

CHARACTERISTICS OF A PROFESSIONAL LIFEGUARD

To fulfill the responsibilities of a professional lifeguard, you must be mentally, physically and emotionally prepared at all times to do your job (Figure 1-2). As a professional lifeguard you must be:

Figure 1-2



Lifeguards must be mentally, physically and emotionally prepared to carry out their duties.

- **Knowledgeable and skilled.** Have the appropriate knowledge and skills to help prevent and respond to emergencies. Successful completion of this Lifeguarding course is your initial training. You must maintain your knowledge and skills through annual or preseason orientation and training, and through regular, frequent in-service training.
- **Reliable.** Arrive at work on time, accept assignments willingly, be committed to your work and respond to all incidents quickly and effectively.
- **Mature.** Be a leader but also be a good team member, act responsibly, take initiative and obey all facility rules, leading others by example.
- **Courteous and consistent.** Be polite and enforce the rules firmly and equally for everyone (Figure 1-3).
- **Positive.** Show a positive attitude in all job activities.
- **Professional.** Look professional and be prepared to respond appropriately to any situation by:
 - Wearing the lifeguard uniform only when on duty.

Figure 1-3



Lifeguards should be courteous and consistent with patrons when enforcing rules.

- Sitting or standing upright at the lifeguarding station.
- Being well groomed.
- Keeping rescue equipment positioned for immediate use when on duty.
- Keeping your eyes focused on your assigned zone of responsibility at all times.
- Keeping interactions with others brief and not letting them interrupt patron surveillance.
- Transferring and handling equipment carefully.
- Observing all facility rules, regulations and policies.
- Eating only when on break or off surveillance duty.

■ **Healthy and fit.** To stay in good physical condition, a professional lifeguard must:

- **Exercise.** An exercise program should include swimming and water exercises that focus on building endurance and developing strength (Figure 1-4). Regular exercise helps you to stay alert, cope with stress and fatigue and perform strenuous rescues.
- **Eat and hydrate properly.** Good nutrition and a balanced diet help to provide the energy needed to stay alert and active. Drink plenty of water to prevent dehydration.
- **Rest adequately.** Proper rest and sleep during off-duty hours are essential for staying alert while on duty.
- **Protect yourself from sun exposure.**

Overexposure to the sun's ultraviolet (UV) rays

can cause many problems, such as fatigue, sunburn, skin cancer, dehydration, heat exhaustion and heat stroke. To prevent these problems:

- Use a sunscreen with a sun protection factor (SPF) of at least 15, re-applying at regular intervals.
- Use an umbrella or shade structure for sun protection and to help keep cool.
- Wear a shirt and hat with a brim that shades your face, ears and the back of your neck and use polarized sunglasses with UVA/UVB protection.
- Drink plenty of water.
- Take breaks in cool or shaded areas.

As a professional lifeguard, there are also some things you must *not* do. Keep the following in mind:

- Do not leave your lifeguard station while on surveillance duty.
- Do not use mobile phones or other devices for personal calls, texting or other types of communication when on duty.
- Do not slouch in a lifeguard stand. Always be attentive and sit or stand upright when on surveillance duty.
- Do not participate in conversations at the lifeguard station.
- Do not eat at the lifeguard station.

Figure 1-4



Regular exercise helps lifeguards stay physically fit.

- Do not leave the facility while on duty.
- Do not use alcohol or drugs. Alcohol or drugs can negatively affect job performance and can jeopardize the safety of patrons, co-workers and yourself.

SWIMMING FOR FITNESS

Getting to a victim, executing water-based rescues and moving the victim to safety, and performing life-sustaining resuscitation require you to have adequate strength and endurance at a moment's notice. This means that you need to constantly maintain or improve your personal level of fitness. Luckily, most lifeguards have access to one of the most versatile pieces of fitness equipment available, the water.

There are two main approaches to improving your level of fitness: improving endurance and increasing intensity. You can improve your endurance by practicing more, whether by swimming longer distances or for longer periods of time.

When exercising to increase endurance, you must commit to a regular, consistent workout schedule. Count the number of pool lengths that you can swim without having to stop to take a break. Your goal should be to increase this amount slightly each time you practice. At the beginning, you should be able to swim at least 300 yards without stopping. Try to build up to a competitive mile, which is about 1650 yards, or 66 lengths of a 25-yard pool. Once you build your endurance to this level, you will find it easy to practice even longer distances.

If your practice time is limited, you may choose to focus on the intensity of your swim. Typically,

when a person is doing an activity for a long period of time, he or she begins to slow down as muscles become fatigued. Strength is built by forcing muscles to work at or beyond their current peak level, which requires maintaining—or increasing—your level of effort over your period of exercise.

In swimming, this can be done through interval training. *Intervals* are a series of repeat swims of the same distance and time interval, each done at the same high level of effort. There is a rest period between the time spent swimming that depends on the speed of the swim. The entire swim series is a set. As an example, an interval set is “5 x 100 on 1:30.” This means that the 500-yard swim is broken up into five 100-yard swims, with 1:30 being the total amount of time for the swim and rest. In this example, a swimmer who swims the 100 in 1:15, has 15 seconds available for rest. This short rest period keeps the heart rate within the target range without dropping back to a resting heart rate. Interval training is the best all-around method to develop both speed and endurance.

As your level of fitness improves, you should combine the endurance and intensity approaches. Breaking down a larger endurance workout into smaller parts allows you to keep up your level of intensity, and it also helps to make the workout more interesting.



DECISION MAKING

Decision making is an important—and sometimes difficult—component of lifeguarding. In an emergency, such as a situation requiring a possible rescue or CPR, you must make critical decisions quickly and act quickly. Your facility should have established emergency action plans (EAPs), which are the written procedures that guide the actions of lifeguards and other staff members in emergencies.

In a non-emergency situation, such as how to work with your facility's management or how to interact with patrons, you can take more time for deliberation. In these kinds of situations, when time is not a critical factor, a decision-making model can help guide you through the process. The FIND decision-making model can be applied to lifeguarding situations to help you clearly understand what is involved in a decision. FIND means:

- F = Figure out the problem.
- I = Identify possible solutions.
- N = Name the pros and cons for each solution.
- D = Decide which solution is best, then act on it.

LEGAL CONSIDERATIONS

To avoid liability, it is important to understand the following legal principles that apply to your role as a professional lifeguard.

- **Duty to act.** While on the job, you have a legal responsibility to act in an emergency. Failure to adhere to this duty could result in legal action.
- **Standard of care.** You are expected to meet a minimum standard of care, which may be established in part by your training program and in part by state or local authorities. This standard requires you to:
 - Communicate proper information and warnings to help prevent injuries.
 - Recognize someone in need of care.
 - Attempt to rescue those needing assistance.
 - Provide emergency care according to your level of training.
- **Negligence.** When a person is injured or suffers additional harm because lifeguards failed to follow the standard of care or failed to act at all, the lifeguards may be considered negligent. Negligence includes:
 - Failing to control or stop any behaviors that could result in further harm or injury.
 - Failing to provide care.
 - Providing inappropriate care.
 - Providing care beyond the scope of practice or level of training.
- **Abandonment.** Once care is initiated, it must be continued until emergency medical services (EMS) personnel or someone with equal or greater training arrives and takes over. You can be held legally responsible for abandoning a person who requires ongoing care if you leave the scene or stop providing care.
- **Confidentiality.** While making a rescue or providing care, you may learn something about the injured or ill person, such as information about medical

conditions, physical problems and medications taken. This person's right to privacy is protected by laws that require you to keep information learned about the person confidential. Reporters, insurance investigators or attorneys may ask questions following an incident. This information should not be shared with anyone except EMS personnel directly associated with the person's care, facility management or the facility's legal counsel. Sharing personal information with individuals not directly associated with an injured person's medical care may constitute a breach of the victim's privacy.

- **Documentation.** Properly documenting injuries and incidents is very important. If legal action occurs later, your records and reports can provide legal documentation of what was seen, heard and done at the scene. Complete the required forms as soon as possible after the incident, preferably, immediately after the incident has wrapped up. As time passes, critical details may be forgotten. When completing a report, state the facts of the incident without including your opinion. Once the report is complete, sign and date it and have all responders read the report, then sign and date it as well. A copy of the report should be kept by the facility.
- **Consent.** An injured or ill person must give permission before responders can provide first aid and emergency care (Figure 1-5). To obtain consent:
 - State your name.
 - State your level of training.
 - Ask if you may help.
 - Explain that you would like to assess him or her to find out what you think may be wrong or what you can do to help.
 - Explain what you plan to do.
 - With this information, an ill or injured person can grant his or her informed consent for care. Someone who is unconscious, confused or seriously injured or ill (such as in a nonfatal drowning) may not be able to grant consent. In these cases, the law assumes the victim would give consent if he or she were able to do so. This is called *implied consent*. Implied consent also applies to a minor who needs emergency medical assistance and whose parent or guardian is not present.
- **Refusal of care.** Some injured or ill people may refuse care, even if they desperately need it. Parents also may refuse care for children. Even though someone may be seriously injured, his or her wishes must be honored. In these situations, you should explain why he or she needs care. For significant injuries, you should call EMS personnel to evaluate the situation. For non-life-threatening emergencies, when care is refused and you

Figure 1-5



You must ask for a victim's consent before giving care.

Good Samaritan Laws

Most states and the District of Columbia have Good Samaritan laws that protect people against claims of negligence after having provided emergency care in good faith without having accepted anything in return. These laws differ somewhat from state to state but generally help to protect people who act in good faith, within the scope of their training, and who are not negligent.

Some Good Samaritan laws, however, do not provide coverage for individuals who have a legal duty to act, which includes professional lifeguards. Therefore, it is important that lifeguards consult a lawyer or the facility's legal counsel to determine the degree of protection provided by their state's Good Samaritan laws.

Did You Know?

You may be evaluated periodically while on the job by your employer or through a contracted agency, such as the Red Cross or a combination of both. These evaluations may be announced or unannounced and may include how you perform patron surveillance and lifeguarding skills.

are asked not to call EMS personnel, make it clear that you are neither denying nor withholding care and that you are not abandoning the victim. You must document any refusal of care. Someone else, such as another lifeguard, should witness the person's refusal of care and sign a report. Ask the person who refuses care to sign the report as well; if he or she refuses to sign, note that on the report.

CONTINUING YOUR TRAINING

Earning a lifeguarding certification means you have successfully completed a training course and passed written and skill evaluations on a given date. It does not mean that you have learned everything there is to know about lifeguarding. Once hired as a lifeguard, you should expect that you will be required to continue your training.

It is the responsibility of facility management to provide direction and help lifeguards maintain and build on skills and to perform effectively as a team. Expect facility management to provide a pre-service evaluation, annual or preseason orientation and training, a policies and procedures manual and regular in-service training.

Pre-Service Evaluation

Facilities often require lifeguard applicants to hold a current training certificate from a nationally recognized agency, such as the American Red Cross. State codes, insurance company rules and standards of organizations to which your facility belongs may require your employer to evaluate your current skill level. Your employer may have you participate in rescue scenarios to ensure that you understand your responsibilities within your team and are familiar with your facility's layout and equipment.

Annual or Preseason Orientation and Training

Lifeguards should have annual training. This is especially important for seasonal lifeguards, who can forget knowledge and skills between seasons. Annual training can include review courses or a review of first aid, CPR/AED and lifeguarding knowledge and skills (Figure 1-6).

An orientation session about facility operations and lifeguards' responsibilities helps both new and returning lifeguards understand the facility, their responsibilities and management's expectations. The orientation is critical for learning what is unique about your workplace and how it differs from the environment in which you were trained. Ask your employer questions about your facility and become completely familiar with your facility's operations.

Figure 1-6



Annual training helps lifeguards maintain their knowledge and skills.

Policies and Procedures Manual

A policies and procedures manual should provide the information that you need to understand what is expected of you, to be able to work safely and to perform your duties effectively. This manual usually includes administrative policies and procedures, personnel policies and guidelines and standard operating procedures.

Regular In-Service Training

In-service training takes place while you are employed as a lifeguard and is designed to help you maintain your knowledge and skills at a professional level (Figure 1-7). It also gives you a chance to practice with other lifeguards at your facility. This will help you to efficiently respond as a team in an emergency.

BEING PART OF THE TEAM

There are two teams at most aquatic facilities: the *lifeguard team* and the *safety team*. The lifeguard team is formed whenever two or more lifeguards are on duty. The lifeguard team is part of a larger safety team, which is a network of people who prevent, prepare for, respond to and assist in an emergency at an aquatic facility. To be effective, members of both teams must know, understand and practice the roles that they are assigned in an emergency.

Lifeguard Team

If you work at a facility where two or more lifeguards are on duty at a time, you are part of a lifeguard team. To learn what you should expect from other team members, it is critical that you communicate and practice together. Your ability to respond to an emergency depends in large part on how much you have practiced the facility's EAPs together and how well you communicate.

By practicing with your team, you will learn how staff members work together in a variety of circumstances (Figure 1-8). Team practice also gives teammates the chance to work on different responder roles together. This is particularly important because team rescues are an integral part of lifeguarding. Several of the rescues presented in this course require more than one rescuer to provide care.

In-Service Training

It is a best practice of many well-managed facilities that lifeguards participate in a minimum of 4 hours of in-service training each month. The facility manager, lifeguard supervisor, a head lifeguard or an individual who is an expert in a particular subject matter, such as a public health official, risk manager or human resources representative, may conduct in-service trainings. Training sessions will address issues, such as surveillance and recognition, water and land rescue skills, emergency response drills, decision-making protocols, facility rules and regulations, customer service, records and reports and physical conditioning.

Figure 1-7



In-service training allows lifeguards to practice their skills.

Figure 1-8



Practicing together helps lifeguard teams be better prepared for an emergency.

In addition to practicing rescues and response, it is important that the team works to maintain a climate of teamwork. Effective communication, trust, mutual respect, commitment and cooperation are crucial elements for working effectively as a team. Some ways that you can have a positive effect on your team include:

- Arriving to work on time.
- Rotating stations on time.
- Attending in-service trainings.
- Enforcing safety rules in a consistent manner.
- Communicating clearly while treating others with respect.
- Being prepared by maintaining your knowledge, skills and physical fitness.
- Completing secondary responsibilities in a timely and acceptable fashion.

The Emergency Action Plan

The lifeguard team and other staff members must practice the facility's EAPs together until everyone knows their responsibilities and can perform them effectively.

Because conditions can change throughout the day, you may need to adapt the EAP to a particular situation. Some facilities have created more than one EAP to cover specific situations or conditions. Factors that may affect the steps of an EAP include the number of lifeguards on duty, the number and availability of other safety team members on duty and the types of patron activities occurring.

Safety Team

After your lifeguard team activates the facility's EAP, the safety team needs to back you up and provide assistance. The main objective of the safety team is to assist you in maintaining a safe environment and providing emergency care.

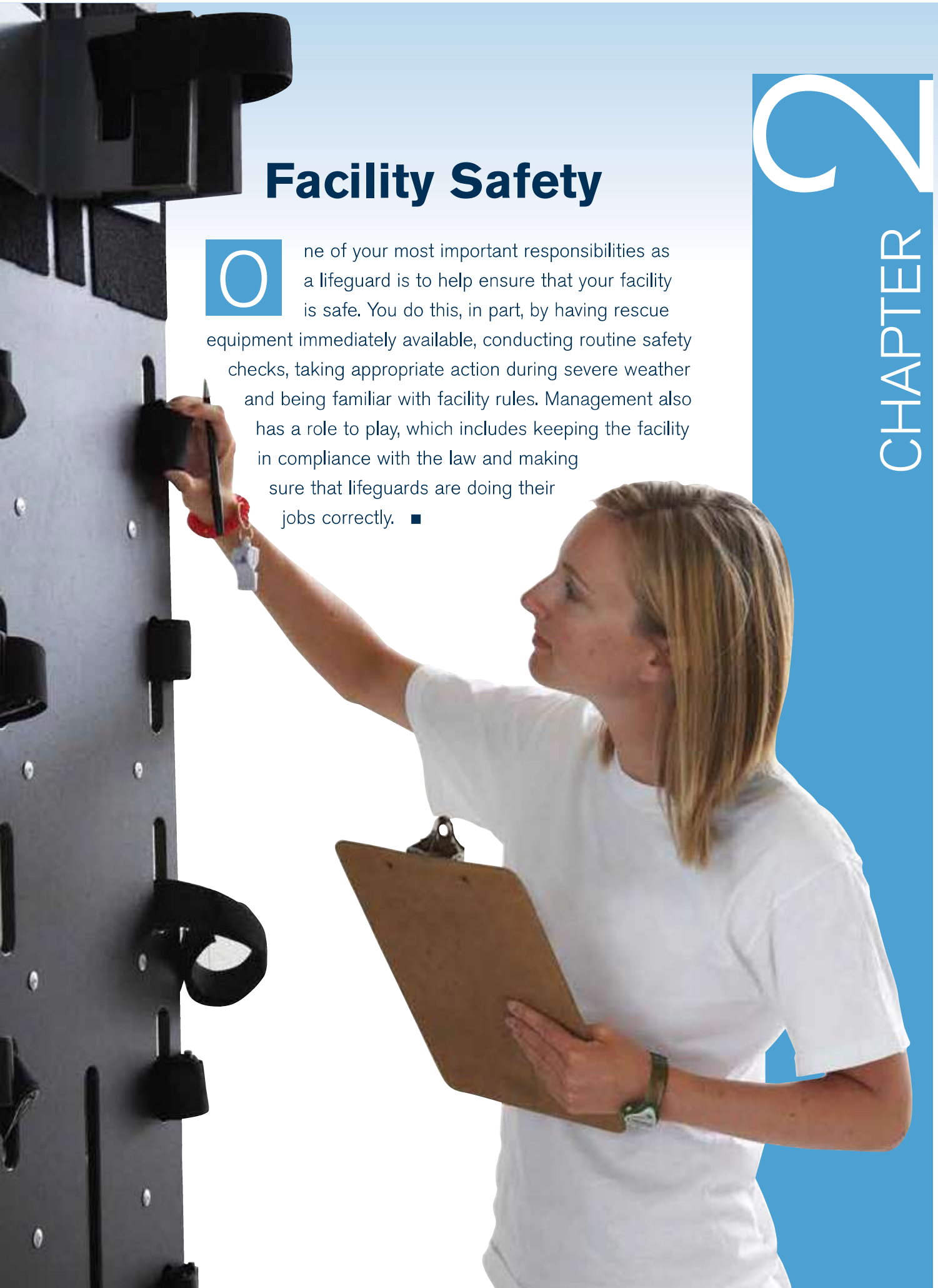
In addition to the lifeguard team and other facility staff members, the safety team is composed of local emergency service personnel. Other members of the safety team may work off-site and often include upper-level management personnel. Chapter 5 discusses safety team members and their roles and responsibilities.

WRAP-UP

Being a professional lifeguard means being fully prepared for this challenging and important work. Looking and acting professional indicates readiness to do the job. Maintaining professional conduct requires practice and commitment. No one is a natural-born lifeguard; it takes hard work. A lifeguard can meet the challenges and gain the rewards of being a professional through practice, hard work and dedication.

Facility Safety

One of your most important responsibilities as a lifeguard is to help ensure that your facility is safe. You do this, in part, by having rescue equipment immediately available, conducting routine safety checks, taking appropriate action during severe weather and being familiar with facility rules. Management also has a role to play, which includes keeping the facility in compliance with the law and making sure that lifeguards are doing their jobs correctly. ■



RESCUE EQUIPMENT

Aquatic facilities must have the appropriate rescue equipment available for emergency response and in proper working order at all times. Using rescue equipment makes a rescue safer for both you and the victim. You also must have immediate access to communication devices used at your facility to activate an emergency action plan (EAP), which may include a whistle, megaphone, radio, flag or other signaling equipment.

As a lifeguard, you must always wear or carry certain equipment so that it is instantly available in an emergency. The primary piece of rescue equipment used to perform a water rescue is the rescue tube. Another piece of equipment that must be immediately accessible is the backboard, which is used to remove victims from the water. Some facilities, like waterfronts, may use specific or specialty rescue equipment to meet the needs of their particular environments.

Equipment That You Wear or Carry

Figure 2-1



It is important to wear your lifeguard gear properly.

To respond quickly and appropriately to an emergency, a rescue tube, resuscitation mask and gloves must be instantly available. The best way to ensure this is to always keep the strap of the rescue tube over your shoulder and neck and wear a hip pack containing the gloves and resuscitation mask (Figure 2-1). You should wear the hip pack at all times, even when not on surveillance duty.

Rescue Tubes

The rescue tube is used at pools, waterparks and most non-surf waterfronts. It is a 45- to 54-inch vinyl, foam-filled tube with an attached tow line and shoulder strap. A rescue tube is capable of keeping multiple victims afloat.



When performing patron surveillance, always keep the rescue tube ready to use immediately.

- Keep the strap of the rescue tube over the shoulder and neck.
- Hold the rescue tube across your thighs when sitting in a lifeguard chair or across your stomach when standing.
- Hold or gather the excess line to keep it from getting caught in the chair or other equipment when you move or start a rescue.

Resuscitation Masks

A resuscitation mask is a transparent, flexible device that creates a tight seal over the victim's mouth and nose to allow you to breathe air into a victim without making mouth-to-mouth contact. All masks should have a one-way valve for releasing exhaled air. Some masks also have an inlet for administering emergency oxygen. Masks come in different sizes to ensure a proper fit and tight seal on adults, children and infants.



Gloves

Disposable (single-use) gloves are used to protect employees that may be exposed to blood or other body fluids. Gloves should be made of non-latex materials, such as nitrile. Gloves also should be powder free.



Equipment You Can Easily Reach

Other first aid and rescue equipment should be easily accessible for emergency use. This additional equipment may include backboards, rescue buoys, other personal protective equipment (PPE), other resuscitation equipment, an automated external defibrillator (AED), first aid supplies and rescue boards.

Backboards

A backboard is the standard piece of equipment used at aquatic facilities to remove victims from the water when they are unable to exit the water on



their own or when they have a possible injury to the head, neck or spine. Some backboards have runners on the bottom that allow the board to slide easily onto a deck or pier. A backboard must have a minimum of three body straps to secure a victim in cases of head, neck or spinal injury, in addition to a device for immobilizing the head. Additional straps may be necessary for special removal situations, such as steep inclines or vertical lifts.

Rescue Buoys

A rescue buoy (Figure 2-2), also known as a rescue can or torpedo buoy, often is the primary piece of rescue equipment used at waterfronts and surf beaches. Most rescue buoys are made of lightweight, hard, buoyant plastic and vary in length from 25 to 34 inches. Molded handgrips along the sides and rear of the buoy allow the victim to keep a firm hold on the buoy. Rescue buoys are buoyant enough to support multiple victims.

Figure 2-2



Rescue buoy

Personal Protective Equipment

Personal protective equipment (PPE) is the specialized clothing, equipment and supplies used to prevent you from coming into direct contact with a victim's body fluids. In addition to gloves and resuscitation masks, other PPE may be available at your facility, including gowns, masks, shields and protective eyewear. A blood spill kit should also be available to safely clean up blood.

Bag-Valve-Mask Resuscitator

Figure 2-3



Giving ventilations using a bag-valve-mask resuscitator.

A bag-valve-mask resuscitator (BVM) is a hand-held device attached to a resuscitation mask that is used to ventilate a victim in respiratory arrest or when performing CPR. BVMs come in various sizes to fit adult, children and infants. The appropriately sized BVM should be used based on the size of the victim. Using a BVM requires two rescuers: one to maintain a tight seal for the mask, and one to squeeze the bag (Figure 2-3).

Other Resuscitation Equipment

In addition to resuscitation masks, other resuscitation equipment is effective in responding to breathing and cardiac emergencies. Use of all of the following supplemental resuscitation equipment is

not covered in the Lifeguarding course and requires additional training. This equipment may or may not be used at your facility.

- **Oxygen cylinders and delivery devices.** In a breathing or cardiac emergency, oxygen cylinders and delivery devices are used to administer emergency oxygen to the victim.
- **Suctioning devices.** Manual suction devices are used to remove fluids and foreign matter from the victim's upper airway. They are lightweight, compact and operated by hand.



- **Airways.** Oropharyngeal and nasopharyngeal airways come in a variety of sizes and are used to help maintain an open airway in a nonbreathing victim. They do this by keeping the tongue away from the back of the throat during resuscitation.

Automated External Defibrillators

An AED is a portable electronic device that analyzes the heart's rhythm and can deliver an electrical shock, which helps the heart to re-establish an effective rhythm. This is known as defibrillation.



It is used in conjunction with CPR on unconscious victims with no obvious signs of life (movement and breathing). An AED should be available at your facility.

First Aid Kit and Supplies

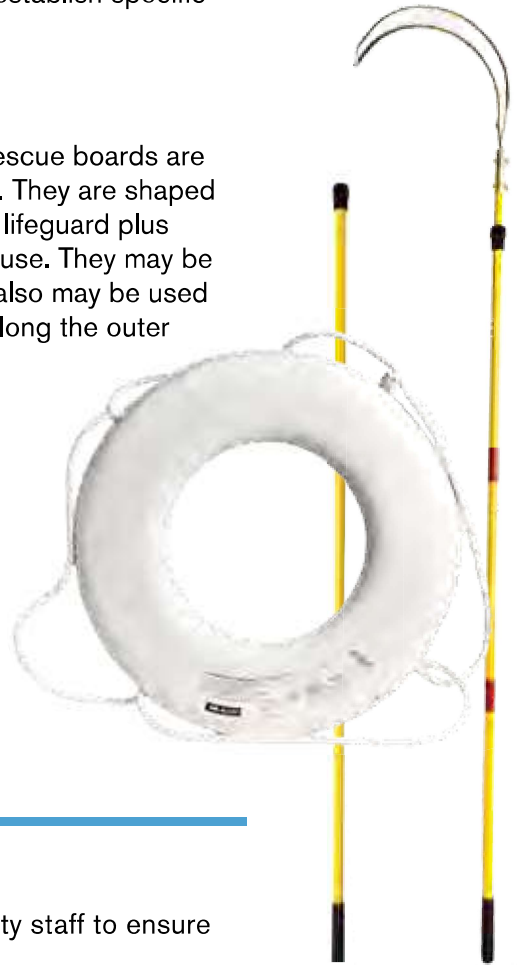
An adequate inventory of first aid supplies must be available at all aquatic facilities. Common contents of a first aid kit include items used to treat bleeding and wounds and to help stabilize injuries to muscles, bones and joints. Ice packs and rescue blankets also may be included since they may help to treat heat- and cold-related emergencies. Your state or local health department may establish specific requirements for the contents of your first aid kit.

Rescue Board

Some waterfronts use rescue boards as standard equipment. Rescue boards are made of plastic or fiberglass and may include a soft rubber deck. They are shaped similarly to a surf board but usually are larger to accommodate a lifeguard plus one or more victims. Rescue boards are fast, stable and easy to use. They may be used during rescues to quickly paddle out long distances. They also may be used by lifeguards as a patrolling device, with the lifeguard paddling along the outer boundary of the swimming area.

Ring Buoys, Reaching Poles, and Shepherd's Crooks

A ring buoy, reaching pole and shepherd's crook often are required by the health department for swimming pools and waterparks. This equipment is not typically used by lifeguards to perform the professional rescues taught in this course. This equipment usually is used by untrained bystanders. If your facility has any of these items, you should learn how to use them.



FACILITY SAFETY CHECKS

Facility safety checks are the primary tool used by aquatic facility staff to ensure overall safety for their facilities. These checks may be performed by lifeguards or by staff that are trained to handle facility operations and maintenance, or by a combination of both (Figure 2-4). A lifeguard supervisor or facility manager will instruct you about the specific procedures for your facility. You should never perform safety checks while also performing patron surveillance. If you identify an equipment problem during your surveillance or if a problem is reported to you, notify a lifeguard supervisor or another lifeguard who is not performing surveillance. If the condition is hazardous, follow your facility protocols and stop patrons from using the equipment or prohibit them from entering a potentially hazardous area.

Figure 2-4



When performing facility safety checks, report any unsafe conditions found.

TYPICAL ITEMS FOUND ON A FACILITY CHECKLIST

The facility safety checklist should include the status of the following items (if they are okay or not okay) and any action required.

Equipment:

Verify that all equipment is in good working order, there is a sufficient number and equipment is in the proper location.

Rescue Equipment

- Rescue tubes and/or buoys
- Rescue board
- Non-motorized craft
- Motorized craft
- Masks and fins
- Reaching pole
- Ring buoy

First Aid Equipment

- Hip packs
 - Resuscitation masks
 - Disposable gloves
 - First aid supplies
- Backboard(s) with head immobilizer and straps
- First aid kit
- AED(s)
- Suctioning equipment
- Emergency oxygen delivery system

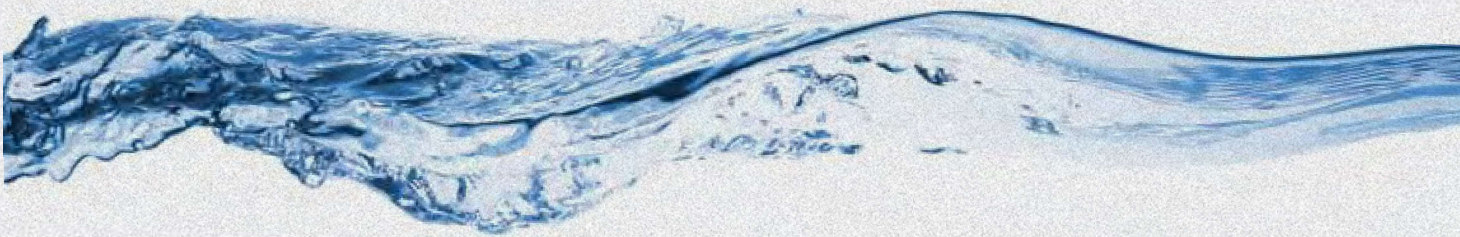
Safety Equipment

- Lifeguard stands/stations
- Communication devices – whistles, radios, E-stop(s)
- Telephone – directions for emergency calls posted
- PPE – extra gloves, gowns, face shield, blood spill kit
- Life jackets
- Umbrellas or shade structures
- Sunscreen

Operational Conditions:

As applicable for the environment and facility type.

- Bottom free of hazards
- Water clarity (pools and waterparks should see the bottom)
- Water level
- Water temperature – within specified range
- Air temperature – within specified range
- Weather conditions – safe
- Lighting – underwater and above ground working properly
- Water chemical ranges – within specified range
- Drain covers undamaged and secured
- Suction fittings undamaged and secured
- Circulation system – within range and proper operational condition
 - Flow rates
 - Filter differential
 - Hair/lint strainer
 - Gutter/skimmer baskets



Risk Management:

In place, visible, secure, clean, ready for use.

- Depth markings clearly visible
- Swim area sections set up with ropes and/or buoys
- Signage in line of sight for patrons
- Fences and barriers, gates and doors secure
- Walkways/decks clear, accessible, non-slip and free of hazards
- Handrails or guardrails secure
- Ladder rungs or steps secure
- ADA accessibility equipment secure and ready for use
- Diving boards – secure and non-slip
- Starting blocks – secure and non-slip
- Floating features – tethered and secure, undamaged
- Fire extinguishers – charged and ready for use
- Emergency exits – clear, accessible with working lights and alarms

Facility Sanitation:

Clean, non-slip and ready to use

- Pool shell – free of algae, free of scum line
- Deck or shoreline – clean and free of environmental debris, such as animal droppings
- Restrooms/locker rooms
 - Warm, running water
 - Soap
 - Paper products adequately stocked
- First aid station – adequately stocked
- Tables and seating
- Trash receptacles

Administration:

Posted or filed as applicable.

- Zones of surveillance diagrams posted
- Lifeguard rotation plans posted
- EAPs available
- MSDS sheets available
- Staff certifications – copies on file for all staff
- Training records – on file
- Water quality test results
 - Daily results posted
 - Records on file
- Rescue and/or incident reports on file
- AED inspection checklist – up-to-date
- Emergency oxygen system checklist – up-to-date

Aquatic Attractions:

- Rides and slides – inspected and test run complete
- Rafts, tubes and/or sleds – properly inflated and handles secure
- Landing areas free of rough surfaces and debris
- Water level and flow appropriate for attraction

Waterfronts:

- Shoreline is clean and free of sharp objects
- Bottom conditions are free from hazards
- Water conditions are safe for swimming
- Piers or docks are anchored, stable, and free from trip or injury hazards
- Lifeguard stands – surrounding area clear of objects



Figure 2-5



Use signs, ropes or cones to keep patrons away from unsafe conditions or areas not open to the public.

Safety checks are conducted before the facility is opened, during daily operations and at closing. Checks conducted before the facility is opened may include a physical inspection of all features, such as a test ride of all attractions. If you find an unsafe condition, you should correct the condition before the facility opens, if possible. If you cannot correct the problem, you should inform a supervisor immediately. If the condition is serious, the supervisor or facility manager may close or delay the opening of the facility, attraction or area until the condition is corrected. Signs, ropes or cones can keep patrons away from an area of the facility not open to the public (Figure 2-5). Inform other lifeguards about the hazard so that they can

direct patrons away from the area. You also should record incidents in the daily log or on the appropriate form or report.

RIP CURRENTS

This course is not intended to prepare lifeguards to work at surf waterfront environments; however, it is important for all lifeguards to understand the dangers of rip currents and to help educate others about these dangers.

A rip current is a strong channel of water that flows offshore beginning near the shore and often extending well beyond the breaking waves. Rips currents are often associated with underwater features, such as sandbars, that may cause a channel in the bottom of a body of water, allowing water to escape from the near shore through a narrow channel. They also commonly occur near physical structures, such as piers, groins and natural outcroppings. Rip currents can create fast moving currents that may exceed 8 feet per second—this makes it

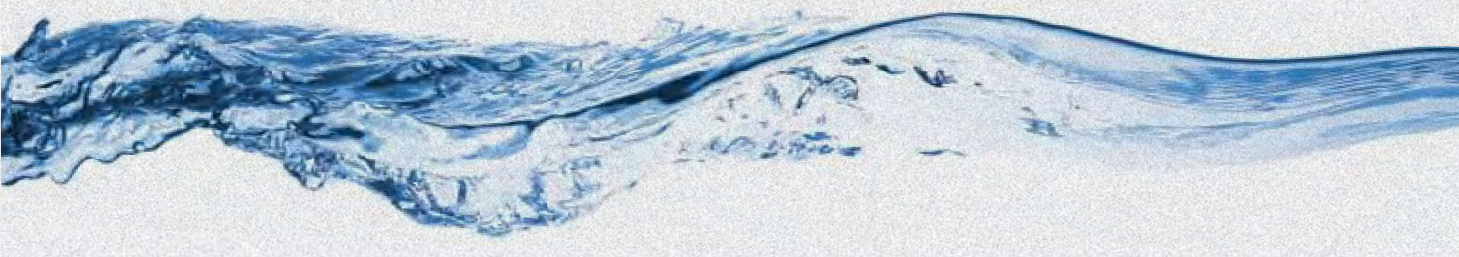
extremely difficult for even a strong swimmer to swim against.

According to the National Weather Service, common indicators of a rip current include:

- A channel of churning, choppy water.
- An area having a noticeable difference in water color.
- A line of foam, seaweed or debris moving steadily away from shore.
- A break in the incoming wave pattern.

Although these are good indicators, they are not always present. Consequently, it is not always possible even for an experienced lifeguard to spot a rip current. Rip currents can occur in any surf or weather condition.

The United States Lifesaving Association (USLA) estimates that each year more than 100 people



Specific Areas to Inspect for Safety

The facility's safety checklist is a guide for performing a safety check. The purpose is to verify that equipment has been tested, is working properly and is ready for use and that the facility is clean and safe for patrons. Your facility should have a checklist specific to your facility. General areas and equipment to inspect include:

- Rescue equipment (hip pack contents, rescue tubes, backboards and first aid supplies).
- Communication equipment.
- Pool decks or waterfront shorelines.
- Pools, waterfront swimming areas or waterpark attractions.
- Locker rooms (dressing areas, shower areas and restrooms).
- Equipment and structures (ladders, diving boards and starting blocks).
- Recreational equipment and play structures.

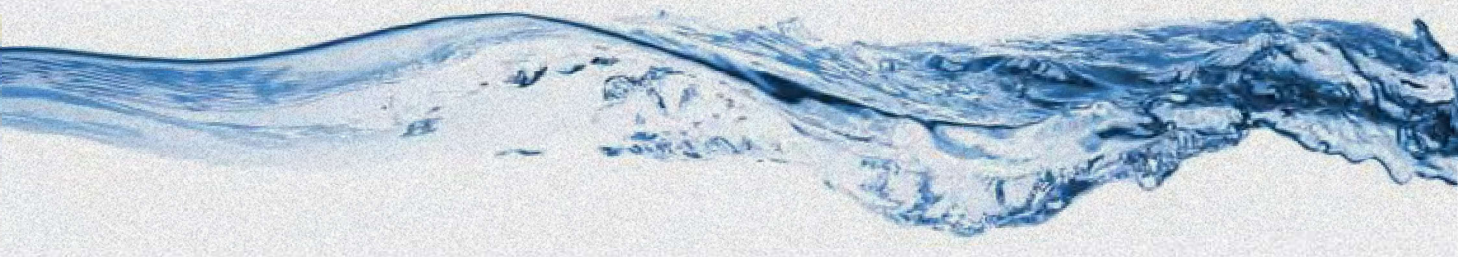
drown in rip currents. Rip currents are believed to account for more than 80 percent of rescues performed by surf lifeguards. This makes rip currents one of nature's most deadly natural forces. Many beaches and waterfront areas use color-coded flags to indicate the presence of hazardous water conditions and rip currents. Any time a red or double red flag is visible, stay out of the water; use extreme caution when there is a yellow flag.

If caught in a rip current, do not panic. Never attempt to swim against the current—fighting the current will cause you to become exhausted and possibly drown. Allow the current to take you away from shore. Once the current weakens, swim parallel to the beach then back to shore at an angle. Try to swim in the direction of least resistance to the current. If you are too exhausted to swim to shore, signal by calling and waving for help.

If you are lifeguarding at a waterfront area where there is the possibility of rip currents, it is critical to receive specialized training in the specific conditions and hazards that exist in your area and to learn how to identify rip currents and to help someone who is caught in them. For more information on rip currents, visit ripcurrents.noaa.gov and usla.org.



Photo courtesy John R. Fletemeyer



Inspecting Aquatic Attractions and Features

Figure 2-6



Safety checks are a primary method of facility surveillance and help prevent injuries to patrons.

Facilities should follow the manufacturer's guidelines for installation, safe inspection, maintenance and use of its various attractions and features (Figure 2-6). Your employer should provide you with a specific set of guidelines and training if you are responsible for these inspections. In some cases, maintenance personnel, rather than lifeguards, will be responsible for inspections. Even if the attraction or feature has been inspected already, stay alert for any problems that may develop, such as loose or rusted bolts; cracks; broken or missing pieces; frayed, loose or mildewed safety nets; unusual noises; and an area with increased frequency of injury to patrons.

Hazards at Waterfront Facilities

You should be aware of the specific potential hazards presented by some waterfront facilities. These include underwater hazards, physical structures and changing water conditions.

Dangerous conditions may develop with changing winds, tides and weather. On some days, the water may be totally calm and flat. On other days, there may be large waves. Checking for potentially hazardous conditions specific to your facility should be covered during your orientation. If they are not, ask your facility management to discuss procedures for any situation for which you do not feel adequately prepared.

Underwater Hazards

Figure 2-7



Remove any underwater hazards at waterfront facilities.

Common underwater hazards may change throughout the day and include:

- Holes in the swimming area and sudden drop-offs.
- Submerged objects, such as rocks, tree stumps and underwater plants (Figure 2-7).
- Bottom conditions (sand, rock, silt, weeds and mud).
- Slope of the bottom and water depth.
- Shells, barnacles and marine life.
- Broken glass or other sharp objects.

You should check for and, if possible, remove underwater hazards. If hazards cannot be removed, swimming areas should be re-positioned away from them. Alternatively, the shape and size of swimming areas may need to be changed to avoid underwater hazards. Floating buoys can be used to mark underwater hazards to warn patrons of their danger.

Physical Structures

Piers and docks in the water often are used for different activities (Figure 2-8, A–D). The following precautions should be taken with these structures:

Figure 2-8 A

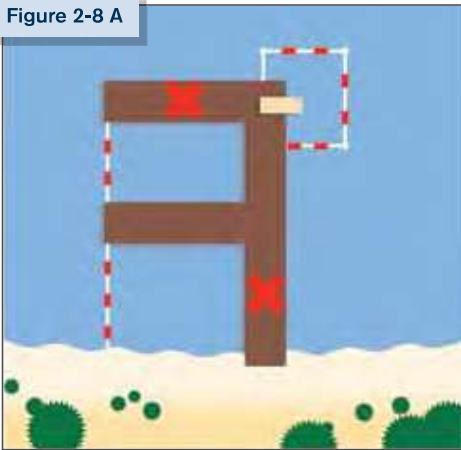


Figure 2-8 B

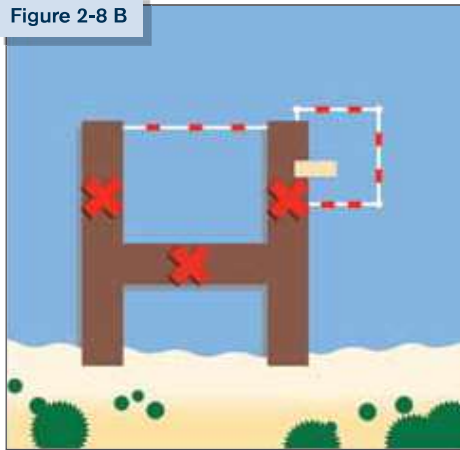


Figure 2-8 C

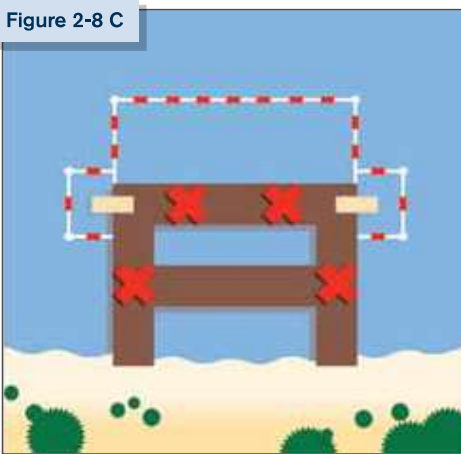
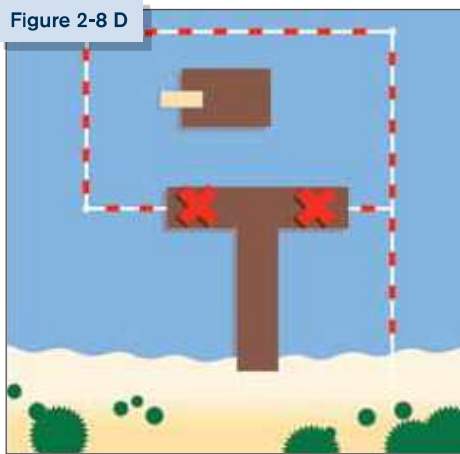


Figure 2-8 D



Dock formations: (A) "F" dock, (B) "H" dock, (C) "A" dock, (D) "T" dock.

- Ensure the floating piers, docks and rafts are anchored securely.
- Adjust attachment points between floating sections to minimize hazards.
- Be aware of and take steps to eliminate blind spots (obstructed views) caused by structures.
- Ensure that patrons dive only in designated areas. Check the water depth daily. Be aware of bottom and tidal changes before allowing head-first entries.
- Prohibit swimming in fishing areas around piers or docks or adjacent to boat activity.

Changing Water Conditions

Many factors can influence water conditions, which in turn can affect patron safety. These factors include:

- Water depth and currents. Changes in the water level may lead to increased currents that make standing difficult and could sweep swimmers beyond area boundaries. Examples include:
 - A dam that releases water, causing the water depth above the dam to drop and the river depth below the dam to rise.
 - Heavy rainfall that makes a lake or river rise, or a long, dry period that makes it too shallow for diving.
 - Tidal changes.

WATER QUALITY

The quality of water in spas and swimming pools constantly changes. It is affected by many factors, including the concentration of disinfectant in the water; the water's pH level, chemical balance and saturation; air temperature; sunlight; and contaminants from bathers and the environment. All of these factors are important not only for a safe swimming environment but also to ensure crystal-clear water clarity.

Additional training is needed, and a certification in pool operations often is required, to learn how and when to make chemical adjustments to the pool water. If you work at a swimming pool or waterpark, your responsibilities probably will include monitoring the water to make sure that it is safe, clean and clear. You may be asked to assist by periodically testing the water's chlorine or bromine and pH levels. You should receive training on how to properly test the pool water chemistry if this is included in your job responsibilities.

Disinfectant and pH Levels

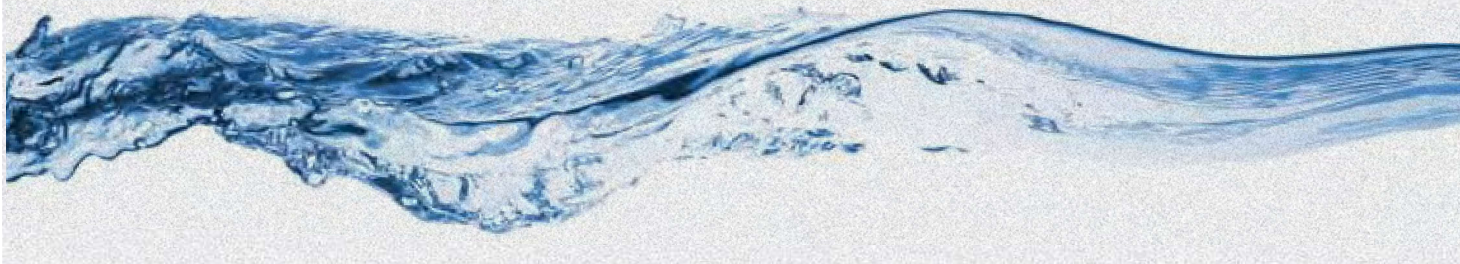
Chlorine is one of the most common chemicals used to disinfect pools and spas. When dissolved in pool or hot tub water, chlorine produces a chemical called *hypochlorous acid*, also

known as *free chlorine*. Free chlorine disinfects and sanitizes the water by killing germs and contaminants. To work most effectively, the free chlorine-to-water ratio should be 2 to 4 parts per million (ppm). This concentration of free chlorine, called a *residual*, should be maintained at all times throughout the water.

Free chlorine is colorless and odorless. However, it reacts with certain contaminants, such as human waste, to create *combined chlorines*, which are more commonly known as *chloramines*. Chloramines cause the chlorine-like smell found in indoor pools. Chloramines also can irritate the skin and mucous membranes.

The pH of the pool and hot tub water must be maintained at the appropriate level for free chlorine to be effective and for bathers to be comfortable. As the pH level goes down, free chlorine works better as a disinfectant. However, when the pH drops below 7.2, the water may irritate eyes and skin and corrode pool surfaces and equipment. Human tears have a pH of about 7.5; therefore, the ideal pH in pool and hot tub water is 7.4 to 7.6.

Bromine is another chemical commonly used to kill germs and contaminants in pool and hot tub water. It often is used in hot tubs instead of chlorine because it is more stable in hot



- Seiche, which is a standing wave of water that oscillates in large lakes usually created by strong winds and/or large barometric pressure gradients.
- Sandbars that can move and shift from season to season or from heavy rain that produces strong currents. These changes in the waterfront floor can create unexpected drops or new shallow-water features.
- Water quality. Insufficient flow may lead to stagnant water and compromise water quality.
- Debris or cloudiness in the water.

temperatures and does not burn away as quickly. It also does not leave a chemical odor in the water.

Testing and Adjusting

A supervisor, or another staff member trained and certified in pool operations, typically monitors and adjusts chemical levels throughout the day. However, you may be trained to test the chlorine or bromine and pH levels of the water. The water quality will need to be tested and the results recorded at periodic intervals throughout the day. Your facility should have a test kit available that measures free chlorine or bromine and pH levels. Some measure other water-balance levels as well. N,N-diethyl-p-phenylenediamine (DPD) is the most common test chemical used to test for free chlorine or bromine. DPD reacts with chlorine and turns the water test sample shades of light to dark pink. Phenol red is a dye used to test the water's pH. Its color changes from yellow to orange to red based on the pH level. The water test result color is compared with the colors on the test kit.

Your facility will have guidelines for the minimum, maximum and ideal ranges for chlorine or bromine and pH levels for safe swimming. Alert the appropriate staff member immediately if

the water test results are not within the proper ranges for safe swimming at your facility. Adjustments may need to be made as soon as possible or the pool or hot tub may need to be temporarily closed until the chemical ranges are correct for safe swimming.

Waterfront Considerations

(Source: <http://water.epa.gov/type/oceb/beaches> Accessed September 6, 2011)

Water quality is also important at natural bodies of water. Swimming in unsafe water may result in minor illnesses, such as sore throats or diarrhea or more serious illnesses, such as meningitis, encephalitis or severe gastroenteritis. Children, the elderly and people with weakened immune systems have a greater chance of getting sick when they come in contact with contaminated water. The quality of natural bodies of water can be impacted by pollutants, such as runoff from animal waste, fertilizer, pesticides, trash and boating wastes and especially storm water runoff during and after heavy periods of rain. The Environmental Protection Agency recommends that state and local officials monitor water quality and issue an advisory or closure when beaches are unsafe for swimming.

- Water temperature, which usually is colder early in the summer and after rain. Although surface water may be warm and comfortable, water at a depth of several feet can be much colder. This condition, called a *thermocline*, can cause *hypothermia* (low body temperature).

When dealing with changing water conditions:

- Warn patrons of hazards by using signs, buoys and safety announcements.
- Check for objects that may have washed into the area.
- Check for changes in bottom conditions, water depth and water quality.

