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ABOUT THESE GUIDELINES

The guidelines in this document are intended to be a foundation for aquatic safety for member YMCAs. Designed for Y staff and volunteers to use in developing operating protocols that conform to industry standards and best practices, these guidelines are not to be considered a uniform standard for all Ys. YMCA of the USA encourages individual Ys to create and adopt operating standards based on, or inspired by, this document. These guidelines are subject to current local, state, and federal laws and ordinances. In the event of a conflict between such laws and ordinances and these guidelines, follow the more stringent of the two.

HOW TO USE THIS DOCUMENT

This document is intended to be descriptive and user-friendly. Please note the following as you review these guidelines:

Sections
Topics in this document are categorized into six sections:

- Administration
- Training
- Supervision
- Facilities and Equipment
- Minimizing Risks
- Specific Environments and Activities.

At the beginning of each section is a philosophical statement that guides that particular section. The first five sections contain aquatic safety information universal to operating an aquatic facility. The sixth section contains aquatic safety information that may be unique and may not necessarily apply to all Ys.

Rationales
Rationales provide further explanation, clarification, or source material for certain complex topic areas. Rationales are not provided for each topic.

Definitions
Definitions are provided at the end of this document for terms that may be unique to these guidelines and for concepts that lack a universal name and description across the aquatics industry. Defined terms are identified in bold the first time they appear.

Hyperlinks
Hyperlinks are found throughout this document and provide the user access to sample forms and visual descriptions of specific topics and concepts. All hyperlinks link to the appropriate content located on www.ymcaexchange.org.
SECTION 1 – ADMINISTRATION

Administration is essential to operating a safe and efficient aquatic environment. It provides guidelines, policies, and procedures as well as accountability for safety implementation strategies.

AL  AQUATIC LEADERSHIP

AL-1 Ensure that aquatic leadership positions require the following minimum credentials. In some cases, these credentials may be acquired after hiring. (See LT-2.)

- YMCA Lifeguard or equivalent
- Professional rescuer CPR (CPR Pro)
- Automated external defibrillation (AED)
- Emergency oxygen administration
- First aid
- Pool Operator On Location (POOL) certification or equivalent

Rationale: These are basic certifications for an aquatic leadership position. Candidates lacking these certifications may not be fully prepared to perform appropriately during emergency situations.

AL-2 Hire candidates for aquatic leadership positions who have the following instructor certifications at time of hire:

- YMCA Lifeguard Instructor or equivalent
- Instructor in a nationally recognized professional rescuer CPR program
- Instructor in a nationally recognized first-aid program
- Trainer certifications for each of the above (recommended)

Rationale: Instructor- and trainer-level certifications are necessary for properly maintaining high-quality lifeguarding and safety. Not requiring these credentials directly impacts the quality of staffing and safety at Ys.

AL-3 Ensure that aquatic leadership staff have demonstrated experience operating and managing aquatic facilities.

AL-4 Develop an aquatic leadership hierarchy that allows an employee with direct aquatic supervisory responsibility to be on duty at all times the pool is in use.

HP  HIRING PRACTICES FOR LIFEGUARDs

HP-1 Administer a thorough interview to all candidates applying for lifeguarding positions prior to employment. This interview process includes
• a written exam including scenario and rescue information,
• physical testing including swimming and treading water, and
• a water-rescue scenario that includes removal from water and CPR skills

**Rationale:** A testing process is a crucial step in determining the knowledge and ability of new lifeguard hires. This is particularly vital if candidates were not trained by a lifeguard instructor on staff at the facility.

**HP-2** Include in the interview process job verification(s) and at least two personal references.

**Rationale:** Because employers typically will confirm only a candidate’s date of hire, job title, and eligibility for rehiring, obtain references about the candidate’s character from others. These personal references (or character references) are a way to ask an independent party for information about the person that employers will not provide. Have young job applicants provide the names of nonrelatives (e.g., teachers, religious leaders, coaches, Scoutmasters, or neighbors) for whom they have worked.

**HP-3** Have the employee sign all employment paperwork and the job description.

**HP-4** Include in the job description that the new employee is able to:

• Hear noises and distress signals in the aquatic environment, including in the water and anywhere around the zone of responsibility. Candidates must understand that significant background noise exists in all indoor and outdoor aquatic environments. In addition, lifeguard candidates should have a minimum hearing threshold of no more than an average of a 25-decibel loss in both ears over a range of frequencies (500Hz, 1000Hz, 2000Hz, 788 and 3000Hz). Candidates who use hearing aids or other corrective devices for hearing should be able to perform all rescue skills and emergency procedures without interruptions to adjust, retrieve, or install or attach a hearing aid or corrective device.

• Remain alert with no lapses of consciousness.

• Meet strength and lifting requirements.

• Observe all sections of an assigned zone or area of responsibility. Candidates who use corrective eyewear should be able to perform all rescue skills and emergency procedures without interruptions to adjust, clear, or retrieve corrective eyewear.

**Rationale:** Data support the importance of vision and hearing to lifeguarding. In a review of research conducted by the United States Lifeguard Standards Coalition, it is recommended that aquatic facilities establish minimum vision and hearing standards.
DR DOCUMENT RETENTION

DR-1 Keep on file copies of all current staff certifications and trainings required for lifeguarding, including the following:

- Professional rescuer CPR certification—This certification training, which is renewed annually, requires two-person CPR, the use of a bag-valve mask, and child/infant CPR
- Standard first aid certification
- Current YMCA Lifeguard or equivalent lifeguard training certification
- Automated external defibrillation (AED) certification—renewed annually
- Emergency oxygen administration certification—renewed annually
- YMCA POOL certification or equivalent pool operator certification as necessary for aquatic leadership staff and staff performing maintenance at the aquatic facility
- Proof of training that satisfies OSHA requirements for blood-borne pathogens and employee right-to-know program training requirements

**Rationale:** Retaining copies of staff trainings and certification is a best practice among aquatic facilities.

DR-2 Establish a comprehensive and practical record-keeping system and have all information readily available and reviewed annually by the aquatic leader or higher management positions to ensure proper safety and risk management compliance. See Risk Management section RM-12 for more information. Keep documents including, but not limited to, the following:

- Staff orientation and training information
- In-service training records
- Accident/incident reports and applicable rescue reports
- Assessment records
- Equipment maintenance and inspection forms
- Chemical logs and related testing forms
- Structural and electrical inspections
- Local health department inspections and reports

CR CODES AND REGULATIONS

CR-1 Comply with all laws and codes as required by local, state, and federal governments. Keep copies of these codes and permits. Examples include, but are not limited to, the following:

- Licensing requirements
- State and/or local health department regulations for swimming pools
- Operating permits
- Bacteriological reporting
- **Virginia Graeme Baker Act** requirements
- The **Americans with Disabilities Act**
- Occupational Safety and Health Administration (OSHA) regulations
- Local electric, building, and fire codes

CR-2 If local or state regulatory codes for swimming pools do not exist, adopt the regulatory codes of another state or recognized standards such as those from the American National Standards Institute (ANSI) or the Centers for Disease Control and Prevention’s (CDC) Model Aquatic Health Code (MAHC).

**Rationale:** Swimming pool codes provide a framework for maintaining the health, safety, and general well-being of patrons, and Ys are encouraged to maintain the highest standards. Localities and states that lack or have minimal codes may not necessarily be current with what is considered industry standards. In addition, best practices require that a document or set of codes be in use to ensure the safety and well-being of patrons. Ys in states with a minimal regulation are encouraged to actively research and identify an appropriate pool code to follow.

**AO AQUATIC OPERATIONS**

**AO-1** Develop an aquatic staff handbook and make it available to each employee.

**Rationale:** An employee handbook helps employees understand their roles and responsibilities and is considered a business standard across multiple industries and business types.

**AO-2** Develop a facility manual and keep it on site. Have in place specific policies to address safety concerns. Examples include, but are not limited to, the following:

- Drowning or submersion events
- Program-specific emergency procedures, if applicable
- Child abuse prevention and reporting procedures
- Missing person
- Hypoxic training and breath-holding
- Natural disasters and severe weather
- Facility evacuation
- Power failure
- Properly securing and storing equipment after hours or end of season
- Securing of facility at end of season or end of daily operation
- Rental agreements and contracts for rental groups
- Equipment maintenance and operation

**AO-4** Establish daily, ongoing safety inspections to include

- rescue and safety equipment,
- deck and facility equipment,
- noise and ambient air temperature levels, and
- applicable emergency alarm systems.
AO-5  Evaluate each lifeguard zone seasonally for size and effectiveness.

_**Rationale:**_ Ensure each zone gives the lifeguard a clear view of the bottom, middle, and top of the pool. This helps ensure patron safety. Many factors (e.g., the sun, number of swimmers, program needs) can change depending on the season of the year.

AO-6  At a minimum, have an annual independent assessment of the aquatic facility operations.

_**Rationale:**_ Independent assessments provide an unbiased, objective review of the aquatic safety operations and identify areas for improvement, especially for lifeguard operations. Additionally, such assessments help keep facilities accountable to recommendations and regulations. It provides aquatic leaders the opportunity to learn how staff is performing and identify safety and response issues with the facility. It also allows aquatic leaders to ask a professional for help, ideas, or guidance. Refer to Y–USA’s Aquatic Assessment Services fact sheet, found on www.ymcaexchange.org, for further information.

AO-7  Include aquatic safety performance criteria in all YMCA positions (e.g., child care, afterschool), especially those that come in contact with or are exposed to the aquatic facility. Suggested **Model Aquatic Safety Performance Criteria for Non-Aquatic Staff** can be found on www.ymcaexchange.org.
SECTION 2 – TRAINING

The Y is committed to the safety of everyone who uses our aquatic facilities. It is critical that we diligently train Y staff to prevent, recognize, and respond to all aquatic incidents.

**LT LEADERSHIP TRAINING**

**LT-1** Upon hiring aquatic leadership staff, provide an orientation in the following areas by someone with demonstrable knowledge. At a minimum, include the following in the orientation:

- Pool/facility orientation and operation
- Pump room orientation and operation
- Emergency action plan (EAP) review
- OSHA (Occupational Safety and Health Administration) workplace safety
- Child abuse prevention

**LT-2** Have in place a 30/60/90-day training plan for aquatics leadership staff to address any immediate gaps in certifications and knowledge.

**Rationale:** Due to various factors, including the lack of a centralized training program or similar post-high-school-degree track, candidates for full-time aquatic positions may not necessarily possess advanced skills or knowledge in aquatics. In some cases, many of the required minimum credentials are acquired post hire. Establishing a 30/60/90-day training plan is a proactive approach to developing new leadership staff to help them close gaps in necessary skills and knowledge.

**LT-3** Have a professional development training plan for aquatics leadership that takes into account the need for advanced certifications, aquatic management training, technical training, continuing education, conferences, and networking opportunities.

**Rationale:** Obtaining certifications, while critical to professional development, is only the beginning of acquiring knowledge in the aquatics field. Exposure to other aquatic professionals and aquatic-based presentations enhances the knowledge and confidence of the aquatics director. In addition, this exposure creates a valuable network of individuals who can provide resources and support to the Y aquatics director.

**LT-4** During transitions in aquatic leadership, ensure that all aquatic standards are maintained and the aquatic facility is adequately supervised during the transition.

**Rationale:** During transitions in aquatic leadership, a gap in coverage and supervision often occurs. In order to continue providing for the
safety of patrons, Y leadership appoint an individual to ensure that
lifeguard and facility operations are effectively and safely
maintained.

LS  LIFEGUARD STAFF
LS-1  Ensure that lifeguard staff have appropriate training prior to service, with renewal
training at appropriate intervals. Appropriate training includes the following:
  • Professional rescuer CPR certification—This certification training, which is
    renewed annually, requires two-person CPR, the use of a bag-valve mask,
    and child/infant CPR
  • Standard first aid certification—renewed every two years
  • Current YMCA Lifeguard or equivalent lifeguard training certification—
    renewed every two years
  • AED certification—renewed annually
  • Emergency oxygen administration certification—renewed annually
  • YMCA POOL certification or equivalent pool operator certification as
    necessary for staff performing maintenance at the aquatic facility
  • Proof of training that satisfies OSHA requirements for blood-borne
    pathogens and employee right-to-know

Rationale: The practice of annually re-training staff in CPR/AED is based on the
following:
  • Research conducted by the American National Red Cross
    (ACFASF n.d.) indicated the lack of supporting evidence for a
two-year CPR certification.
  • OSHA’s “Best Practices Guide: Fundamentals of a Workplace First
    Aid Program” (2006) encourages a CPR-skills practice session
    every six months and recommends annual recertification in
    CPR/AED skills.
  • A study published in the journal Resuscitation (Andresen 2008)
    noted a correlation between reduced skill retention and lack of
    six-month skill reviews.

LS-2  Develop and implement a standardized response protocol for various
emergencies. Ensure that the facility’s emergency action plan supports this
protocol.

Rationale: Y-owned or -operated aquatic facilities might employ lifeguards
trained by different nationally recognized agencies. For consistency
and quality, having in place a single training protocol equips staff
to deliver a high-quality, collaborative rescue response. For each
facility, establish emergency action plans that clarify a unified and
consistent response system.
Prior to their first shift, thoroughly orient new lifeguards to the environment in which they will be guarding. Include oral, written, and physical components with proper documentation. This includes, but is not limited to, the following:

- Zones and rotations
- Emergency policies and procedures, including emergency action plans
- Location and use of rescue and resuscitation equipment
- Location and use of personal protective equipment
- Facility rules and injury prevention policies
- Child supervision and abuse prevention policy
- OSHA workplace safety practices
- Aquatics department policies and procedures

Have new lifeguards shadow other lifeguards, under the supervision of an experienced staff member, for a minimum of two shifts prior to assigning the new lifeguard a zone of responsibility.

**Rationale:** A job-shadow period allows experienced lifeguards to help new hires become acclimated to their surroundings. It also provides a support structure as the new lifeguard refines scanning and patron interactions.

Conduct a minimum of four hours of in-service training per month for all lifeguard staff. Include these in-service training topics (among others):

- CPR/AED skills
- First-aid skills
- Scanning and patron surveillance
- Emergency response, including emergency action plan drills
- Spinal injury management
- Water rescue skills

**Rationale:** Unused skills deteriorate without practice. Regular in-service training has long been considered an industry standard.

Have lifeguard staff follow a physical conditioning program appropriate to the aquatic facility.

Conduct a minimum of one emergency action plan drill per year in partnership with your local emergency medical services (EMS).

**NONLIFEGUARD AQUATIC STAFF**

Train nonlifeguard aquatic staff to support lifeguards during an emergency. Include in the emergency action plan the scope of their roles and responsibilities.
during an emergency. Following are the recommended certification trainings for all nonlifeguard aquatic staff:

- Professional rescuer CPR
- AED
- Emergency oxygen administration
- First aid
- Applicable technical specialty and safety certifications
- YMCA Aquatic Safety Assistant (YASA) or equivalent

**Rationale:** It requires a coordinated team effort to ensure that an aquatic environment is rescue-ready. Train all staff working in these environments to support one another according to the facility’s emergency action plan. Applicable specialty and safety certifications refer to the safety certification requirement for various programs. Depending on the program, it may be unnecessary to require both the applicable specialty and safety certification and YASA or equivalent. Evaluate the standard practices for the programs offered at each facility when determining safety training requirements for nonlifeguard aquatic staff.

**NL-2** Thoroughly orient new aquatic staff to the environment where they will be working. Document these orientations, which can be both oral and written. Include the following:

- A plan to close training gaps (see NL-1)
- Department/aquatic facility orientation
- Uniform requirements
- Meeting/training requirements
- Emergency policies and procedures, including emergency action plans
- Deck orientation
- Program supervision and safety policies
- OSHA workplace safety practices
- Child abuse recognition and prevention

**NL-3** Practice emergency action plan **response readiness** a minimum of quarterly through in-service skill practice.
DS DESIGNATED NONAQUATIC SUPPORT STAFF

DS-1 Have designated nonaquatic support staff trained to support lifeguards in an emergency. Reflect the scope of their emergency roles and responsibilities in the emergency action plan. Following are the recommended certification trainings for designated nonaquatic support staff:

- Professional rescuer CPR
- AED
- Emergency oxygen administration
- First aid
- YMCA Aquatic Safety Assistant (YASA) or equivalent

**Rationale:** Designating dedicated nonaquatic support staff, such as a manager on duty, is necessary to ensure that an adequate response is available at all times to manage an emergency. This can often be a challenge during nonpeak hours when staff volume is reduced. When identifying and selecting individuals as designated nonaquatic support staff, consider the swimming ability of the staff member. Do not designate staff members who are unable to complete the basic swimming skills found in the YMCA Aquatic Safety Assistant or equivalent program. This is a good practice also because it allows for the cross-training in specific safety techniques and skills for positions, such as camp staff, who will have regular access to the aquatic facility.

DS-2 Thoroughly orient designated nonaquatic support staff to the aquatic facility. Document these orientations, which can be both oral and written. Include the following:

- Department/aquatic facility orientation
- Meeting/training requirements
- Emergency policies and procedures, including emergency action plans
- Deck orientation
- Safety policies
- OSHA workplace safety practices
- Child abuse recognition and prevention

DS-3 Practice response readiness to the emergency action plan at least quarterly through in-service skill practice. Increase this frequency as necessary depending on the requirements of the position and involvement with the aquatic department.
SECTION 3 – SUPERVISION

Lifeguards and aquatic leaders are essential to the safety of our aquatic facilities and help ensure that our patrons enjoy a safe, fun aquatic experience. Proper and effective lifeguard supervision, aquatic leadership, and supervision from branch management provides our patrons, community, and the Y a safer aquatic environment.

**MS  MINIMUM SUPERVISION**

**MS-1** Establish an aquatic leadership position for each branch that meets the training requirements found in section 2, AL-1.

**MS-2** Ensure that lifeguards employed by your Y provide active supervision during all times the pool is in use. When multiple pools are on site, provide a lifeguard for each pool in use.

**MS-3** Make it a priority to assign at least two lifeguards to a pool at all times the pool is in use.

**Rationale:** The skills and training provided to lifeguards through nationally recognized training agencies emphasize a team approach to care. Staffing a minimum of two lifeguards at all times allows them to apply their rescue skills as they were trained to do. Staffing two lifeguards at all times also allows for patron interactions without compromising patron surveillance. If such staffing is not financially feasible, evaluate the bather load, level of risk, and available support structure when determining when a single lifeguard on duty is used.

**MS-4** Ensure that aquatic leadership or a designated nonaquatic support staff member is present at all times to support lifeguards in an emergency. See Administration Section AL and Training Sections LT and DS for more information.

**MS-5** Adjust lifeguard-to-patron ratios by assessing:

- Compliance with applicable state and local codes (make sure these codes are met or exceeded)
- Size and shape of the pool
- Available equipment
- Number and ages of patrons in the pool
- Skill level of patrons
- Skill level of lifeguards
- Type of program
- Environmental factors such as sun glare, rain, wind, and shadows from buildings or trees that make viewing areas of the water or bottom difficult
- Availability and qualifications of other support staff
**Rationale:** There is no scientific or other demonstrated evidence that a particular ratio of lifeguards to patrons positively affects aquatic safety. In some cases, the “more is better” approach to lifeguard staffing may produce a false sense of security at best, and at worst result in lifeguards being unsure of the extent of their zones. The recommended approach is to consider a number of factors when determining lifeguard-to-patron ratios. These factors take into account environment, length of active supervision, and visual and audible stimuli.

**MS-6** Ensure that lifeguards are rescue ready with the following equipment and systems available and accessible at all times:

- A uniform that readily identifies them as a member of the lifeguard staff, consistent with current Y-USA branding guidelines, with the word “lifeguard” clearly visible on the uniform
- One rescue tube per lifeguard, worn at all times
- One summoning device per lifeguard, worn at all times
- A rescue pack—one per lifeguard—containing personal protective equipment (PPE), worn at all times
- Emergency call system to notify 911 or other YMCA staff
- Backboard with a minimum of three body straps and a head restraint system
- Automated external defibrillator (AED)
- Emergency oxygen delivery system
- Manual suction device
- First-aid kit stocked to handle various major and minor emergencies for a minimum of 10 people

**MS-7** Have the following equipment available in quantities appropriate for the facility:

- Shepherd’s crook
- Ring buoy
- Hat
- Sunglasses
- Umbrella
- Sunscreen
- Filled water bottles
- Weather radio
- Lightning detector

**MS-8** When positioning a lifeguard station, consider the following:

- Lifeguards require the ability to reach all points in an assigned zone within 10 seconds.
- Overlap all zones with other zones.
- Require lifeguards to scan no more than 180 degrees to cover their zone.
- Ensure sight lines are clear so the lifeguard can appropriately scan the assigned zone.
- Ensure proximity to the water's edge to prevent blind spots directly in front of the stand.
- Account for the changing effects of glare, shadows, and lighting.
- Be prepared for different weather conditions.
- Ensure appropriate chair height to water depth.

MS-9 Have in place a **zone validation plan** to ensure that all zones are appropriate for the facility and allow for appropriate response times.

### SS SUPERVISION STRATEGIES

**SS-1** Rotate lifeguards every 20 to 30 minutes. Provide lifeguards a minimum of one 10-minute break from lifeguarding every hour. As the temperature and humidity rise, increase the frequency of lifeguard rotations and breaks regardless of whether or not the aquatic facility is indoor or outdoor.

**Rationale:** In “Lifeguard Vigilance Bibliographic Study,” a report published in 2001 by the Applied Anthropology Institute in France, several studies are referenced with implications for lifeguarding. One study referenced the Mackworth Clock Test, commissioned in 1950 by the British Royal Navy, which found that optimal vigilance cannot be maintained for more than 30 minutes. A subsequent study published in 1970 (Mackworth) showed that breaks for as little as 10 minutes can return vigilance to the same level as at the start of the task.

Another study, referenced by Pigeau (1995), examined vigilance among air traffic controllers and found that vigilance over time is negatively affected during periods of low activity. The study’s author concluded that short activity cycles with frequent breaks should be used by lifeguards during periods of low activity.

**SS-2** Lifeguards performing active surveillance require rescue readiness as described below:

- Rescue tube across lap or in hand
- Strap over shoulder and diagonally across chest
- Excess strap secured in hand
- Posture erect and forward
- Scanning from the bottom, middle, and top of the water throughout the assigned zone and including the deck and water features in the assigned zone

**SS-3** Have management staff conduct **lifeguard quick checks** a minimum of once daily.
SS-4  Provide a minimum of one lifeguard chair for each lifeguard on active supervision. The minimum height of the seat of the chair from the surface of the pool deck is five feet.

Rationale: Positioning the lifeguard at a height any lower than five feet above the deck increases the risk that a victim would be obscured from the lifeguard by swimmers, the pool edge, or other features. This recommendation does not preclude the use of standing, roving, or in-water lifeguard positions, or the use of scanning techniques that require a periodic change in body position.

DPS  DROWNING PREVENTION STRATEGIES

DPS-1  Require a swim test of all youth and adults who give a lifeguard concern before allowing the patrons to enter water that is deeper than their armpits. Use a system to identify or mark patrons according to their swimming ability, including nonswimmers. Include appropriate restrictions on pool use.

Rationale: Swim testing identifies individuals who have poor swimming skills so that Ys can implement strategies, such as pool-usage restrictions, that provide additional safety measures in drowning prevention. Currently, there is no consensus on the definition of a “nonswimmer.” YMCAs are encouraged to define what constitutes poor or underdeveloped swimming ability until a standard description is available.

DPS-2  Have all participants in a special or outside group, regardless of their membership status, participate in an orientation that includes an explanation of rules, pool depths, restricted areas, buddy checks, swim tests, and how swimmers will be marked.

DPS-3  Require reach supervision for younger children classified as nonswimmers by a swim test.

DPS-4  Require nonswimmers to wear a U.S. Coast Guard–approved type II personal flotation device in addition to requiring reach supervision.

DPS-5  As much as possible, identify and incorporate aquatic safety technology, such as surveillance systems or alarms, as part of your aquatic safety implementation strategies and as a supplement to the supervision provided by lifeguard staff.

Rationale: Although these technology systems DO NOT replace the need for continuous lifeguard surveillance, they can assist a lifeguard in surveillance duties. Appropriate protocols, combined with aquatic safety technology, may save valuable time during an emergency. Refer to Y–USA’s Aquatic Safety Technology fact sheet, found on www.ymcaexchange.org, for further information.
SECTION 4 – FACILITIES AND EQUIPMENT

Aquatic facilities that are properly operated and maintained, follow recognized industry standards, and comply with all local, state, and federal regulations help ensure the health and safety of our patrons at the highest level possible.

CM COMPLIANCE

CM-1 Assess material safety data sheets (MSDS) for possible updates each time chemicals are delivered. Post MSDS in the room where chemicals are stored and used, and compile the MSDS in a clearly labeled binder readily available to employees.

CM-2 Clearly identify and properly store chemicals. Post a warning sign on the outside of the door where chemicals are stored that says, “Chemical Storage – Authorized Personnel Only,” with an appropriately marked Occupational Safety and Health Administration (OSHA) compliant placard visibly placed.

CM-3 Follow chemical handling, storage, and disposal procedures as required by the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA).

CM-4 For all employees required to handle chemicals, provide them with personal protective equipment (PPE) (e.g., gloves, eye protection, face protection, inhalation protection, and apron to protect clothes) and train them in the use of PPE according to OSHA standards.

CM-5 Establish a fecal contamination policy that identifies response procedures, documentation, and prevention procedures. At a minimum, follow the Centers for Disease Control and Prevention (CDC) recommendations for preventing contamination incidents and recreational water illness (RWI). If state or local codes exceed these requirements, follow the more stringent standard.

CM-6 Have on staff a pool operator certified in YMCA Pool Operator on Location (POOL) or equivalent to monitor and maintain the disinfection, filtration, and mechanical operation of each aquatic facility and to ensure that local and state health department standards are being met. Keep the proof of this certification on site and readily available.

CM-7 Have available a copy of the YMCA Pool Operator on Location manual or equivalent for use as a reference tool.

CM-8 Have on file and readily available for reference all manufacturer data sheets for mechanical pool and spa equipment.
CM-9 Establish and follow association- or branch-specific standards for pool operation, in compliance with existing federal, state, or local codes.

DE DESIGN AND EQUIPMENT

DE-1 For all outdoor aquatic facilities, have perimeter fencing at least six feet high (eight feet recommended). Ensure that fencing is in good condition and inspected regularly for protrusions, sharp edges, or openings.

DE-2 Whenever facility equipment such as piers, diving boards, ladders, or rafts are present, ensure that they are in proper repair and safe working condition. Include these items in the facility safety check and the preventive maintenance schedule.

DE-3 Cover decks and docks with non-slip coating. Ensure that at least one side of the deck or dock is wide enough to allow access for extricating a victim. For new construction, build decks and docks with adequate width for extraction on all sides.

DE-4 During recreational or open swim times, place a floating safety rope to signify depth changes from shallow play areas, from shallow to deep water, or any sudden changes in water depth. Provide a safety line that is sturdy enough to support an adult with his or her head out of the water.

**Rationale:** A visual marker provides nonswimmers a visible boundary they should not cross. It may be necessary for Ys to place multiple boundary lines, especially in zero-depth pools to indicate the transition from 2.5-feet to deeper water.

DE-5 Ensure that floor drains and suction outlets are compliant with the Virginia Graeme Baker Act of 2007 and can be seen from the surface at all times. Drains require a visual inspection at each shift change, which includes inspecting for broken grates, missing hardware, and other defects. Implement protocols to ensure any potential issues are reported to aquatic leadership.

DE-6 For seasonal aquatic facilities, when the facility has been closed for the season, post a sign stating the facility is closed and no lifeguards are on duty.

DE-7 Permanently mount rules, regulations, warning signs, and procedures for use of the aquatic facility, locker rooms, slides, spray features, whirlpools, and diving areas in the pool, whirlpool, and locker room areas.

DE-8 Write rules in clear and (as much as possible) positive language; have lifeguards review the rules with patrons and enforce the rules consistently.

DE-9 Regularly clean and sanitize decks and other wet areas with a disinfecting solution that is designed for this purpose and does not interfere with water chemistry.

DE-10 Clean and sanitize slides and play elements with a chlorine solution only.
DE-11 Keep ventilation systems in operation 24 hours per day. Maintain a slightly negative pressure in natatoriums, spa and whirlpool areas, and locker rooms. Monitor cubic feet per minute (CFM) to ensure adequate circulation according to the design of the ventilation system.

DE-12 Illuminate pools so there is a minimum 30-foot candles at the water’s surface when underwater lighting is on. Without underwater lighting, a minimum illumination of 50-foot candles is recommended.

DE-13 Illuminate outdoor pools by underwater lighting providing a minimum of 60-foot candles of illumination measured at the surface.

DE-14 Equip pools and spas with an emergency alarm system to summon help to the pool or spa area. Multiple alarm activation sites or handheld wireless panic buttons can provide for immediate access to the alarm and faster response time.

DE-15 Conduct and document tests of the emergency alarm systems twice weekly.

**PM PREVENTIVE MAINTENANCE AND REPAIR**

PM-1 Regularly inspect all aquatics facilities and equipment for safety by the director of the program (or a designee) and judge suitability for use. Determine the frequency of inspections based on

- manufacturers’ recommendations,
- frequency of use, and
- level of inherent risk involved.

PM-2 Develop a written preventive maintenance and inspection schedule according to manufacturers’ recommendations, keeping inspections and maintenance records on file.

PM-3 Routinely maintain aquatic facility mechanical systems in accordance with the manufacturers’ equipment manuals. Keep a record of maintenance on file.

PM-4 Conduct an electrical inspection every three to five years to identify potential shock hazards to employees and patrons.

PM-5 Have an emergency lighting system in the pool and whirlpool areas, which is tested weekly by facility staff.

PM-6 Maintain the emergency lighting system; the regular pool lighting; and the mechanical, ventilating, and plumbing systems according to the manufacturers’ specifications, keep them in good working condition at all times, and conduct a documented inspection of them at regular intervals.

PM-7 Have all roof and ceiling components inspected by a licensed structural engineer at least once every five years.
PM-8 Have all suspended ceilings and related components inspected annually by a licensed structural engineer. Keep on file a schedule of inspections and written reports.

**Rationale:** Suspended ceilings are at a higher risk of failure due to corrosion. If your Y has suspended ceilings, develop a strategy to remove them.

PM-9 Drain and fill pools annually. During this time, secure the physical pool structure from unauthorized and unsupervised entry and conduct appropriate inspections.

**Rationale:** Annual draining and filling allows for a detailed inspection of the pool surfaces for physical defects. This practice also helps address certain concerns with water quality. Ys using pool chemicals that increase total dissolved solids (TDS) or chlorine-stabilizing compounds may experience problems with water quality that can affect the safety of pool users. If your Y uses these compounds, schedule an annual draining to reduce or eliminate potentially harmful effects.

**NCR NEW CONSTRUCTION AND RENOVATIONS**

NCR-1 Perform construction of new facilities and renovations of existing facilities in accordance with these guidelines and all local, state, and federal codes regarding swimming pool construction.

NCR-2 Have all plans for construction or renovation of aquatic facilities reviewed by aquatics professional(s) experienced in the design and planning of aquatic facilities, programming, and safety. Y-USA resources and staff are available to assist in this process, including specialists in property development, aquatics safety and risk, and aquatic programs.

**Rationale:** The construction and renovation of commercial aquatic facilities requires experience and knowledge that may not be held by many pool builders and designers. In addition, architects who are inexperienced in commercial aquatic facilities often emphasize aesthetic beauty, which is frequently at odds with aquatic safety and programming. Working with an aquatics professional experienced in the design and planning of aquatic facilities allows the facility to properly incorporate safety elements while maintaining aesthetics. This also provides another point of view to ensure that the mechanical, ventilation, and lighting systems are appropriate for the facility.
SECTION 5 – MINIMIZING RISK

Strong risk management and safety practices help protect our patrons and community, prevent injuries, and reduce the frequency and severity of incidents.

RM-1 Have a comprehensive safety and policy overview conducted annually by Y aquatic management. Conduct the overview in conjunction with the executive director, associate executive director, or a corporate management representative well versed in aquatic safety to identify, analyze, and minimize risk that can result from the aquatic facility, its usage, and operations. Perform this overview

- for Y programs and activities;
- by outside organizations using Y pools; and
- for offsite aquatic facilities used for Y programs and activities.

RM-2 Anticipate and evaluate loss exposures, hazards, and threats on a regular basis by Y aquatics and association management to determine the likelihood of occurrence and assess the procedures in place to mitigate a loss.

RM-3 Conduct periodic risk assessments by aquatic management to ensure compliance and effectiveness during the year, including

- Y-USA’s Aquatic Safety Guidelines;
- supervision;
- training; and
- facilities and equipment.

RM-4 Monitor, evaluate, and modify procedures by Y aquatics management on an ongoing basis to ensure safety and loss prevention.

RM-5 Ensure that adult and child swimmers sign a waiver of liability as part of their membership agreement, including guest-pass and day-pass users. Ensure that minors have the signature of a legal guardian.

RM-6 Have outside groups renting the YMCA pool

- sign the YMCA’s facility-use agreement, which also should be signed by YMCA management; and
- provide a certificate of insurance and name the YMCA as additionally insured on the group’s insurance with the proper endorsement attached.

RM-7 Use a facility use agreement, which requires a signature, for small events.

RM-8 When managing non-YMCA-owned facilities,

- ensure the association CEO/CFO is involved in the contract process.
• put in place a written agreement outlining the parties’ responsibilities and protections for the Y. Have this reviewed by the Y’s legal counsel.
• review insurance requirements and obligations with the Y’s management and insurance representatives.
• ensure offsite aquatic facilities used by your YMCA for programming—such as swim lessons, water aerobics, or any other type of instruction—comply with all of your Y’s safety standards and procedures.
• do not “rent” or dispatch lifeguards to private homeowners for parties or any lifeguarding-related responsibilities. Limit all offsite lifeguarding activities to YMCA programs only.

RM-9 When using contractors and pool chemical suppliers or vendors

• have signed agreements in place that indemnify, defend, and hold harmless the YMCA.
• ensure the YMCA is named as “additionally insured” by endorsement on the contractor’s, supplier’s, or vendor’s insurance.
• obtain a proper certificate of insurance and “additionally insured” endorsement from the contractor, supplier, or vendor.

RM-10 Have in place a written risk-management plan incorporating all recommendations found in the Y-USA Aquatic Safety Guidelines.

RM-11 Ensure that aquatic leadership review aquatic facility maintenance, inspection, and repair logs on a regular basis to verify accuracy and that the records are maintained for retrieval when needed.

RM-12 Have accident/incident reports reviewed weekly by aquatics leadership to

• determine if corrective action is needed;
• identify training and supervision issues;
• ensure accurate reporting and documentation of incidents and outcomes;
• evaluate effectiveness of emergency procedures; and
• discuss with association management on a monthly/quarterly basis as part of your Y’s overall risk management strategies.

RM-13 Retain all YMCA aquatic legal documents and forms. The length of retention for each document varies. Each association drafts a policy to ensure the correct documents are not being destroyed. See the guidelines and recommendations on this matter available from Y-USA at www.ymcaexchange.org. Have your Y’s records retention policy reviewed by your Y’s local attorney.
SECTION 6 – SPECIFIC ENVIRONMENTS AND ACTIVITIES

Some environments and activities pose unique challenges that require a specific approach to aquatic safety. This section includes additional guidelines for special environments commonly found in a YMCA and is intended to be used in conjunction with Sections 1 through 5.

CSD COMPETITIVE SWIMMING AND DIVING

CSD-1 In the interest of maintaining the highest level of safety, have all coaches who work with competitive swimmers hold current certifications in the following areas:

- CPR
- First aid
- American Red Cross’s Safety Training for Swim Coaches or current YMCA Lifeguard (or equivalent lifeguard training certification) with proof of successful completion of the online Safety Training for Swim Coaches written test available on USA Swimming’s website, www.usaswimming.org
- Principles of YMCA Competitive Swimming and Diving
- Child abuse prevention

CSD-2 Ensure that all competitive swimming and/or diving practices and competitions are actively supervised at all times by a lifeguard whose sole responsibility is to fulfill lifeguard duties. Do not have a coach serve simultaneously as a coach and lifeguard.

Rationale: The duties of coach and lifeguard are task specific and require dedicated focus to perform effectively and safely.

CSD-3 Allow diving instruction from the side of the pool, such as long shallow dives or standing dives, only in water that is at least nine feet deep. Competitive swimmers proficient in such dives can then perform racing starts during swim practice or competition only in water that is at least five feet deep at the starting end of the pool. If the water is less than five feet deep, have swimmers in the water at the start of the race, performing a push start from the side of the pool.

Rationale: As of 2010, all major instructional agencies (Y-USA, the American Red Cross, USA Swimming, and USA Diving) require basic diving instruction to occur in a minimum of nine feet of water.

CSD-4 Use starting blocks only under the supervision of the coaching or instructional staff. When not in use, always cover or restrict starting blocks to prevent unauthorized and untrained access.

Rationale: In Diving Injuries: Research Findings and Recommendations for Reducing Catastrophic Injuries (Gabrielson 2001), the editors
reviewed 32 cases of spinal injuries associated with starting blocks. Of these incidents, all 32 cases were in water depths of four feet or less. Of these cases, 28 involved members of a swim team, with four cases involving recreational swimmers “trying out the starting blocks because they had seen others do it.” The authors conclude that starting blocks should be placed in water depths of at least five feet.

CSD-5 If your Y has competitive swimming and diving programs, follow all additional safety guidelines as indicated by the YMCA Swimming and Diving Advisory Committee.

**SP SPAS AND WHIRLPOOLS**

**SP-1** Ensure that all spas and whirlpools are located where they are under supervision by lifeguard staff.

**SP-2** Post signage at all spas and whirlpools informing users of the potential risks of use, including the following restrictions on using the spa or whirlpool:

- Minimum age
- Time limit
- Individuals with certain medical conditions

**SP-3** Ensure that all spas and whirlpools are equipped with timer switches that restrict jet action to 10 minutes. Position these switches where users must exit the water to reactivate the jet action.

**Rationale:** Using spas and whirlpools increases the risk of heat-related emergencies and complications to existing medical conditions due to heat exposure. Limiting the time users are in the spa or whirlpool reduces the risk of such emergencies. Review the Y-USA Medical Advisory Committee statement on saunas, steam rooms, and whirlpools.

**SP-4** Ensure that spa and whirlpool temperatures do not exceed 102°F.

**Rationale:** Using spas and whirlpools increases the risk of heat-related emergencies and complications to existing medical conditions due to exposure to high temperatures. Review the Y-USA Medical Advisory Committee statement on saunas, steam rooms, and whirlpools for more information.

**SP-5** Equip all spas and whirlpools with the following:

- Emergency cut-off switch located in the spa area
- Emergency vacuum release system
- Two main drains that are compliant with the Virginia Graeme Baker Act

**SP-6** Drain and refill all spas and whirlpools weekly.
WF  WATERFRONT FACILITIES

WF-1  Comply with local, state, and federal health and safety codes and ordinances in the operation of waterfront facilities at all times.

WF-2  Ensure that all waterfront beaches have the following environment-specific equipment readily available in a quantity appropriate to the geographic size of the facility and its attendance. (This is in addition to the required equipment outlined in Section 3 – Supervision.) Conduct documented inspections daily of all equipment, including the following:

  - Rescue board (paddleboard)
  - Mask, fins, and snorkel
  - Communication equipment
  - Legible and adequately secured rules and warning signs
  - Buoys and safety floats that are properly secured, have no sharp edges, and have legible markings to indicate the swim area
  - Tag board with at least one tag per swimmer

WF-3  If permitted by the local or state regulatory ordinances, waterfronts are advised to have a motorized safety boat available.

WF-4  Whenever equipment such as docks, diving boards, ladders, rafts, and similar structures are provided, ensure they are in proper repair and safe working condition.

WF-6  Conduct and document daily inspections of waterfront beaches for any unusual hazards, and mitigate any hazards prior to use.

WF-7  Each day, perform and document inspections of water and bottom conditions. Include accuracy of depth markers; debris on the bottom; holes and sandbars; currents; tides; wave size, direction, and type; thermocline; and weather conditions.

WF-8  Have lifeguards who have additional training in waterfront-specific skills by a nationally recognized agency.

WF-9  For all Y-managed waterfronts with Y-employed lifeguards, provide additional in-service training specific to the waterfront environment for those lifeguards.

WF-10  Control access to all waterfront-related structures and equipment, which includes securing such structures and equipment after hours.

WF-11  Clearly divide waterfronts into separate areas for different activities, such as boating and swimming.

WF-12  Require personal floatation devices during all boating-related activities.
WF-13 Implement the use of buddy boards/tag boards to help lifeguards and safety assistants quickly account for all participants in swimming and boating activities.

WF-14 Ys owning or managing waterfronts are encouraged to follow the American Camp Association’s (ACA) guidelines (Visit ACA’s website, www.acacamps.org, for information on how to obtain a copy of their guidelines). In the event of a conflict between these guidelines, follow the more stringent guideline.

WF-15 Ys owning or managing open water and surf environments are encouraged to follow all guidelines and standards as indicated by the United States Lifesaving Association (USLA).

PS WATER SLIDES AND PLAY STRUCTURES

PS-1 Position a slide attendant/dispatcher at the entry of the slide. Position a lifeguard at or in the catch pool or run-out of the slide.

PS-2 Enforce the manufacturers’ height requirements for users of slides and develop minimum swimming criteria for their use.

PS-3 Follow all manufacturers’ recommendations for all play equipment installed at the aquatic facility, including but not limited to,

- removable inflatable play structures,
- permanently fixed play structures, and
- temporary or removable play structures.

PS-4 Evaluate hazards associated with existing and new play structures, and staff the pools accordingly. Develop policies regarding the use of personal flotation devices and minimum swimming ability requirements per play structure.

CS SUMMER AND SPECIALTY CAMPS

CS-1 In order to assist lifeguards in an emergency involving camp participants, establish camp counselors as designated nonaquatic support staff and train them as found in Section 2 – Training, DS-1 to DS-3.

CS-2 Ensure that camp counselors receive additional training for the following:

- Specific supervision responsibilities for the aquatic facility
- Camp counselor roles in swim testing procedures
- Implementation and enforcement of the buddy system
- Supervision of children who are not actively swimming
- Camp-specific aquatic safety policies
- Aquatic safety policies and procedures for non-Y-owned aquatic facilities

CS-3 For camp field trips, when using an aquatic facility that is not owner by your Y, establish minimum criteria for its use and tour the facility prior to use for evaluation against the criteria.
When using a non-YMCA-owned aquatic facility for camp field trips, ensure that Y counselors receive training prior to arrival at the venue in the following:

- Additional supervision responsibilities specific to the venue
- Emergency procedures in the event of an injury or a submersion incident
- Procedures in the event of a missing camper
WORKS CITED


DEFINITIONS

30/60/90-day training plan – A plan that outlines the continued development of a staff member along a predetermined period of time, such as 30 days, 60 days, and 90 days.

active supervision – Lifeguards’ state when they are fully involved and engaged, scanning, alert, and ready to respond. They are in full control and constantly aware of swimmers’ presence and activity on and below the water’s surface, on the pool bottom, and on the pool deck in the assigned area of responsibility.

Americans with Disabilities Act (ADA) – A wide-ranging civil-rights law enacted by the U.S. Congress in 1990 and amended in January 2009. The ADA prohibits, under certain circumstances, discrimination based on disability and prescribes certain requirements for facilities.

aquatic leadership – An individual(s), employed by a Y, with aquatic supervisory responsibilities as a primary job function.

Centers for Disease Control and Prevention (CDC) – The CDC is a U.S. federal agency under the Department of Health and Human Services based in Atlanta, Georgia. It works to protect public health and safety by providing information to enhance health-related decisions and promoting health through partnerships with state health departments and other organizations. The CDC focuses national attention on developing and applying disease prevention and control (especially infectious diseases), environmental health, occupational safety and health, health promotion, injury prevention, and education activities designed to improve the health of the people of the United States.

emergency action plan (EAP) – Action steps required to be performed by staff in the event of an emergency. Communication protocols and cross-departmental procedures are defined in the EAP.

employee right-to-know program – A Hazard Communication Education Program required by the Occupational Safety and Health Administration (OSHA) for all facilities using hazardous chemicals. This program is designed to inform employees of the hazards of the chemicals they work with and how to take appropriate precautions. Failure to have a written HAZCOM program is the workplace violation most often cited by OSHA. Training is required prior to the first day of work for an employee; annual refresher training is also required.

Environmental Protection Agency (EPA) – A U.S. federal agency charged with protecting human health and the environment, by writing and enforcing regulations based on laws passed by Congress. The agency conducts environmental assessment, research, and education. It has the primary responsibility for setting and enforcing national standards under a variety of environmental laws, in consultation with state, tribal, and local governments.

foot candles – Illumination measurement determined by a light meter.

in-service training – Training focused on the review and improvement of skills and knowledge as well as introducing new concepts. An in-service training can also be tailored toward facility-specific skill development.
lifeguard duties – Any responsibilities and actions involving patron surveillance; emergency response; or the use of water-rescue, CPR, or first-aid skills.

lifeguard quick checks – Quick assessments and observation of lifeguards by nonlifeguard staff, nonaquatic staff, and patrons to ensure that lifeguards are rescue ready and the aquatic environment is safe.

manufacturer equipment manuals – Original documentation, including updates, supplied by the equipment manufacturer that includes installation and operation instructions, routine and preventive maintenance instructions, and parts lists for repairs.

material safety data sheets (MSDS) – Forms that provide data on the properties of a particular substance or chemical. Important components of product stewardship and workplace safety, MSDS provide workers and emergency personnel with procedures for handling or working with a substance in a safe manner. These sheets include information such as physical data (e.g., melting point, boiling point, flash point), toxicity, health effects, reactivity, storage, disposal, protective equipment, spill-handling procedures, and appropriate first-aid measures. MSDS formats can vary from source to source within a country depending on national requirements.

Model Aquatic Safety Performance Criteria – A set of criteria, developed by Y-USA, which can be added to job descriptions of nonaquatic staff employed by a YMCA.

nonaquatic support staff – Staff, such as front desk or program staff, who are tasked in a facility’s emergency action plan (EAP) to support aquatic staff in the event of an emergency.

orientation – A detailed communication of all procedures, policies, and practices designed to prepare the recipient for duty.

OSHA (Occupational Safety and Health Administration) – The U.S. federal agency dedicated to preventing work-related injuries, illnesses, and occupational fatalities by issuing and enforcing standards for workplace safety and health.

personal protective equipment (PPE) – Devices and clothing designed to be worn or used for the protection or safety of an individual while in potentially hazardous areas or performing potentially hazardous operations.

pool operator – An appropriately trained staff member who understands the proper management of water and facility operation and who is responsible for water quality control; system component maintenance; and compliance with statutes, administrative codes, regulations, and commonly accepted practices.

reach supervision – Type of oversight where a parent or legal guardian is within arm’s reach of a child whenever using an aquatic facility.

records retention policy – Internal policy that prescribes the length of time a record must be kept on file. It should also include a document retention policy so that no documents are destroyed in the event of litigation.
**recreational water illnesses (RWI)** – Diseases caused by pathogens spread by swallowing, breathing in mists or aerosols of, or having contact with contaminated water in swimming pools, hot tubs, waterparks, water play areas, interactive fountains, lakes, rivers, or oceans. An RWI can involve a wide variety of infections, including gastrointestinal, skin, ear, respiratory, eye, neurologic, and wound infections.

**rescue ready** – The state of a lifeguard who is stationed in a lifeguard chair or on the deck; carries a rescue tube or buoy, personal protective equipment (PPE), and a summoning device; is readily identifiable as a lifeguard; and is properly positioned for swimmer supervision, rescues, and other emergency care.

**rescue reports** – Documentation of rescues or incidents that involve a lifeguard assisting a patron in the water.

**response readiness** – Indicates a level of physical, mental, and environment readiness to respond to an emergency.

**rotation** – The movement of a lifeguard from one lifeguard station to another during a set time schedule.

**scanning** – A system of visual observation in which lifeguards perform systematic visual sweeps of the facility, its patrons, and their activity.

**special or outside group** – A group of individuals using a Y for a special event, recreational swimming, instructional programming, or other contracted service. This may include YMCA programs, such as preschool, camp, and afterschool care.

**summoning device** – A device used to summon secondary response. Commonly a whistle, this device may also be a wall alarm that can be activated by pressing a button or a personal wireless device worn by lifeguards that is activated when they enter the water.

**swim test** – A swimming ability test that determines an individual’s swimming proficiency.

**thermocline** – A thin but distinct layer in a large body of fluid (such as an ocean or lake) or air (such as an atmosphere), in which temperature changes more rapidly with depth than it does in the layers above or below.

**Virginia Graeme Baker Act** – A U.S. law named for a child who died in June 2002 when the suction from a spa drain entrapped her under the water. This federal requirement for public pools preempts state or local law. It reads, in part: “All pool/spa drain covers manufactured, distributed, or entered into commerce on or after Dec. 19, 2008, must meet ASME/ANSI A112.19.8–2007. All public pools and spas must be retrofitted with covers that meet the ASME/ANSI A112.19.8–2007 standard. All public pools and spas that have a single drain other than an unblockable drain must employ one or more additional options.” (Sec. 1404: Top Priority for Public Pool and Spa Owners/Operators)

**zone** – Assigned area of coverage in which a lifeguard is responsible for scanning and supervising.
zone validation plan – A process that determines lifeguard positions based on number of swimmers (i.e., bather load), type of activity, water depth, blind spots, glares, and any other factors that may affect lifeguard placement.