



Aquatic Facility Safety

The purpose of this fact sheet is provide best practices to pool operators and to aid in developing rules and checklists that meet the specific needs of your facility. Facility operators should contact local health department officials regarding requirements for rules and inspections.

Principle Causes of Drowning and Pool-Related Injuries

Drowning and pool-related injuries in public pools are preventable through a comprehensive program including the proper design of the facility, staff certification and training, frequent management inspections and feedback from staff and visitors. The following hazards are the proximate causes of most losses related to swimming pools and their operations.

| Unsafe Acts | Unsafe Conditions |
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| Inadequate emergency plan | Broken or missing rescue equipment |
| Poor training of staff | Inadequate lifeguard staffing |
| Permitting shallow water diving | Insufficient water depth or markings |
| Poor lifeguard positioning | Planned zone of lifeguard coverage too large |
| Improper pool design | Cloudy water, obstructed view |
| Failure to post rules | Electrocutions |
| Failure to warn of dangerous conditions | Lack of depth markings |
| Entrapment in unapproved drains | Inadequate fencing |
| Running in pool area | Improper pool coatings and materials |
| Negligent supervision of pool users | Unfastened/missing drain covers |

Management and Employee Participation

- A certified lifeguard should be on duty and present whenever and wherever there is swimming activity.
- Staff additional lifeguards based on the activity, number of participants, type of pool and place of swimming, (such as at a lake or stream).
- The facility should be in compliance with all applicable local, state and federal codes.
- The operation and activities should be managed by a certified operator who will oversee all safety programs.
- Training and other records must be well maintained.
- Liability agreements (e.g., waivers, assumptions of risk) should be incorporated in all contracts and participation agreements. All risk transfer devices should be drafted or reviewed by an attorney or other knowledgeable person.

Training Topics

Provide regular training and drills for all employees working at aquatic facilities. Training should include facility-specific emergency procedures, rescue equipment, skills update and testing such as:

- Emergency reporting procedures
- CPR
- Rescue breathing in deep and shallow water
- Deep water back boarding procedures
- Bag valve mask and oxygen therapy
- Submerged victim search and rescue procedures
- Multiple victim retrieval from a lightning strike
- Removing unruly patrons
- Seizure victim stabilization
- Allergic reaction first aid
- Scanning and zone coverage skills
- Assisting individuals with disabilities
- Bloodborne pathogens training for all rescue personnel per the Cal/OSHA standard
- All staff should be familiar with the Virginia Graeme Baker Pool and Spa Safety Act. Follow all federal, state, and local requirements for suction entrapment avoidance through use of approved drain systems and safety drain covers.

Pool Signage

- Ensure that all swimming pool signage is visible and up to current and local code
- Signage next to the emergency phone describes whether how to dial (911, 9-911, lift and talk)
- Facility information (name, address, direct phone, etc.) is posted next to the emergency phone
- No diving symbols near depth markers are in proper place
- Water depth markers are visible and at correct depths

Maintenance

- Review daily inspections and make any corrective actions immediately, document this information in a daily pool log or journal.
- Ensure the pool self-closing doors or self-locking gates are operational
- Check and maintain all safety equipment
- Make sure the pool water filtration and disinfection systems are on a scheduled preventive maintenance program.
- Identify all lifesaving equipment 'For Emergency Use Only.'
- Ensure all lighting is functional including underwater lights.

References and Resources

- Virginia Graeme Baker Pool and Spa Safety Act SR 019 (www.cpsc.gov/pssa.pdf)
- ADA Requirements: Accessible Pools (www.ada.gov) .
- American Red Cross (www.redcross.org)
- International Life Saving Federation (www.ilsf.org)
- US Lifesaving Association (www.usla.org)
- YMCA (www.ymca.net).

Aquatic Standards

- American National Standard for Public Swimming Pools, ANSI/NSPI-1, 2003. (www.ansi.org)
- Lifeguard Management Course, American Red Cross. (www.redcross.org)
- Open Water Lifesaving: The United States Lifesaving Association Manual, United States Lifesaving Association, 2003. (www.usla.org)
- Pool and Spa Safety Act: Consumer Product Safety Commission, 2007. (www.cpsc.gov)
- USA Swimming Rules and Regulations: USA Swimming, 2005, 1 Olympic Plaza, Colorado Springs, CO, 80909. (www.usaswimming.org)
- Guidelines for Entrapment Hazards: U.S. Consumer Product Safety Commission Publication 363, Washington, D.C. (www.cpsc.gov)
- Part 1207 - Safety Standard for Swimming Pool Slides: Code of Federal Regulations 16 CFR 1207. (<http://federal.eregulations.us/cfr/listview/1/3/2012/Title16/ChapterII/Part1207.html>)
- Virginia Graeme Baker Pool and Spa Safety Act, SR 019. (www.cpsc.gov/pssa.pdf)

Regulatory Agencies

- California Department of Public Health, <http://www.cdph.ca.gov/healthinfo/environhealth/water/pages/californiapublicswimmingpoolrequirements.aspx>
- Consumer Products Safety Commission (www.CPSC.gov)
- Department of Transportation (www.dot.gov)
- Environmental Protection Agency (www.epa.gov)
- Equal Employment Opportunity Commission (www.eeoc.gov)
- Occupational Safety and Health Administration (www.osha.gov)
- US Centers for Disease Control and Prevention, Health Swimming, (www.cdc.gov/healthywater)

Other

- Association of Pool and Spa Professionals -formerly the National Spa and Pool Institute - (www.apsp.org)
- National Swimming Pool Foundation (www.nspf.org)
- Professional Pool Operators of America (www.ppoa.org)
- USA Swimming (www.usaswimming.org)

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