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AIRE Bulletin

Pool and Spa Safety for Hospitality and Multifamily Properties

Pools and spas are common amenities in hospitality and multifamily properties and are frequently associated with guest satisfaction and tenant retention. However, aquatic facilities also introduce significant life safety, liability, and regulatory compliance exposures. Drowning, entrapment, slips and falls, chemical injuries, and waterborne illness remain leading causes of severe loss associated with pools and spas.

This bulletin outlines current risk considerations and best practices for the design, operation, and management of pool and spa facilities, reflecting updated industry standards, regulatory requirements, and advancements in safety technology.

Defining the Risk Exposure

Pool and spa exposures extend beyond the water itself and should be evaluated as a combination of operational, mechanical, human, and environmental factors. Key exposure categories include drowning and near drowning events, suction entrapment, chemical handling and storage, electrical hazards, slip and fall injuries, and inadequate supervision or access control.

Properties without lifeguard supervision face elevated severity potential, particularly in multifamily and extended stay hospitality occupancies where children may have frequent, unsupervised access. Risk management strategies should be proportional to usage patterns, occupancy type, and historical loss experience.

Physical Barriers, Access Control, and Visibility

Effective access control remains one of the most reliable methods for reducing unauthorized or unsupervised pool use. Pools and spas should be fully enclosed with fencing or physical barriers designed to prevent unintended entry, particularly after hours. Gates should be self-closing and self-latching, with hardware positioned to reduce child access.

Advances in access control technology, including key card systems, mobile credentialing, and time restricted access programming, provide enhanced control and auditability. Adequate lighting of pool decks, water surfaces, and surrounding areas improves visibility for users and responders and reduces slip, trip, and fall exposures during evening hours.

Drain Entrapment and Circulation System Safety

Drain entrapment remains a critical life safety hazard, particularly for children. The Virginia Graeme Baker Pool and Spa Safety Act (VGB Act) established federal requirements for suction outlet covers and secondary anti entrapment systems in public pools and spas. Compliance should be verified through regular inspection and documentation.

Modern pool designs increasingly incorporate multiple main drains, unblockable drain configurations, and advanced suction vacuum release systems (SVRS) that rapidly reduce suction when abnormal flow conditions are detected. These systems should be inspected, tested, and maintained in accordance with manufacturer guidance and applicable codes.

Water Quality, Monitoring, and Chemical Safety

Maintaining water clarity and chemical balance is essential for both swimmer safety and operational risk management. Poor water quality increases the likelihood of illness; obscures submerged hazards and complicates rescue efforts.

Automated chemical controllers and remote water quality monitoring technologies are increasingly used to improve consistency, reduce human error, and provide alerts when parameters fall outside acceptable ranges. Regardless of automation, routine manual testing, logging, and verification remain critical.

Chemical storage and handling practices should follow current safety data sheet (SDS) guidance, with proper segregation, ventilation, secondary containment, and staff training to reduce the risk of chemical burns, toxic gas release, or incompatible chemical reactions.

Slip, Trip, and Fall Prevention

Wet surfaces, changes in elevation, and pool deck congestion contribute to frequent nonfatal injury claims. Deck surfaces should be slip resistant, well maintained, and free of trip hazards. Handrails, ladders, and steps should be securely anchored and inspected regularly.

Depth markers, transitions between shallow and deep areas, and pool rules should be clearly visible and legible. Where diving is not permitted, signage and physical design should reinforce the prohibition.

Emergency Preparedness and Response Planning

Technology and physical safeguards are only effective when paired with a well-defined response plan. Properties should maintain a documented emergency action plan addressing aquatic rescues, medical emergencies, chemical incidents, and severe weather.

Safety equipment such as rescue hooks, life rings, and emergency shutoffs should be readily accessible and inspected regularly. Staff should be trained in emergency procedures, CPR, and escalation protocols, with refresher training conducted at defined intervals. Clear signage should indicate whether lifeguards are present and outline emergency contact procedures.

Accessibility and Inclusive Design Considerations

The Americans with Disabilities Act (ADA) establishes specific accessibility requirements for pools, wading pools, and spas, including accessible means of entry and exit. Equipment such as pool lifts or sloped entries should be installed and maintained in accordance with manufacturer specifications and regulatory guidance.

Ongoing inspection and functional testing of accessibility equipment is essential to ensure availability and reduce liability associated with noncompliance or equipment failure.

Third Party Oversight and Vendor Management

Pool maintenance and service providers play a critical role in risk outcomes. Properties should utilize written contracts that clearly define scope of work, responsibilities, and performance expectations. Certificates of insurance should be obtained and reviewed, with appropriate additional insured status and contractual risk transfer provisions in place.

Vendor performance should be monitored through periodic audits, service logs, and incident reviews to ensure alignment with property standards and regulatory requirements.

Final Considerations

Pool and spa risks can be effectively managed through a layered approach that integrates physical design, modern safety technology, disciplined operations, and trained personnel. No single control eliminates risk entirely; effectiveness depends on consistent execution, inspection, and response.

Pool and spa safety programs should be periodically reviewed to reflect changes in regulations, technology, usage patterns, and loss of experience. Proactive management not only reduces the likelihood of severe injury but also supports stronger liability outcomes and more resilient operations.

Arch Insurance Risk Engineers (AIRE) Bulletin

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