



**monroe one**  
EDUCATIONAL SERVICES

# **Swimming Pool Safety and Emergency Action Plan**

Monroe One BOCES  
41 O'Conner Road  
Fairport, NY 14450

**Swimming Pool  
Safety and Emergency Action Plan  
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## **Monroe One BOCES Swimming Pool Safety and Emergency Action Plan**

### **Introduction**

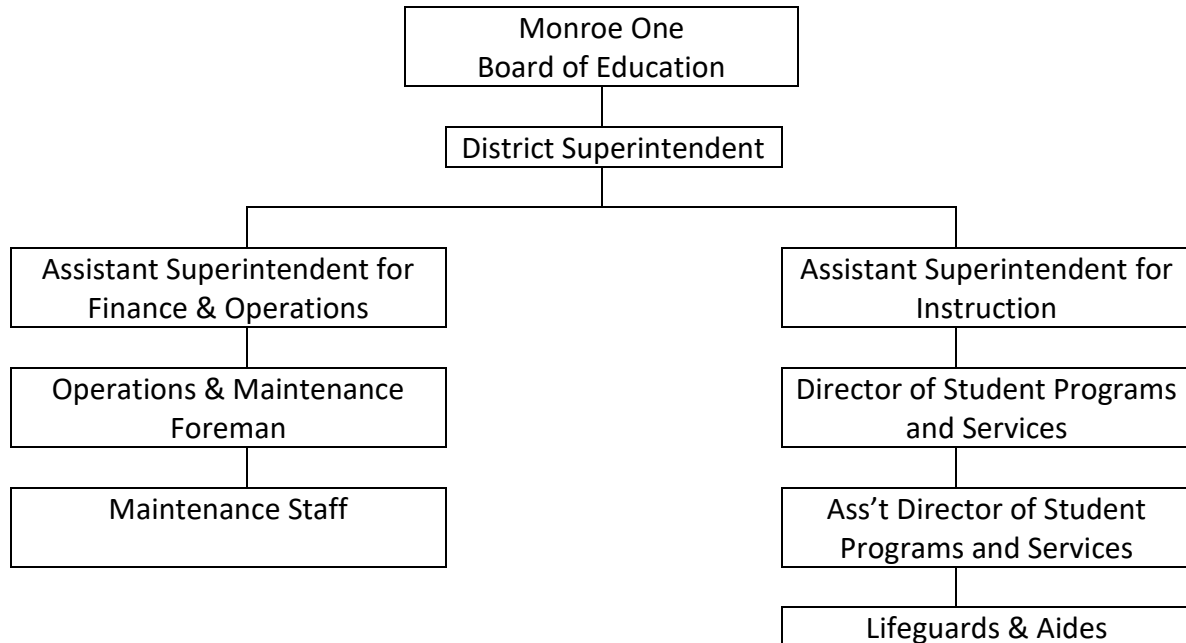
It is required by Section 6-1.23 (c) and 6-2.17 (a)(4) of the New York State Sanitary Code that pool and beach operators develop, update and implement a written safety plan. The plan must include procedures for reacting to emergencies, injuries and other incidents, providing first aid, summoning help, ensuring daily bather supervision and injury prevention.

### **I. Organization and Management**

#### **A. Emergency Contacts**

<b>Name</b>	<b>Position</b>	<b>Office Phone</b>	<b>Cell Phone</b>	<b>E-mail Address</b>
Shannon Duserick	Ass't Director of Student Programs & Services	(585) 249-7236		Shannon_duserick@boces.monroe.edu
Julia Boname	Lifeguard	(585) 383-2288		Julia_boname@boces.monroe.edu
James Hartman	O&M Foreman	(585) 249-7066	(585) 967-0203	James_Hartman@boces.monroe.edu
Jim Mulcahy	Custodial Supervisor	(585) 249-7292	(585) 857-1258	Jim_Mulcahy@boces.monroe.edu
James Colt	Director of Safety & Security	(585) 383-2298	(585) 737-7915	James_Colt@boces.monroe.edu

#### **B. Chain of Command**



### **C. Job Duties and Descriptions**

1. Board of Education
  - a. Establish policies governing the aquatic activities,
  - b. Approves employees working in the swimming pool.
2. District Superintendent
  - a. Implements policies of the board of education,
  - b. Recommends approval of all employees working in the swimming pool.
3. Assistant Superintendent for Finance & Operations
  - a. Selects operations and maintenance staff for employment recommendations,
  - b. Over sees operations and maintenance employees.
  - c. Over sees planning and provisioning for proper pool supplies and equipment.
  - d. Oversees the development of Emergency Plans
4. Operations & Maintenance Foreman
  - a. Supervises the maintenance staff day to day operations and assigns work.
  - b. Recommends changes in supplies and equipment replacement schedules.
5. Maintenance Staff

Maintain the facility in a clean and safe condition to include:

  - a. Inspecting the pool each morning prior to use,
  - b. Brushing pool walls and vacuuming the pool bottom daily between pool closing and pool reopening for use.
  - c. Test chlorine and pH four (4) times per day (7:00 am, noon 4:00 pm, and 7:00 pm), and record results on the Health Department form. Completed forms are either to be sent to the Health Department on the last day of the month, or kept on file for review by the Health Department representative.
  - d. Adjust the chemical feed equipment as necessary. Maintain filtrating equipment such as the backwash filters, hair strainer basket.
  - e. Cleaning and supplying locker, toilet, and shower facilities.

6. Assistant Superintendent for Instruction
  - a. Recommends instruction staff for employment, including the Director of Student Programs and Services.
  - b. Over sees Pool Operation.
7. Director of Student Programs & Services
  - a. Recommends instruction staff for employment, including the Assistant Director of Student Programs and Services.
  - b. Over sees Pool Operation.
8. Assistant Director of Student Programs & Services
  - a. General supervision of the swimming pool,
  - b. Advocate for swimming pool improvements,
  - c. Interviews employees who may work in the swimming pool,
  - d. Supervises all athletic activities and facilities within Monroe One BOCES with the assistance of certified teachers and adjunct staff.
  - e. Recruits, interviews, and recommends the hiring of lifeguards and teacher aid staff
  - f. Directs and supervises all personnel in the proper maintenance and operation of the swimming pool to include:
    - Scheduling work hours, breaks, rotation of guards, and posting of schedules
    - Coordinating fitness training and drills
    - Being responsible for the condition and placement of lifesaving equipment
9. Lifeguard or Teacher Aide
  - Maintain a logbook of incidents
  - Performing teaching and lifeguard duties
  - Maintains proper certifications for lifeguarding and CPR
  - Designating and scheduling use of various swimming ability areas
  - Assures that all safety equipment is in its place, and in good repair each day prior to the opening of the swimming pool
  - Guards the assigned areas of the swimming pool
  - Enforces rules and regulations
  - Participates in fitness drills and training
  - Completes written reports of incidents

## II. Injury Prevention

### A. Daily Inspection Duties

#### 1. Lifeguard and Aides

- a. Make sure all lifesaving equipment is in good condition, and it is in the proper place. Report any defects to the Pool Supervisor immediately so the equipment can be either repaired or replaced
- b. At a lifeguarded pool, ring buoys are not a substitute for rescue tubes. Also the rescue tubes must stay with the lifeguard, not hung on the wall unless these are in addition to the rescue tubes that the lifeguard(s) carry with them.
- c. The 15 foot reaching pole is to be hung on the hooks provided on the wall space above the deck in the deep end of the pool.
- d. The spine board and 24 unit first aid kit are to be at the poolside. The first aid kit needs to be restocked as necessary.
- e. The pocket mask, used in artificial respiration, is to be kept with the first aid kit.
- f. The depth markings on the edge of the pool deck must be visible. The "No Diving" sign must be clearly posted on the pool deck or wall in areas where the water depth is less than eight (8) feet deep.

#### 2. Maintenance Staff

- a. Underwater pool lights and other electrical circuits in the pool area – test ground fault interrupter (GFCI) at least once a week and record results
- b. Main drain gate – to be secured to the bottom and not broken
- c. Pool doors – self-closing and self-latching mechanism to be operational
- d. Pool ladders – to be firmly anchored to pool walls and deck.
- e. Water clarity is to be such that the main drain is clearly visible
- f. Make sure the covers are on the acid and chlorine crocks, and the labels on the crocks are clearly visible.
- g. Make sure all 5-gallon chlorine containers are stored in a properly secured area. All new deliveries are to be put away immediately.
- h. Throughout the day, periodically check locker and toilet rooms for standing water, mop as needed to eliminate slippery conditions.
- i. Immediately repair any deficiencies reported by the Director of Physical Education, the Pool Supervisor, Lifeguard or aide. If immediate repairs are not possible, the affected areas are to be appropriately marked against use.

## B. Rules and Regulations

1. The lifeguard or aide is to assure that the signs containing the rules and regulations are posted in areas of the pool near entrances and exits. These signs should be readable and complied with.
2. The lifeguard or aides must maintain a progressive disciplinary program:
  - a. First offense – speak directly with person
  - b. Second offenses – keep the person out of the water for a short period of time, and speak with the person again.
  - c. Third offenses – speak directly with the person again and explain that they are being denied the use of the pool for one or more days.
3. The lifeguard or aide must be familiar with the closing and emergency closing of the swimming pool.
4. General rules to be posted:
  - a. No “horseplay” in the water or on the pool deck.
  - b. No running on the pool deck.
  - c. No diving
  - d. No glass allowed in the pool area
  - e. No eating in the pool area
  - f. No throwing of objects in the pool area
  - g. Additional general or health related rules may be established
5. Health rules to be posted:
  - a. Showers are to be taken before entering the water
  - b. Bathing caps may be required
  - c. Persons with open rashes or sores are not allowed in the facility
  - d. No spitting, spouting water or blowing the nose in the water
  - e. No urinating or defecating in the water
  - f. No chewing gum
  - g. No food, drink, or smoking in the pool area.
  - h. Pets are not allowed in the facility
  - i. Appropriate bathing attire must be worn
  - j. Street shoes and street clothing are not to be worn in the pool area
  - k. First aid equipment is to be used by authorized personnel only
  - l. Additional general or health related rules may be established



### C. Diving Safety

At its deepest depth the Monroe One BOCES Therapeutic Pool is seven feet deep. There is no designated diving area. **No diving is allowed.**

### D. Bather Capacity

1. The lifeguard or aide will, every half an hour, determine the actual numbers of persons in the pool area. It should not exceed the maximum capacity certified for the area.
2. The New York State Uniform Code of the Fire Protection requires that each area be designated by a maximum capacity.
3. The New York State Health Department determines the maximum capacity for a swimming pool by allowing:
  - a. Shallow area – fifteen (15) square feet of pool water surface area per bather.
  - b. Deep area – twenty-five (25) square feet of pool water surface area per bather.
4. The maximum number of people allowed in the facility at any one time is 72.
5. A sign shall be posted in the pool area stating:
  - a. The maximum numbers of bathers who may use the swimming pool at one time.
  - b. The hours that the swimming pool is open.
  - c. That pool use is prohibited at any other time.
  - d. Swimming is not allowed when pool is closed.
  - e. Swimming is prohibited when you cannot easily see the bottom drain due to turbid water.
  - f. If bottom drain grate is loose or missing or if the pool water PH and or chlorine is out of swimming range, swimming is also prohibited.

### E. Supervision and Coverage

1. The Life Guard & Aid projects the number of guards or aides needed based upon the anticipated swimmer load and considering if this facility has:
  - Swimming with other schools or groups,
  - Other groups of swimmers using this pool,
  - Open swim besides the student use,
  - Other activities that would require more or different supervision or use of first aide equipment.
2. Elevated lifeguard chairs shall be provided at all pools having a pool water surface area greater than 2,000 square feet. For each additional 2,000 square feet, one lifeguard chair shall be provided. The chairs shall be located so as to provide a clear, unobstructed view of the pool bottom in

the area under surveillance and be in compliance with the New York State Health Department. Each chair is to be equipped with a rescue tube with 6 feet of rope and a whistle.

3. The swimming area will be divided into sections based on swimmer need or ability. All sections will have sufficient lifeguard coverage.
4. There should be one roving lifeguard who covers those areas of the water that are blind to the lifeguards who cover sections of water from a stationary position.
5. Lifeguards should provide a great degree of visual surveillance. They should scan their area of responsibility; they should scan small overlapping adjacent area.
6. In emergency situations, when there are two or more lifeguards on duty, and one lifeguard must enter the water, each lifeguard who remains out of the water will have a larger area of responsibility to supervise. It will be necessary for the lifeguards remaining out of the water to move to a better vantage point, or to begin making swimmers leave the water.
7. Lifeguards will be provided with a 15-minute break each hour. At this time, a rotation of stations will be done.
8. The lifeguards must not engage in activities that will interfere with the supervision of swimmers.

#### F. Chemical Storage and Handling

Good safety habits and proper handling of chemicals are essential for accident prevention. The following general rules should be taken into consideration when storing and handling swimming pool chemicals.

1. Maintain good housekeeping standards
2. Store all pool chemicals in a cool, dry, well ventilated area
3. Remove any damaged products from the shelf immediately.
4. Keep clean, clear, plastic bags and a suitable container available in the event of a spill or emergency
5. Notify Environmental Health and Safety of any potential emergency situation
6. Keep spilled material dry and prevent mixing with other materials
7. Use only water to extinguish chlorine fires
8. Rotate inventory on a first in, first out basis
9. Store chemicals on pallets or shelving at all times

**DO NOT –**

1. Do not store liquid chemicals above solids
2. Do not smoke where pool chemicals are stored or handled
3. Do not place spilled material back into the original container
4. Do not allow chlorine to become damp or wet
5. Do not dispose of spilled material in trash or waste containers
6. Do not use dry powered fire extinguishers
7. Do not mix pool chemicals together
8. Do not allow chlorinated material into the sewer
9. Do not store chemicals near incompatible materials such as oils, grease, or flammable materials

Individuals responsible for the use and storage of chemicals must exercise extreme caution to prevent injury:

1. NEVER add water to chemicals; always add chemicals to water slowly
2. NEVER pour from an unlabeled container
3. ALWAYS check the labels carefully before you pour
4. ALWAYS keep chemicals in their original containers

### **III. Emergency Plan**

#### **A. Communication System**

1. Whistle Signals
  - 1 short blast to get attention of swimmer
  - 2 short blasts to get attention of another guard
  - 3 short blasts EMERGENCY – guard leaving station
  - Long Blast to clear the water
2. Air Horn: 1 long blast EMERGENCY person in charge to respond

#### **B. Emergency Telephone Numbers**

1. Telephones for emergency purposes are located in the pool office. All lifeguards or aides must be aware of their location.
2. Telephone numbers for the following are posted at the pool office telephone
  - a. Local ambulance
  - b. Fire department
  - c. Police department
  - d. Poison Control Center
  - e. Monroe One BOCES Safety and Security Office
  - f. Monroe One BOCES Nurse's Office
3. A checklist of information to provide when telephoning for emergency assistance:
  - a. Name of caller
  - b. Location of facility
  - c. Telephone number of facility
  - d. Type of incident (drowning, cardiac arrest, chlorine gas, etc)
  - e. Required assistance (ambulance, fire, police)
  - f. Approach route
  - g. Advise that someone will be waiting outside to meet them
  - h. Before hanging up – ask if further information is needed.

#### **C. First Aid Area**

If it is not reasonable to provide first aid on the pool deck, then the first aid area is the pool office. If the injured person is mobile, the nurse's office is in M-2 of Creekside School. If the injury is not mobile, then 911 must be called and an ambulance must be summoned.

#### D. Missing Person Procedure

1. A predetermined signal should be given to alert staff when a person is reported missing (3 short blasts of a whistle)
2. All available staff not on duty should report to the office or to the deck right outside the pool office door.
3. The person reporting the missing individual should give a complete description of the missing person such as sex, height, color of hair, color of skin, weight, and clothing. The person should remain at the office for future identification of the missing person
4. The swimming pool should be cleared of all swimmers. The swimmers should be required to sit on the deck around the pool and remain quiet (1 long blast of the air horn).
5. The bottom of the pool, which should be visible, should be scanned for the missing person. The rest room facilities, locker rooms, and showers should also be checked
6. If the missing person can not be found in the above areas, further checking in other areas of the school should be done until the missing person is found.

#### E. Incident Log

1. A written report is to be completed by the Pool Supervisor or the supervising lifeguard immediately following an incident. Specify the times, actions taken by various individuals, any witness statements, and equipment used.
2. A full report of any injury or illness incident occurring at a swimming pool shall be reported by the Pool Supervisor to the Monroe County Health Department within 24 hours of its occurrence, and a notation recorded in the incident log book. This shall include all incidents occurring at the swimming pool which:
  - Results in death
  - Requires resuscitation
  - Requires referral to a hospital or other facility for medical attention
  - The bather's illness or injury may be associated with bathing water quality.

#### F. Fecal Incidents

1. For both formed-stool and diarrheal fecal incidents, CLOSE THE POOL IMMEDIATELY and do not allow anyone to enter until the following disinfection process is complete.
2. Formed-stool Incident:
  - a. Remove as much fecal material as possible with a net or a bucket. Dispose of the fecal material in a sanitary manner. Disinfect the net or bucket used – this could mean leaving it immersed in the pool. Do NOT vacuum the stool from the pool.
  - b. Raise the free chlorine to 2 ppm with a water pH of 7.5 or less and a water temperature of 77°F or higher. Ensure the filtration system is full operation. Maintain these water conditions for not less than 25 minutes before reopening the pool.
3. Diarrheal Incident:
  - a. Raise the free chlorine concentration to 20 ppm with a water pH of 7.5 or less and a water temperature of 77°F or higher. Ensure the filtration system is full operation. Maintain these water conditions for not less than 13 hours before reopening the pool. OR, if raising the free chlorine concentration beyond 10 ppm is difficult, or beyond testing equipment on hand, then assume 10 ppm is the concentration and maintain the conditions for 26 hours before reopening the pool.
  - b. Backwash the filter, discharging the effluent directly to waste. Do NOT return effluent to the filter.
4. Document all fecal incidents on the FECAL INCIDENT LOG, copy of which is in the appendices.

#### G. Medical Emergencies

Any medical emergencies such as a heart attack, convulsions or stroke should be handled in the following manner:

1. If it occurs in the water, and the person has to be assisted from the water, they should be referred to the hospital or other medical facility by ambulance or parent.
2. If it occurs while the person is on the deck, the person should not be allowed to remain in the pool area and should not be allowed to enter the water. The person should be referred to the hospital or other medical facility by ambulance or parent.
3. The situation should be documented in the Incident Log Book and reported to the Monroe County Health Department within 24 hours.
4. Health Department after hours 753-5057. Medical Examiner 753-5905. Medical Examiner will reach the Health Department officer who is on call.

#### H. Epileptic Seizures

1. If it occurs in the water an effort should be made to support the victim so that his or her head and face remain above the water with the head tilted back to provide a clear airway.
2. Keep the victim away from the sides of the pool or deck to avoid an injury that could be caused by uncontrolled arm and leg movements. Flotation devices can be used to assist in this situation.
3. The victim should be removed from the water after the seizure has been completed.
4. The victim should be referred to the hospital or other medical facility by ambulance or parent.

Any person suffering a seizure in the pool water and submerges should be transported to a medical facility regardless of apparent recover. A person suffering a seizure should not be allowed in the water again for the remainder of the day.

#### I. Evacuation Procedure

The Evacuation Procedure will be posted in a red frame on a wall in the pool and also by the boys and girls locker rooms. The Evacuation Procedure shall be part of the orientation of each new group of swimmers throughout the year. The Pool Supervisor or lifeguard on duty shall be in charge of the procedure as follows:

1. Swimmers at the shallow end of the pool shall line up at the front door leading into the lobby (southeast corner of the pool).
2. Swimmers at the deep end of the pool shall line up at the rear exit door leading outside to the parking lot (northwest corner of the pool).
3. Swimmers in the locker rooms shall line up at the Lobby entrance door.
4. At least one adult will accompany each group of swimmers. Everyone shall remain by the designated doors until the lifeguard indicated the drill is over.

#### J. Chlorine Gas Leaks

Chlorine gas can be produced when liquid chlorine and an acid are mixed. It is an extremely hazardous substance that can cause injuries or death in humans. Chlorine gas is heavier than air and stays at or near ground level.

In the event of a spill or leak involving chlorine gas the following steps should be taken:

1. Immediately evacuate the pool area following the evacuation procedure and move at least 50 feet from the building.
2. Call the Fire Department – using posted procedures.

#### **IV. In-Service Training and Drills**

##### **A. In-Service Training**

It is the responsibility of the Director of Special Education or the Pool Supervisor to plan regularly scheduled sessions to review aspects of lifeguard principals and practices. These training sessions should be mandatory for all personnel who carry out the duties of a lifeguard in the pool area.

1. Review general lifesaving skills in the water.
2. Practice removals from the water for a person who may or may not be injured. Use of the spine board for possible back or neck injury should be practiced.
3. Practice artificial respiration on a person while in the water. Use of the rescue buoy to accomplish this skill.
4. Knowledge and use of all rescue equipment required in the swimming pool should be demonstrable by each lifeguard.
5. Review first aid skills and cardiopulmonary resuscitation.
6. Review preventative lifeguarding skills and procedures.
7. Review all emergency procedures. Emergency action plans should include but not be limited to:
  - a. Victim recognition – distress situations or drowning situations
  - b. Individual assignments
  - c. Emergency calls and signals
  - d. Back up systems
  - e. Records and reports

##### **B. Drills**

The Assistant Director of Student Programs & Services will, on a monthly basis, present to the aquatic staff an emergency situation to be role played. The actions and outcomes will be evaluated, reviewed, and constructive criticism made of the event.



### C. Lifeguard Performance Standards

<b>SKILL</b>	<b>TIME</b>
1. Recover a 10 pound object in 10 foot depth of water with a 30 foot approach and surface dive	10 seconds or less
2. Tow a 10 pound object 50 yards using the inverted breaststroke kick	1 minute 15 seconds or less
3. Tow a 10 pound object 50 yards using the scissor kick	1 minute 15 seconds or less
4. Swim 50 yards freestyle	35 seconds or less
5. Swim 500 yards American Crawl	10 minutes or less
6. Tread water while supporting a 10 pound object in both hands	2 minutes
7. Float in a supine position motionless	2 minutes

## **V. Swimming Pool Maintenance**

Persons who are responsible for the proper operation of the maintenance of the filtration and disinfection equipment at swimming pools must have technical knowledge of water chemistry. This knowledge should include thorough understanding of disinfectants; the methods of testing and controlling the chemical balance of water, including pH level and the turbidity; the physical and biological properties of water; and the bacteriological standards that are established for the facility.

### **A. Treatment**

All swimming pools shall be equipped with a recirculation system which includes filtration and disinfection facilities to provide water quality consistent with the bacteriological chemical and physical standards.

### **B. Water Quality**

1. Sample Collection Analysis: Microbiological samples shall be collected from swimming pools when determined by the permit issuing official to be necessary to evaluate water quality and be examined in laboratories approved by the New York State Health Department.
2. Microbiological Quality: Coliform bacteria levels should not exceed 4 parts per 100 milliliters in more than one sample examined each month. When the membrane filter technique is used; or when the fermentation tube method is used, coliform bacteria shall not be present in more than 10% of portions analyzed in any month; also, total bacteria shall not exceed 200 parts per milliliter.

### **C. Chemical Quality**

1. The chemical quality of the water in the pool shall not cause irritation to the eyes or skin of the swimmers or have other objectionable physiological effects on swimmers.
2. The total alkalinity of the pool water shall be maintained within the range of 80 – 120 mg/l.
3. The pool water shall be chemically balanced. The Monroe County Health Department official may determine the saturation index monthly or any other frequency required to maintain pool clarity, proper disinfection, alkalinity, and pH levels.

#### D. Cleanliness

1. The bottom and sidewalls of the swimming pool shall be kept free of sediment and visible soil, and the pool water surface shall be kept free of visible floating matter.
2. The water in the swimming pool shall be sufficiently clear to permit a white and black object four inches in diameter, placed at any location at the bottom of the swimming pool to be clearly visible from the side of the swimming pool at all times.
3. Recommendation for Swimming Pool Conditions
4. Bacteria – no coliforms
5. Air temperature – 5 – 10 degrees higher than water temperature
6. Chemical levels – balanced to provide healthful environment
7. Turbidity – sparkling water, bottom visible from anywhere on the deck
8. Water color – blue
9. Pool bottom – vacuumed and free of dirt and other materials, such as hair
10. Dissolved solids – less than 200 parts per million
11. Decks – clean; free of stagnant water and algae; not slippery

#### E. Water Problems

PROBLEM	CAUSES
Turbidity (cloudy water)	<ul style="list-style-type: none"> <li>• Low disinfectant residual</li> <li>• Tear in DE filter cover</li> <li>• Water level below gutters or skimmer when pool not in use</li> <li>• Filters need cleaning</li> <li>• Precipitate from pH above 7.8</li> </ul>
Algae	<ul style="list-style-type: none"> <li>• Low Disinfectant residual</li> <li>• Using a disinfectant ineffective against algae</li> <li>• Having a pH above 7.8</li> <li>• Water too warm</li> </ul>
Colored Water	<ul style="list-style-type: none"> <li>• Water not balanced</li> <li>• Green – high copper or iron compound content</li> <li>• Red or reddish brown – high iron content (rust)</li> <li>• Brown or black – high manganese content</li> </ul>
Eye Irritation	<ul style="list-style-type: none"> <li>• Having a low pH – below 7.0</li> <li>• Having a high pH – above 8.4</li> <li>• High level of chloramines (chlorine and ammonia compounds)</li> </ul>
Chlorine Odor	<ul style="list-style-type: none"> <li>• Low chlorine content in the water</li> <li>• Chlorine and ammonia forming chloramines</li> </ul>

F. Chemical Safety

CHEMICAL	PROBLEMS
Chlorine Gas	<ul style="list-style-type: none"> <li>Leakage could necessitate evacuation of pool, and surrounding area</li> <li>Inhaled fumes can easily cause death</li> <li>Chlorine gas is heavier than air, stays at or near ground level</li> </ul>
Calcium Hypochlorite Lithium Hypochlorite	<ul style="list-style-type: none"> <li>Some types are explosive and flammable when contacted by organic substances such as paper, oil and gasoline; there should be NO SMOKING around these chemicals</li> <li>Used improperly, can cause water to become cloudy</li> <li>Can be fatal if swallowed</li> <li>Can cause severe burns if they get into eyes</li> <li>Chlorine gas is created while burning</li> </ul>
Sodium Hypochlorite	<ul style="list-style-type: none"> <li>Contact with the skin may cause irritation</li> <li>Inhaled fumes can damage lung tissue</li> <li>Can cause severe burns if it gets into eyes</li> </ul>
Bromine (organic)	<ul style="list-style-type: none"> <li>Flammable and explosive; prevent contact with organic materials, NO SMOKING around this chemical</li> </ul>
Test kit Reagents (general)	<ul style="list-style-type: none"> <li>Harmful or fatal if swallowed</li> <li>Harmful to eyes if contacted</li> <li>Ortho-Tolidine (reagent used for chlorine tests) is carcinogenic (cancer causing)</li> <li>Wash hands after using</li> </ul>

#### G. Balance Water (pH Factor)

The single most significant aspect of balanced water is the pH factor. The pH indicates how basic or acidic the pool water is on a scale of 0 – 14. The number 7.0 represents neutral – neither acidic nor basic. Water ranging from 0 – 6.9 is acidic and water ranging from 7.1 – 14 is basic.

A pH level below 7.0 prohibits flocculation, which removes suspended materials from the water, and the proper functioning of sand filters. It can cause corrosion of plumbing, filter tanks, and the heater as well as cause discomfort to the eyes, skin, and mucous membranes. A pH of 7.8 or above reduces the effectiveness of halogen disinfectants (chlorine, bromine, iodine), allows for calcification in sand filters and pool heaters, promotes growth of algae, and causes irritation to the eyes. Attention to the proper pH and other chemical levels will provide for safer operation, more comfortable swimming, and longer pool life.

#### H. pH Range

ACIDIC	0.0	May cause skin and eye irritation
	1.0	
	2.0	
	3.0	
	4.0	
	5.0	
	6.0	
	6.9	
Neutral	7.0	
BASIC	7.1	Acceptable range of water
	7.4	
	7.8	
	8.0	
	9.0	May cause skin and eye irritation
	10.0	
	11.0	
	12.0	
	13.0	
	14.0	

K. Normal Control Levels

<b>pH</b>	<b>7.4 – 7.8</b>
<b>Temperature</b>	<b>85 – 90 degrees F</b>
<b>Free Chlorine</b>	<b>0.6 minimum</b>
<b>Saturation index</b>	<b>-0.5 to +0.5</b>
<b>Calcium Hardness</b>	<b>180 – 250 mg/liter</b>



STATE OF NEW YORK - DEPARTMENT OF HEALTH

INTEROFFICE MEMORANDUM

TO: Regional Directors of Environmental Health  
City and County Directors of Environmental Health  
District Directors

FROM: Dr. Leo J. Hetling, Director  
Division of Environmental Protection

SUBJECT: Acceptable Lifeguard Certifications

DATE: July 22, 1987

Certification and training courses for lifeguards by national organizations has been and are undergoing extensive modification. The Bureau of Community Sanitation and Food Protection will develop an equivalency listing based on specific criteria which soon will be available in the form of a technical reference. In the interim, this memo should be used as guidance to evaluate the acceptability of lifeguard qualifications during 1987. The following courses are now considered as equivalent to Part 6 requirements for acceptable current lifeguard credentials:

1. American Red Cross Advanced Life Savings;
2. American Red Cross Lifeguard Training;
3. American Red Cross Lifeguard Instructor's Certification;
4. YMCA Advanced Life Saving;
5. YMCA Lifeguard;
6. Boy Scouts of America Lifeguard Certification (acceptable only if received in the last three years);
7. Boy Scouts Water Safety Supervisor (acceptable if no more than three years);
8. Canadian Certifications issued by the Royal Life Saving Society, such as "Award of Merit" and the "Distinction Award" are both acceptable if received in the last three years. (The Bronze Medallion and Bronze Cross are not acceptable.)

In addition to the above list, lifeguards who may have received training and certification from the Nassau County Department of Health or the Federal Government National Seashore would also be acceptable.

Finally, all lifeguards must possess Basic Life Support CPR certificates issued during the last 12 months by the American Red Cross or the American Heart Association.

cc: Regional Health Directors/Regional Directors  
Mr. Svenson  
Mr. Gates



February 29, 1988

Superintendents of School Districts

Dear Sir:

RE: School Swimming Pools

The regulation for bathing facilities were recently amended by the State's Public Health Council and will become effective in May. These changes are included in the enclosed copy of Subpart 6-1 of the New York State Sanitary Code and could impact pools in your district.

The Code is effective in May and we expect that every effort will be made to comply with it. However, we will not take enforcement action regarding the new items until the fall except where a direct public health hazard is caused by noncompliance. The following items are required by the new code (several of these items are already required):

1. All pools need to be supervised by a qualified lifeguard(s). Minimum qualifications include CPR and advanced lifesaving training certifications issued by the National American Red Cross or equivalent. Current WSI certificates are also acceptable.
2. Written safety plans must be prepared and implemented. Guidelines are available to assist in preparation of such plans.
3. Diving board use should be evaluated. One meter boards need a properly configured diving hopper with 11 feet of water.
4. Additional poolside safety equipment includes a spine board with extrusion collars and straps and a pocket mask to assist with CPR.
5. Increased injury incident reporting to my office within 24 hours of such incident.
6. An elevated lifeguard chair for each 2,000 square feet of surface area.
7. Pools in excess of 3,000 square feet of surface area or using gas chlorination will be required to have a qualified swimming pool water treatment operator within one year of the effective date of the Code.

If you have any questions, feel free to contact this office.

Sincerely,

Enclosure

cc: NYSHD Regional Directors of Environmental Health





**SWIMMING POOL SAFETY AND EMERGENCY ACTION PLAN  
LIFEGUARDS AND STAFF  
SIGN OFF RECORD**

I, \_\_\_\_\_  
(name)

Have read the Monroe One BOCES Swimming Pool Safety and Emergency Plan in its entirety, understand its contents, and agree to follow all of the safety rules to the best of my ability.

Signature: \_\_\_\_\_

Position/ Title: \_\_\_\_\_

Date: \_\_\_\_\_



## **EMERGENCY TELEPHONE NUMBER LIST**

This notice is to be posted at each telephone in the swimming pool area.

LOCAL AMBULANCE – 911

FIRE DEPARTMENT – 911

POLICE DEPARTMENT – 911

Poison Control Center – (585) 275-3232

Monroe One BOCES Safety and Security  
x 2298

Safety and Security (After School Hours)  
(585) 329-0836

Monroe One BOCES Nurse's Office  
x 6416



## **EMERGENCY TELEPHONE CALL INSTRUCTIONS**

The following information must be provided when telephoning for emergency assistance

**Name of Caller**

**Location of Facility** – Monroe One BOCES Pool address is 41 O'Connor Road, Fairport and  
Is a separate building, next to the main building, east of the main parking  
lot.

**Telephone Number** – (585) 383-2288

**Type of Incident** – (drowning, cardiac arrest, chlorine gas, etc.)

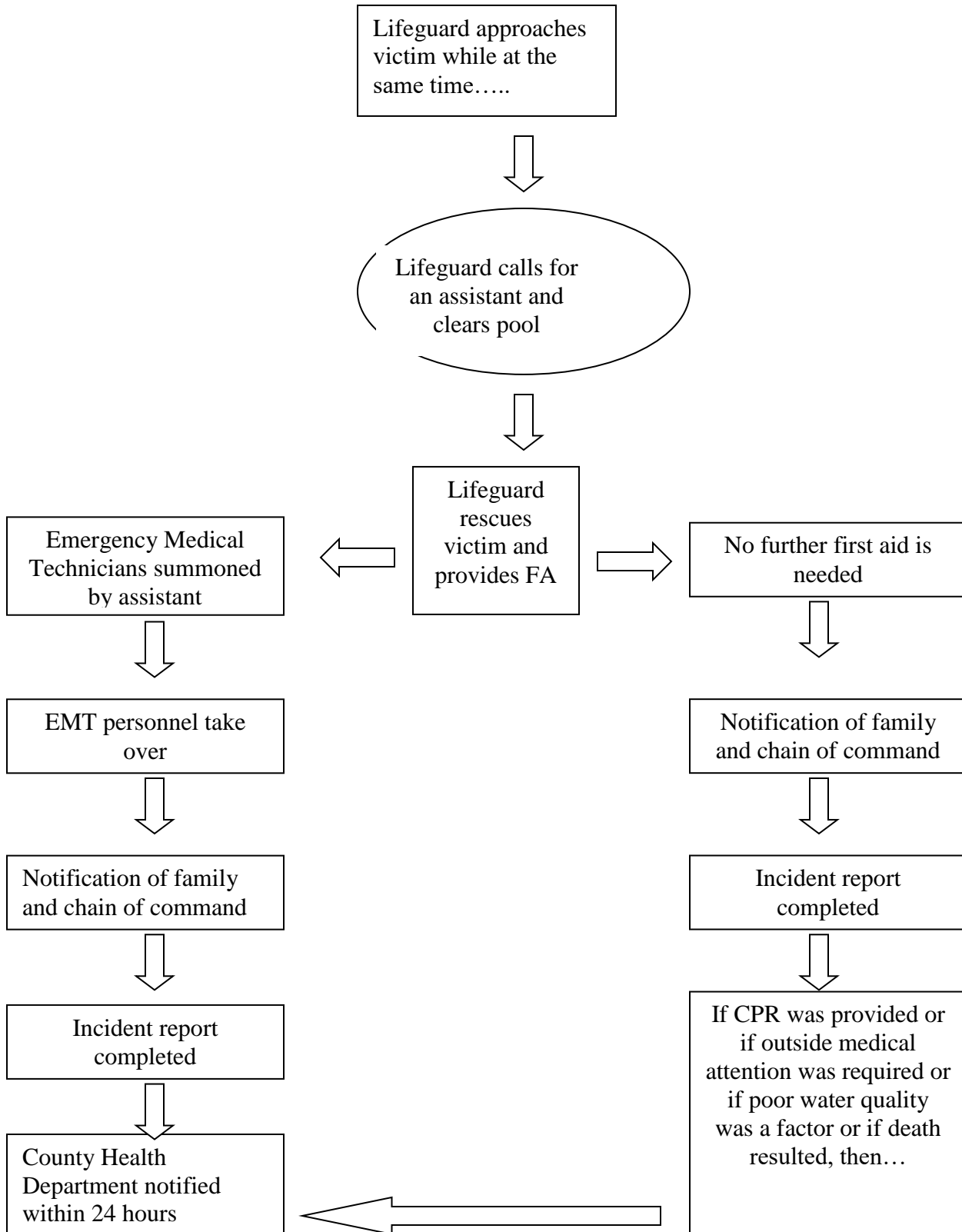
**Required Assistance** – (ambulance, fire, police)

**Approach Route** – enter at the covered sidewalk on the south side of the building

**Advise that someone will be waiting outside.**

**\*\*DO NOT HANG UP THE PHONE UNTIL YOU ARE TOLD TO DO SO.**  
Ask if there is any further information that is needed.

**POOL INCIDENT FLOW CHART**





**Monroe County Health Department  
Water Supply and Pool Section**

## Swimming Pool Injury or Illness Reporting Log

Pool Name: \_\_\_\_\_

Date: \_\_\_\_\_

Lifeguard on Duty: \_\_\_\_\_

Telephone: \_\_\_\_\_

Victim's Name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address:

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Guardian's Name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address:

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Victim's Age: \_\_\_\_\_ Male: \_\_\_\_\_ Female: \_\_\_\_\_

Describe the incident and treatment given:

[illegible]

Time and date of incident: \_\_\_\_\_

Names and phone numbers of witnesses:

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If any of the following occurred, call the Health Department within 24 hours at 274-6057. After hours and weekends call 274-7100, and complete the information below:

1. If CPR was given
2. If death occurred
3. If the victim received professional medical attention in addition to lifeguard first aid
4. If the pool water gave the illness or injury, (for example, the pH was too low and gave skin burns)

If applicable:

Name and telephone number of hospital or clinic where the victim went:

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Name and phone number of emergency medical technicians, police, or fire personnel in attendance:

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Any other comments:

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## Swimming Pool Injury Log

Date	Time	Name and Address	Age	Nature of Incident	Location	Actions Taken

### Swimming Pool Fecal Incident Log

<b>Date:</b>		<b>Time:</b>	
<b>Incident type:</b>	<input type="checkbox"/>	<b>Formed Stool</b>	
	<input type="checkbox"/>	<b>Diarrheal</b>	
<b>Staff Present:</b>			
<b>Swimmers in swimming pool water at time of incident:</b>			
			(use back of page if more room is needed)
<b>Disinfection Response:</b>			
<b>Free Chlorine level Achieved:</b>			
<b>Time Target Free Chlorine Level Achieved:</b>			
<b>Time Backwash completed:</b>			
<b>Date and Time Pool Reopened to Swimmers:</b>			





NEW YORK STATE DEPARTMENT OF HEALTH  
Bureau of Community Environmental Health and Food Protection

## Report on Operation of Swimming Pool

Name of Pool \_\_\_\_\_

at \_\_\_\_\_

(name of city, village or town in which pool is located)

County \_\_\_\_\_

For Month of \_\_\_\_\_ 20 \_\_\_\_\_

Date	Filter Washed Check	Pool Cleaned Check	Total Number of Bathers	Chlorine Used lb./day <input type="checkbox"/> gal./day <input type="checkbox"/> crock <input type="checkbox"/>	Disinfection									Alkalinity mg/l CaCO <sub>3</sub>	pH	Pool Drain Visible Check	Acid <input type="checkbox"/> quarts <input type="checkbox"/> pounds	Soda Ash (pounds)	Other	Remarks
					Residual mg/l			<input type="checkbox"/> Chlorine			<input type="checkbox"/> Bromine									
					1st Test			2nd Test			3rd Test									
					Time	Free	Total	Time	Free	Total	Time	Free	Total							
1																				
2																				
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Source of Water \_\_\_\_\_ \*Pints of \_\_\_\_\_ % chlorine in \_\_\_\_\_ gallons of water

Operator's Signature \_\_\_\_\_

Date \_\_\_\_\_

At the end of each month, mail completed report to:

Please see reverse side for important instructions

## Swimming Pool Disinfection Instructions

1. The swimming pool disinfectant residual must be checked at least three times (3x) a day, especially before and after periods of heavy bathing.
2. The minimum disinfectant residuals to properly disinfect a pool are stated in Section 6-1.11(c) of Subpart 6-1 of the New York State Sanitary Code. Spa disinfectant residuals are stated in Section 6-1.25(c). A summary of the chlorine/bromine residuals are as follows:

For a pH range of 7.2-7.8  
(ideal pH approximately 7.5):

minimum concentration of .6 mg/l free chlorine residuals (spas - 1.5 mg/l free chlorine residual);  
maximum concentration of 5 mg/l free chlorine residual .

minimum concentration of 1.5 mg/l bromine residual (spas - 3.0 mg/l); maximum concentration of 6 mg/l bromine residual.

For a pH range of 7.8 - 8.2:

minimum concentration of 1.5 mg/l free chlorine residual.

**Use of chlorine compounds containing cyanuric acid is not acceptable.**

Chlorine and bromide levels must be measured by the DPD method.

3. The chlorine sample should be taken between the pool inlet and outlet, at approximately a 12" depth.
4. Note in the remarks column any unusual circumstances; i.e., pump failure, reason for pump and filter not operating, testing of ground fault interrupter, if applicable, and cloudiness of pool water, etc.
5. The county or district health department must be immediately notified of any change in equipment, interruption in treatment, loss of water clarity, or serious injury.