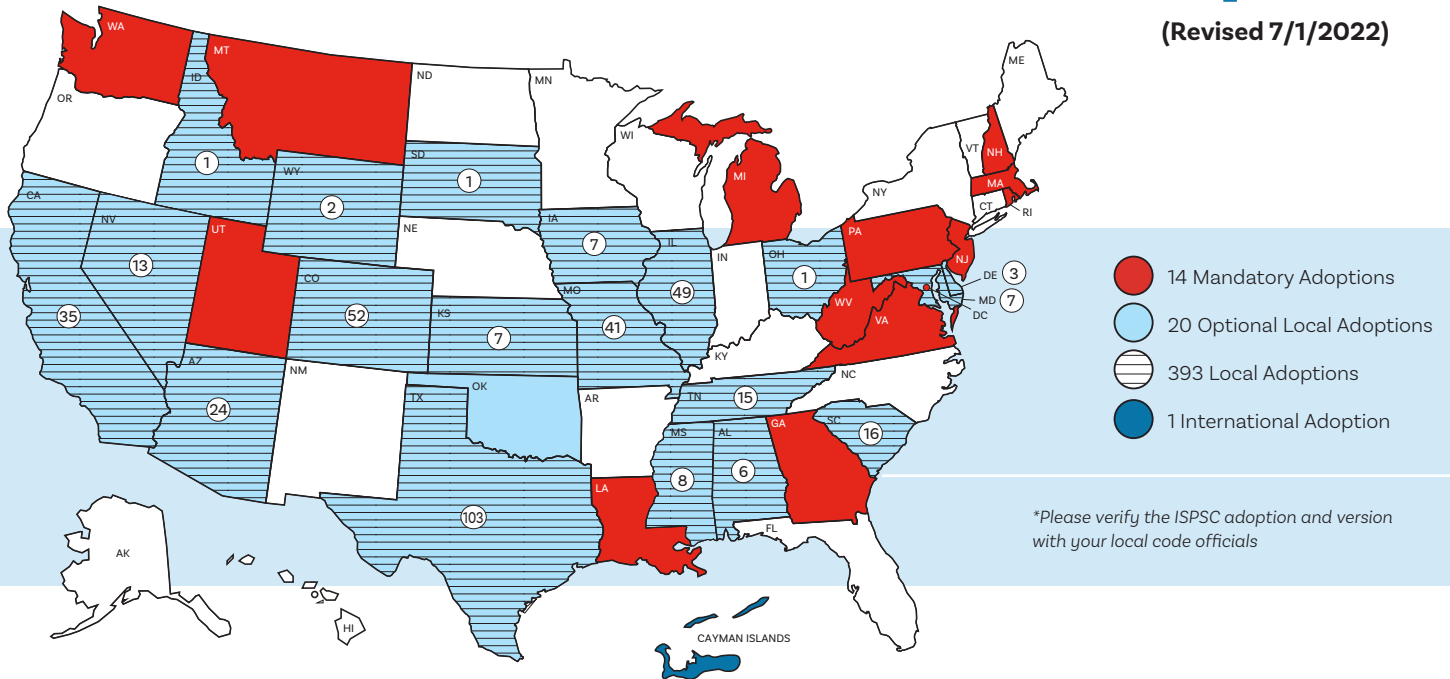
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# Thank you for participating



# ISPSC Adoption Status Report\*

(Revised 7/1/2022)



## 14 Mandatory State Adoptions (Statewide)

Georgia ('15) | Louisiana ('15) | Massachusetts ('15) | Michigan ('15) | Montana ('21) | New Hampshire ('15) | New Jersey ('18) | Pennsylvania ('18) | Rhode Island ('18) | Utah ('18) | Virginia ('18) | Washington ('15) | Washington, D.C. ('12) | West Virginia ('15)

## 20 States with Optional Adoption

Alabama | Arizona | California | Colorado | Delaware | Idaho | Illinois | Iowa | Kansas | Maryland | Mississippi | Missouri | Nevada | Ohio | Oklahoma | South Carolina | South Dakota | Tennessee | Texas | Wyoming

## 393 Local Adoptions

### Alabama

County of Mobile ('18)  
Gulf Shores ('18)  
Montgomery ('18)  
Orange Beach ('18)  
Tuscaloosa ('12)  
Vestavia Hills ('21)

### Arizona

Apache County ('15)  
Apache Junction ('18)  
Benson ('15)  
Camp Verde ('12)  
Casa Grande ('18)  
Chandler ('18)  
Clarkdale ('18)  
Florence ('18)  
Fountain Hills ('12)  
Goodyear ('12)  
Marana ('18)  
Mesa ('18)  
Oro Valley ('18)  
Pima County ('18)  
Phoenix ('18)  
Sahuarita ('12)  
San Luis ('18)  
Sedona ('18)  
Sierra Vista ('12)

Snowflake ('15)  
Somerton ('18)  
Tempe ('15)  
Tucson ('18)  
Yavapai County ('12)

### California

Alhambra ('18)  
Asuza ('18)  
Atascadero ('18)  
Brea ('15)  
Cathedral City ('18)  
Cotati ('15)  
El Segundo ('18)  
Fremont ('18)  
Garden Grove ('18)  
Grass Valley ('15)  
Hanford City ('15)  
Huntington Park ('12)  
Laguna Niguel ('18)  
La Palma ('18)  
Los Alamitos ('12)  
Milpitas ('18)  
Mission Viejo ('18)  
Monterey Park ('15)  
Nevada City ('15)  
Nevada County ('12)  
Newport Beach ('18)

Palo Alto ('15)  
Pleasanton ('18)  
Rancho Cordova ('18)  
Rancho Cucamonga ('18)  
Rancho Santa Margarita ('18)  
Sacramento County ('15)  
San Bernardino County ('18)  
San Luis Obispo County ('18)  
San Manuel Indian Reservation (in San Bernardino County) ('12)  
Seal Beach ('18)  
Sebastopol ('15)  
Temple City ('18)  
Ventura County ('18)  
Whittier ('15)

### Colorado

Adams County ('18)  
Arapahoe County ('15)  
Archuleta County ('18)  
Arvada ('18)

Aspen ('15)  
Berthoud ('18)  
Black Hawk ('15)  
Blue River ('12)  
Boulder ('12)  
Boulder County ('15)  
Broomfield ('18)  
Buena Vista ('15)  
Castle Pines ('15)  
Castle Rock ('12)  
Centennial ('15)  
Chaffee County ('15)  
Commerce ('18)  
Dacono ('18)  
Delta County ('18)  
Denver ('18)  
Denver County ('15)  
Douglas County ('18)  
Eagle County ('15)  
Erie ('15)  
Evans ('18)  
Federal Heights ('15)  
Fort Collins ('18)  
Fort Lupton ('18)  
Frisco ('18)  
Garfield County ('15)  
Greenwood Village ('12)  
Hudson ('18)

Johnstown ('18)  
Longmont ('18)  
Lyon County ('15)  
Pagosa Springs ('15)  
Parker ('15)  
Pitkin County ('15)  
Pueblo ('15)  
Salida ('15)  
Severance ('18)  
Sheridan ('15)  
Silverthorne ('18)  
Summit County ('18)  
Thornton ('15)  
Timnath ('18)  
Town of Buena Vista ('15)  
Wellington ('18)  
Westminster ('15)  
Wheat Ridge ('18)  
Windsor ('18)  
Yuma ('15)

### Delaware

Middletown ('18)  
New Castle County ('15)  
Rehoboth Beach ('18)

### Idaho

Lewiston ('15)

(\*): indicates update to ISPSC year

**Illinois**

Addison ('12)  
 Arlington Heights ('18)  
 Bartlett ('12)  
 Bloomingdale ('18)  
 Buffalo Grove ('18)  
 Champaign ('15)  
 Darien City ('15)  
 DeKalb ('15)  
 DuPage County ('15)  
 Elk Grove Village ('18)  
 Elmhurst ('12)  
 Elwood ('18)  
 Evanston ('12)  
 Geneva ('15)  
 Hainesville ('12)  
 Hanover Park ('12)  
 Highland Park ('18)  
 Hoffman Estates ('15)  
 Inverness ('15)  
 Itasca ('18)  
 Kankakee ('18)  
 Lake Bluff ('12)  
 Lake County ('12)  
 Libertyville ('18)  
 Lincoln ('12)  
 Lincolnshire ('18)  
 Lisle ('15)  
 Long Grove ('12)  
 Loves Park ('15)  
 Milan ('12)  
 Mount Prospect ('15)  
 Naperville ('18)  
 Northbrook ('12)  
 Palatine ('15)  
 Pecatonica ('12)  
 Saint Clair County ('12)  
 Shorewood ('18)  
 St. Charles ('15)  
 Streamwood ('12)  
 Sycamore ('15)  
 Tinley Park ('12)  
 Tuscola ('15)  
 Warrenville ('15)  
 Westchester ('12)  
 Westmont ('12)  
 Wheeling ('18)  
 Willowbrook ('18)  
 Winfield ('15)  
 Winnetka ('15)  
 Yorkville ('18)

**Iowa**

Ankeny ('18)  
 Cedar Rapids ('18)  
 Coralville ('18)  
 Des Moines ('18)\*  
 Johnston ('15)  
 Ottumwa ('15)  
 Sioux Center ('15)

**Kansas**

DeSoto ('18)  
 Gardner ('12)  
 Lawrence ('15)  
 Lenexa ('18)  
 Manhattan ('15)  
 Olathe ('12)  
 Wichita ('12)

**Maryland**

Annapolis ('15)  
 Anne Arundel County ('12)  
 Baltimore City ('18)  
 Cecil County ('18)  
 Gaithersburg ('18)  
 Montgomery County ('15)  
 Wicomico County ('15)

**Mississippi**

Biloxi ('18)  
 Diamondhead ('12)  
 D'Iberville ('18)  
 Federal Heights ('12)  
 Garfield County ('12)  
 Gulfport ('18)  
 Pearl River Valley Water Supply District ('15)  
 Senatobia ('18)

**Missouri**

Branson ('18)  
 Cape Girardeau ('15)  
 Chesterfield ('18)  
 Clayton ('15)  
 Creve Coeur ('15)  
 Eureka ('18)  
 Excelsior Springs ('12)  
 Farmington ('15)  
 Frontenac ('15)  
 Gladstone ('15)  
 Higginsville ('15)  
 Hollister ('18)  
 Jackson ('15)  
 Jefferson ('15)  
 Jefferson County ('15)  
 Kearney ('12)  
 Kirkwood ('15)  
 Joplin ('18)  
 Ladue ('15)  
 Lake St. Louis ('15)  
 Liberty ('12)  
 Missouri City ('15)  
 North Kansas City ('12)  
 O'Fallon ('15)  
 Parkville ('18)  
 Platte City ('18)  
 Raymore ('18)  
 Richmond Heights ('18)  
 Rolla ('18)

Sedalia ('15)  
 Sikeston ('12)  
 Springfield ('18)  
 St. Charles ('15)  
 St. Charles County ('15)  
 St. Louis ('18)  
 St. Louis County ('18)  
 St. Peters ('15)  
 Troy ('15)  
 University City ('12)  
 Webster Groves ('15)  
 Wright City ('15)

**Nevada**

Boulder City ('12)  
 Carson City ('18)  
 Clark County ('18)  
 Fernley ('18)  
 Henderson ('12)  
 Humboldt County ('18\*)  
 Las Vegas ('18)  
 North Las Vegas ('18)  
 Sparks ('18)  
 Storey County ('18)  
 Washoe County ('12)  
 West Wendover ('12)  
 Winnemucca ('12)

**Ohio**

Grove City ('18)

**South Carolina**

Aiken ('18)  
 Charleston ('18)  
 Clemson ('18)  
 Edisto Beach ('15)  
 Fort Mill ('18)  
 Georgetown County ('12)  
 Goose Creek ('18)  
 Greenville County ('15)  
 Lancaster County ('18)  
 Moncks Corner ('18)  
 Myrtle Beach ('15)  
 Oconee County ('15)  
 Seneca ('18)  
 Summerville ('18)  
 Surfside Beach ('18)  
 Westminster ('12)

**South Dakota**

Sioux Falls ('21)

**Tennessee**

Alcoa ('18)  
 Brentwood ('12)  
 Farragut ('18)  
 Gallatin ('15)  
 Hendersonville ('18)  
 Knox County ('18)  
 Lincoln County ('18)

Mount Juliet ('12)  
 Murfreesboro ('18)  
 Piperton ('18)  
 Roane County ('12)  
 Rossville ('18)  
 Rutherford County ('18)  
 Smyrna ('18)  
 White House ('12)

**Texas**

Addison ('18)  
 Alvin ('18)  
 Amarillo ('15)  
 Andrews ('15)  
 Angleton ('12)  
 Arlington ('18)  
 Austin ('18)  
 Bangs ('18)  
 Bastrop ('18)  
 Bedford ('18)  
 Bellaire ('18)  
 Bells ('15)  
 Belton ('15)  
 Benbrook ('18)  
 Brenham ('15)  
 Bunker Hill ('18)  
 Canton ('15)  
 Canyon ('15)  
 Carrollton ('18)  
 Cedar Park ('15)  
 Celina ('18)  
 Cibolo ('12)  
 Cleveland ('15)  
 Clute ('15)  
 Corinth ('18)  
 Corpus Christi ('18)  
 Del Rio ('15)  
 DeSoto ('18)  
 Euless ('15)  
 Ferris ('15)  
 Freeport ('15)  
 Frisco ('18)  
 Ft. Worth ('18)  
 Fulshear ('15)  
 Galveston ('12)  
 Grand Prairie ('15)  
 Groesbeck ('18)  
 Gun Barrel City ('15)  
 Haslet ('15)  
 Helotes ('18)  
 Huntsville ('15)  
 Hurst ('15)  
 Jersey Village ('18)  
 Katy ('15)  
 Kerrville ('18)  
 Kilgore ('12)  
 Killeen ('15)  
 Kyle ('15)  
 La Grange ('18)  
 La Porte ('18)  
 LaMarque ('18)  
 Lancaster ('15)  
 Live Oak ('18)  
 Lucas ('15)  
 Mansfield ('18)  
 Manvel ('12)  
 McAllen ('12)  
 McKinney ('18)  
 Meadows Place ('12)  
 Missouri City ('15)  
 Mont Belvieu ('15)  
 Montgomery ('15)  
 New Braunfels ('18)  
 Nolanville ('15)  
 North Richland Hills ('18)  
 Oak Leaf ('12)  
 Palacios ('12)  
 Pattison ('18)  
 Pearland ('18)  
 Pecos ('15)  
 Pharr ('12)  
 Plainview ('15)  
 Plano ('18)  
 Pleasanton ('15)  
 Portland ('15)  
 Princeton ('15)  
 Prosper ('21)  
 Red Oak ('12)  
 Richmond ('15)  
 Roanoke ('18)  
 Rosenberg ('18)  
 Round Rock ('15)  
 Saginaw ('18)  
 San Antonio ('18)  
 San Saba ('15)  
 Santa Fe ('12)  
 Schertz ('12)  
 Seagoville ('18)  
 Seguin ('15)  
 Shoreacres ('15)  
 South Lake ('18)  
 Southside Place ('18)  
 Spring Valley ('18)  
 Taylor Lake Village ('18)  
 Tool ('15)  
 Universal City ('15)  
 Uvalde ('15)  
 Waco ('15)  
 Watauga ('18)  
 Webster ('15)  
 West University Place ('12)  
 Wharton ('12)  
 Wylie ('12)

**Wyoming**

Rawlins ('15)  
 Thermopolis ('18)

**Cayman Islands ('15)**

(\*): indicates update to ISPSC year

<https://www.phta.org/standards-and-codes/ispsc/>



# CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE

## APPENDIX AX – SWIMMING POOL SAFETY ACT

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.  
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/ CC	1	1R	2	3	4								
Adopt entire chapter	X																					
Adopt entire chapter as amended (amended sections listed below)																						
Adopt only those sections that are listed below																						
Chapter / Section																						

### APPENDIX AX

## SWIMMING POOL SAFETY ACT

*(Note: See Chapter 31, Section 3109 of the California Building Code, Title 24, Part 2.)  
The provisions contained in this appendix are mandatory to reflect the  
Swimming Pool Safety Act found in Health and Safety Code Sections 115920 through 115929.*

**AX100 California swimming pool safety act (statewide).**

The following text in this section contains the statutory language in the Swimming Pool Safety Act (HS Code, Sections 115920 through 115929) that is required to be duplicated and published in California Code of Regulations, Title 24. As such, the section numbers reflect those within the Health and Safety Code.

*NOTE: These regulations are subject to local government modification. You should verify the applicable local government requirements at the time of application for a building permit.*

**Authority:** Health and Safety Code Section 18942(b)

**Reference:** Health and Safety Code Section 18942(b); Chapter 925, Statutes of 1996

**115920.** This act shall be known and may be cited as the Swimming Pool Safety Act.

*(Added by Stats. 1996, Ch. 925, Sec. 3.5. Effective January 1, 1997.)*

**115921.** As used in this article the following terms have the following meanings:

- (a) "Swimming pool" or "pool" means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas and nonportable wading pools.
- (b) "Public swimming pool" means a swimming pool operated for the use of the general public with or without charge, or for the use of the members and guests of a private club. Public swimming pool does

not include a swimming pool located on the grounds of a private single-family home.

- (c) "Enclosure" means a fence, wall or other barrier that isolates a swimming pool from access to the home.
- (d) "Approved safety pool cover" means a manually or power-operated safety pool cover that meets all of the performance standards of the American Society for Testing and Materials (ASTM), in compliance with standard F1346-91.
- (e) "Exit alarms" means devices that make audible, continuous alarm sounds when any door or window, that permits access from the residence to the pool area that is without any intervening enclosure, is opened or is left ajar. Exit alarms may be battery operated or may be connected to the electrical wiring of the building.
- (f) "ANSI/APSP performance standard" means a standard that is accredited by the American National Standards Institute (ANSI) and published by the Association of Pool and Spa Professionals (APSP).
- (g) "Suction outlet" means a fitting or fixture typically located at the bottom or on the sides of a swimming pool that conducts water to a recirculating pump.

*[Amended by Stats. 2012, Ch. 679, Sec. 1. (AB 2114) Effective January 1, 2013.]*

**115922.**

- (a) Except as provided in Section 115925, when a building permit is issued for the construction of a new swimming pool or spa or the remodeling of an existing swimming pool or spa at a private single-family

home, the respective swimming pool or spa shall be equipped with at least two of the following seven drowning prevention safety features:

- (1) An enclosure that meets the requirements of Section 115923 and isolates the swimming pool or spa from the private single-family home.
- (2) Removable mesh fencing that meets American Society for Testing and Materials (ASTM) Specifications F2286 standards in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.
- (3) An approved safety pool cover, as defined in subdivision (d) of Section 115921.
- (4) Exit alarms on the private single-family home's doors that provide direct access to the swimming pool or spa. The exit alarm may cause either an alarm noise or a verbal warning, such as a repeating notification that "the door to the pool is open."
- (5) A self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor on the private single-family home's doors providing direct access to the swimming pool or spa.
- (6) An alarm that, when placed in a swimming pool or spa, will sound upon detection of accidental or unauthorized entrance into the water. The alarm shall meet and be independently certified to the ASTM Standard F2208 "Standard Safety Specification for Residential Pool Alarms," which includes surface motion, pressure, sonar, laser and infrared type alarms. A swimming protection alarm feature designed for individual use, including an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water, is not a qualifying drowning prevention safety feature.
- (7) Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the features set forth above and has been independently verified by an approved testing laboratory as meeting standards for those features established by the ASTM or the American Society of Mechanical Engineers (ASME).

- (b) Before the issuance of a final approval for the completion of permitted construction or remodeling work, the local building code official shall inspect the drowning safety prevention features required by this section and, if no violations are found, shall give final approval. [Amended by Stats. 2017, Ch. 670, Sec. 4. (SB 442) Effective January 1, 2018.]

**115923.** An enclosure shall have all of the following characteristics:

- (a) Any access gates through the enclosure open away from the swimming pool and are self-closing with a

self-latching device placed no lower than 60 inches above the ground.

- (b) A minimum height of 60 inches.
- (c) A maximum vertical clearance from the ground to the bottom of the enclosure of two inches.
- (d) Gaps or voids, if any, do not allow passage of a sphere equal to or greater than four inches in diameter.
- (e) An outside surface free of protrusions, cavities or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.

(Added by Stats. 1996, Ch. 925, Sec. 3.5. Effective January 1, 1997.)

**115924.**

- (a) Any person entering into an agreement to build a swimming pool or spa, or to engage in permitted work on a pool or spa covered by this article, shall give the consumer notice of the requirements of this article.
- (b) Pursuant to existing law, the Department of Health Services shall have available on the department's Web site, commencing January 1, 2007, approved pool safety information available for consumers to download. Pool contractors are encouraged to share this information with consumers regarding the potential dangers a pool or spa poses to toddlers. Additionally, pool contractors may provide the consumer with swimming pool safety materials produced from organizations such as the United States Consumer Product Safety Commission, Drowning Prevention Foundation, California Coalition for Children's Safety & Health, Safe Kids Worldwide, Association of Pool and Spa Professionals, or the American Academy of Pediatrics.

(Amended by Stats. 2006, Ch. 478, Sec. 3. Effective January 1, 2007.)

**115925.** The requirements of this article do not apply to any of the following:

- (a) Public swimming pools.
- (b) Hot tubs or spas with locking safety covers that comply with the American Society for Testing and Materials (ASTM F1346).
- (c) An apartment complex or any residential setting other than a single-family home.

[Amended by Stats. 2017, Ch. 670, Sec. 5. (SB 442) Effective January 1, 2018.]

**115926.** This article does not apply to any facility regulated by the State Department of Social Services even if the facility is also used as the private residence of the operator. Pool safety in those facilities shall be regulated pursuant to regulations adopted therefor by the State Department of Social Services.

(Added by Stats. 1996, Ch. 925, Sec. 3.5. Effective January 1, 1997.)

**115927.** Notwithstanding any other provision of law, this article shall not be subject to further modification or interpretation by any regulatory agency of the state, this authority being reserved exclusively to local jurisdictions, as provided for in paragraph (7) of subdivision (a) of Section 115922 and subdivision (c) of Section 115925.

(Amended by Stats. 2018, Ch. 957, Sec. 13. (SB 1078) Effective January 1, 2019.)

**115928.** Whenever a building permit is issued for the construction of a new swimming pool or spa, the pool or spa shall meet all of the following requirements:

- (a) (1) The suction outlets of the pool or spa for which the permit is issued shall be equipped to provide circulation throughout the pool or spa as prescribed in paragraphs (2) and (3).
  - (2) The swimming pool or spa shall either have at least two circulation suction outlets per pump that shall be hydraulically balanced and symmetrically plumbed through one or more “T” fittings, and that are separated by a distance of at least three feet in any dimension between the suction outlets, or be designed to use alternatives to suction outlets, including, but not limited to, skimmers or perimeter overflow systems to conduct water to the recirculation pump.
  - (3) The circulation system shall have the capacity to provide a complete turnover of pool water, as specified in Section 3124B of Chapter 31B of the California Building Standards Code (Title 24 of the California Code of Regulations).
- (b) Suction outlets shall be covered with antientrapment grates, as specified in the ANSI/APSP-16 performance standard or successor standard designated by the federal Consumer Product Safety Commission, that cannot be removed except with the use of tools. Slots or openings in the grates or similar protective devices shall be of a shape, area and arrangement that would prevent physical entrapment and would not pose any suction hazard to bathers.
- (c) Any backup safety system that an owner of a new swimming pool or spa may choose to install in addition to the requirements set forth in subdivisions (a) and (b) shall meet the standards as published in the document, “Guidelines for Entrapment Hazards: Making Pools and Spas Safer,” Publication Number 363, March 2005, United States Consumer Product Safety Commission.

[Amended by Stats. 2012, Ch. 679, Sec. 2. (AB 2114) Effective January 1, 2013.]

**115928.5.** Whenever a building permit is issued for the remodel or modification of an existing swimming pool, toddler pool or spa, the permit shall require that the suction outlet or suction outlets of the existing swimming pool, toddler pool or spa be upgraded so as to be equipped with

antientrapment grates, as specified in the ANSI/APSP-16 performance standard or a successor standard designated by the federal Consumer Product Safety Commission.

[Amended by Stats. 2012, Ch. 679, Sec. 3. (AB 2114) Effective January 1, 2013.]

**115929.**

- (a) The Legislature encourages a private entity, in consultation with the Epidemiology and Prevention for Injury Control Branch of the department, to produce an informative brochure or booklet, for consumer use, explaining the child drowning hazards of, possible safety measures for and appropriate drowning hazard prevention measures for home swimming pools and spas, and to donate the document to the department.
- (b) The Legislature encourages the private entity to use existing documents from the United States Consumer Product Safety Commission on pool safety.
- (c) If a private entity produces the document described in subdivisions (a) and (b) and donates it to the department, the department shall review and approve the brochure or booklet.
- (d) Upon approval of the document by the department, the document shall become the property of the state and a part of the public domain. The department shall place the document on its Web site in a format that is readily available for downloading and for publication. The department shall review the document in a timely and prudent fashion and shall complete the review within 18 months of receipt of the document from a private entity.

(Added by Stats. 2003, Ch. 422, Sec. 3. Effective January 1, 2004.)

## 2021 International Swimming Pool and Spa Code Amended

Chapter 1 through 3 and Chapter 7 through 11 of the 2021 International Swimming Pool and Spa Code (ISPSA) is adopted by reference as the Swimming Pool and Spa Code of [NAME OF JURISDICTION] and is hereby amended, deleted or added to as follows:

1. Where the term *International Building Code* is used it shall be replaced with the term *California Building Code*.
2. Where the term *International Residential Code* is used it shall be replaced with the term *California Residential Code (CRC)*.
3. Where the term *International Plumbing Code* is used it shall be replaced with the term *California Plumbing Code*.
4. Where the term *International Energy Conservation Code* is used it shall be replaced with the term *California Energy Code (CEC)*.
5. Where the term *International Fire Code* is used it shall be replaced with the term *California Fire Code*.
6. Where the term *International Fuel Gas Code* is used it shall be replaced with the term *California Plumbing Code*.
7. Where the term *International Mechanical Code* is used it shall be replaced with the term *California Mechanical Code*.
8. Where the term *NFPA 70* is used it shall be replaced with the term *California Electrical Code (CElec)*.

### 9. Revise Section 101.1 as follows:

**101.1 Title.** These regulations shall be known as the International Swimming Pool and Spa Code of [NAME OF JURISDICTION], hereinafter referred to as “this code.”

### 10. Delete Part 1-Scope and Application, Sections 101.2 through 102.10 and **replace with local requirements** **[Insert local jurisdiction administrative code requirements]**

### 11. Delete Part 2- Administrative and Enforcement, Sections 103 through 108 and **replace with local requirements** **[Insert local jurisdiction administrative code requirements]**

### 12. Add the following sections to your jurisdiction’s administrative section of the Code from 2022 APPENDIX AX – SWIMMING POOL SAFETY ACT:

#### **2022 CRC APPENDIX AX 115924 Agreement to Build:**

- (a) Any person entering into an agreement to build a swimming pool or spa, or to engage in permitted work on a pool or spa covered by this article, shall give the consumer notice of the requirements of this article.
- (b) Pursuant to existing law, the Department of Health Services shall have available on the department’s Web site, commencing January 1, 2007, approved pool safety information available for consumers to download. Pool contractors are encouraged to share this information with consumers regarding the potential dangers a pool or spa poses to toddlers. Additionally, pool contractors may provide the consumer with swimming pool safety materials produced from organizations such as the United States Consumer Product Safety Commission, Drowning Prevention Foundation, California Coalition for Children’s Safety & Health, Safe Kids Worldwide, Association of Pool and Spa Professionals, or the American Academy of Pediatrics.

#### **2022 CRC APPENDIX AX 115925. The requirements of this article do not apply to any of the following:**

- (a) Public swimming pools.
- (b) Hot tubs or spas with locking safety covers that comply with the American Society for Testing and Materials (ASTM F1346).
- (c) An apartment complex, or any residential setting other than a single-family home.

**2022 CRC APPENDIX AX 115926. This article does not apply to any facility regulated by the State Department of Social Services even if the facility is also used as the private residence of the operator. Pool safety in those facilities shall be regulated pursuant to regulations adopted therefor by the State Department of Social Services.**



2022 CRC APPENDIX AX 115927. Notwithstanding any other provision of law, this article shall not be subject to further modification or interpretation by any regulatory agency of the state, this authority being reserved exclusively to local jurisdictions, as provided for in paragraph (7) of subdivision (a) of Section 115922 and subdivision (c) of Section 115925.

13. Add or amend the following definitions to Chapter 2 from 2022 APPENDIX AX – SWIMMING POOL SAFETY ACT:

“Swimming pool” or “pool” means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. “Swimming pool” includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and nonportable wading pools.

~~**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.~~

~~**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.~~

~~**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.~~

“Public swimming pool” means a swimming pool operated for the use of the general public with or without charge, or for the use of the members and guests of a private club. Public swimming pool does not include a swimming pool located on the grounds of a private single-family home.

“Enclosure” means a fence, wall, or other barrier that isolates a swimming pool from access to the home.  
“Approved safety pool cover” means a manually or power-operated safety pool cover that meets all of the performance standards of the American Society for Testing and Materials (ASTM), in compliance with standard F1346-91.

“Exit alarms” means devices that make audible, continuous alarm sounds when any door or window, that permits access from the residence to the pool area that is without any intervening enclosure, is opened or is left ajar. Exit alarms may be battery operated or may be connected to the electrical wiring of the building.

“ANSI/APSP performance standard” means a standard that is accredited by the American National Standards Institute (ANSI) and published by the Association of Pool and Spa Professionals (APSP).

~~**SUCTION OUTLET.** A submerged fitting, fitting assembly, cover/grate and related components that provide a localized low-pressure area for the transfer of water from a swimming pool, spa or hot tub. Submerged suction outlets have been referred to as main drains.~~

“Suction outlet” means a fitting or fixture typically located at the bottom or on the sides of a swimming pool that conducts water to a recirculating pump.

**14. Add Section 301.1.2. as follows:**

**301.1.2 Conflicts.** In the event of a conflict between the provisions of the Swimming Pool Safety Act, the International Swimming Pool and Spa Code, 2021 Edition, the 2022 California Building Code, or the 2022 California Residential Code, the Building Official shall implement the most restrictive measures cited.

**15. Add Section 303.1.2.1 as follows:**

**303.1.2.1 Operating time.** A time switch or other control mechanism shall be installed as part of a pool water circulation control system that will allow all pumps to be set or programmed to run only during off-peak electric demand period, and for the minimum time necessary to maintain the water in the condition required by applicable public health standards.

**16. Section 303.1.3 is amended as follows:**

**303.1.3 Covers.** A cover is required for outdoor pools or outdoor spas that have a heat pump or gas heater *Exception:* Pools or spas deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy.

**17. Section 305.2 is amended as follows:**

**305.2 Outdoor swimming pools and spas.** Other than those facilities regulated in Section 305.8, all outdoor *pools and spas* and indoor swimming pools shall be surrounded by a *barrier* that complies with Sections 305.2.1 through 305.7.

**18. Per 2022 CRC APPENDIX AX 115922 Add Section 305.8 as follows:**

**305.8 Construction permit; safety features required.**

Except as provided in Section 115925, When a building permit is issued for the construction of a new swimming pool or spa or the remodeling of an existing swimming pool or spa at a private single-family home, the respective swimming pool or spa shall be equipped with at least two of the following seven drowning prevention safety features:

- (1) An enclosure that meets the requirements of Section 115923 and isolates the swimming pool or spa from the private single-family home.
- (2) Removable mesh fencing that meets American Society for Testing and Materials (ASTM) Specifications F2286 standards in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.
- (3) An approved safety pool cover, as defined in subdivision (d) of Section 115921.
- (4) Exit alarms on the private single-family home’s doors that provide direct access to the swimming pool or

spa. The exit alarm may cause either an alarm noise or a verbal warning, such as a repeating notification that "the door to the pool is open."

- (5) A self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor on the private single-family home's doors providing direct access to the swimming pool or spa.
- (6) An alarm that, when placed in a swimming pool or spa, will sound upon detection of accidental or unauthorized entrance into the water. The alarm shall meet and be independently certified to the ASTM Standard F2208 "Standard Safety Specification for Residential Pool Alarms," which includes surface motion, pressure, sonar, laser, and infrared type alarms. A swimming protection alarm feature designed for individual use, including an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water, is not a qualifying drowning prevention safety feature.
- (7) Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the features set forth above and has been independently verified by an approved testing laboratory as meeting standards for those features established by the ASTM or the American Society of Mechanical Engineers (ASME).

**19. Per 2022 CRC APPENDIX AX 115923 Add Section 305.9 as follows:**

**305.9 Enclosure; required characteristics.**

An enclosure shall have all of the following characteristics:

- (a) Any access gates through the enclosure open away from the swimming pool and are self-closing with a self-latching device placed no lower than 60 inches above the ground.
- (b) A minimum height of 60 inches.
- (c) A maximum vertical clearance from the ground to the bottom of the enclosure of two inches.
- (d) Gaps or voids, if any, do not allow passage of a sphere equal to or greater than four inches in diameter.
- (e) An outside surface free of protrusions, cavities, or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.

**20. Per 2022 CRC APPENDIX AX 115928 and 115928.5 Add Section 310.2 as follows:**

**310.2 Construction Requirements for building a pool or spa.** Whenever a building permit is issued for the construction of a new swimming pool or spa, the pool or spa shall meet all of the following requirements:

(1) The suction outlets of the pool or spa for which the permit is issued shall be equipped to provide circulation throughout the pool or spa as prescribed in paragraphs (2) and (3).

(2) The swimming pool or spa shall either have at least two circulation suction outlets per pump that shall be hydraulically balanced and symmetrically plumbed through one or more "T" fittings, and that are separated by a distance of at least three feet in any dimension between the suction outlets, or be designed to use alternatives to suction outlets, including, but not limited to, skimmers or perimeter overflow systems to conduct water to the recirculation pump.

(3) The circulation system shall have the capacity to provide a complete turnover of pool water, as specified in Section 3124B of Chapter 31B of the California Building Standards Code (Title 24 of the California Code of Regulations).

(4) Suction outlets shall be covered with antientrapment grates, as specified in the ANSI/APSP-16 performance standard or successor standard designated by the federal Consumer Product Safety Commission, that cannot be removed except with the use of tools. Slots or openings in the grates or similar protective devices shall be of a shape, area, and arrangement that would prevent physical entrapment and would not pose any suction hazard to bathers.

(5)Any backup safety system that an owner of a new swimming pool or spa may choose to install in addition to the requirements set forth in subdivisions (a) and (b) shall meet the standards as published in the document, "Guidelines for Entrapment Hazards: Making Pools and Spas Safer," Publication Number 363, March 2005, United States Consumer Product Safety Commission.

### **310.2.1 Existing Pool, Toddler Pool, or Spa**

115928.5. Whenever a building permit is issued for the remodel or modification of an existing swimming pool, toddler pool, or spa, the permit shall require that the suction outlet or suction outlets of the existing swimming pool, toddler pool, or spa be upgraded so as to be equipped with antientrapment grates, as specified in the ANSI/APSP-16 performance standard or a successor standard designated by the federal Consumer Product Safety Commission.

## **21. Add Section 316.2.1 (a) and (b) as follows:**

**316.2.1 (a) Certification by manufacturers.** Heating systems and equipment shall be certified by the manufacturer that the heating system and equipment complies with the following:

**1. Efficiency.** A thermal efficiency that complies with the Appliance Efficiency Regulations in Title 20, Division 2, Chapter 4, Article 4 of the California Code of Regulations; and

**2. Instructions.** A permanent, easily readable and weatherproof plate or card that gives instruction for the energy efficient operation of the pool or spa heater and for the proper care of pool or spa water when a cover is used; and

**3. Electric resistance heating.** No electric resistance heating; and

Exception 1 to Section 110.4(a)4: Listed package units with fully insulated enclosures, and with tight-fitting covers that are insulated to at least R-6.

Exception 2 to Section 110.4(a)4: Pools or spas deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy.

**316.2.1 (b) Installation.** Any pool or spa system or equipment shall be installed with all of the following:

**1. Piping.** At least 36 inches of pipe shall be installed between the filter and the heater or dedicated suction and return lines, or built-in or built-up connections shall be installed to allow for the future addition of solar heating equipment.

**2. Directional inlets.** The swimming pool shall have directional inlets that adequately mix the pool water.

## **22. Add Section 318.4:**

**318.4** Water conservation efficiency in residential and public pools, spas, portable spas and swim spas shall be provided for in accordance with APSP 13.

## **23. Revise and amend Chapter 9 as follows:**

Delete section 901.2: ~~901.2General.~~

~~Permanent residential spas and permanent residential exercise spas shall comply with Chapter 5 except that Sections 504.1, 504.1.1, 508.1 and 509 shall not apply. Such spas shall comply with the requirements of Chapter 3.~~

Add Sections 903-908 as follows

### **SECTION 903 MATERIALS**

#### **903.1 Pumps and motors.**

Pumps and motors shall be listed and labeled for use in spas.

### **SECTION 904 STRUCTURE AND DESIGN**

#### **904.1 Water depth.**

The maximum water depth for spas shall be 4 feet (1219 mm) measured from the *design waterline* except for spas that are designed for special purposes and *approved* by the authority having jurisdiction. The water depth for exercise spas shall not exceed 6 feet 6 inches (1981 mm) measured from the *design waterline*.

**904.2 Multilevel seating.**

Where multilevel seating is provided, the maximum water depth of any seat or sitting bench shall be 28 inches (711 mm) measured from the *design waterline* to the lowest measurable point.

**904.3 Floor slope.**

The slope of the floor shall not exceed 1 unit vertical in 12 units horizontal (8.3-percent slope). Where multilevel floors are provided, the change in depth shall be indicated.

**SECTION 905**  
**PUMPS AND MOTORS**

**905.1 Emergency shutoff switch.**

One emergency shutoff switch shall be provided to disconnect power to circulation and jet system pumps and air blowers. Emergency shutoff switches shall be accessible, located within sight of the spa and shall be located not less than 5 feet (1524 mm) but not greater than 10 feet (3048 mm) horizontally from the inside walls of the spa.

**905.2 Timer.**

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

**SECTION 906**  
**RETURN AND SUCTION FITTINGS**

**906.1 Return fittings.**

Return fittings shall be provided and arranged to facilitate a uniform circulation of water and maintain a uniform sanitizer residual throughout the entire spa or exercise spa.

**906.2 Suction fittings.**

Suction fittings shall be in accordance with [Sections 505.2.1 through 505.2.4](#).

**906.2.1 Testing and certification.**

Suction fittings shall be *listed* and *labeled* in accordance with [APSP 16](#).

**906.2.2 Installation.**

Suction fittings shall be sized and installed in accordance with the manufacturer's specifications. Spas and exercise spas shall not be used or operated if the suction outlet cover is missing, damaged, broken or loose.

**906.2.3 Outlets per pump.**

Suction fittings shall be provided in accordance with [Section 310](#).

**906.2.4 Submerged vacuum fittings.**

*Submerged vacuum fittings* shall be in accordance with [Section 310](#).

**SECTION 907**  
**HEATER AND TEMPERATURE REQUIREMENTS**

**907.1 General.**

This section pertains to fuel-fired and electric appliances used for heating spa or exercise spa water.

**907.2 Water temperature controls.**

Components provided for water temperature controls shall be suitable for the intended application.

**907.2.1 Water temperature regulating controls.**

Water temperature regulating controls shall comply with [UL 873](#) or [UL 372](#). A means shall be provided to indicate the water temperature in the spa.

**Exception:** Water temperature regulating controls that are integral to the heating appliance and *listed* in accordance with the applicable end use appliance standard.

**907.2.2 Water temperature limiting controls.**

Water temperature limiting controls shall comply with [UL 873](#) or [UL 372](#). Water temperature at the heater return outlet shall not exceed 140°F (60°C).

**SECTION 908**  
**WATER SUPPLY**

**908.1Water temperature.**

The temperature of the incoming makeup water shall not exceed 104°F (40°C).

**24. Add the following reference standard to Chapter 11**

<b><u>STANDARD ACRONYM</u></b>	<b><u>STANDARD NAME</u></b>	<b><u>SECTIONS HEREIN REFERENCED</u></b>
<u>ANSI/APSP/ICC-13- 2017</u>	<u>American National Standard for Water Conservation Efficiency in Residential and Public Pools, Spas, Portable Spas and Swim Spas</u>	<u>318.4</u>

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