



**Aquatic Consulting Services**

1220 Rosecrans Street #915 • San Diego • California • 92106

# Commercial Pool Site Inspection Checklist

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## Pool Inspection Checklist

Pool:  
Inspection Date:  
Address:  
City, State, Zip:  
Phone:  
Aquatic Director:

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<b>Code:</b>	Yes	Yes, complies fully
	No	No, does not comply
	N/A	Not applicable
	?	Unknown, or information was not available

### Water Clarity

- \_\_\_\_\_ 1. A six inch black disk or the main drain grates are clearly visible from any point on the deck surrounding the pool. Water is crystal clear and within 0.25 - 0.5 NTUs.

### Suction Outlets

- \_\_\_\_\_ 1. Multiple (2 or more) main drain grate assemblies are provided.  
Number of drains \_\_\_\_\_
- \_\_\_\_\_ 2. Where multiple pump systems are installed, each system is equipped with multiple suction outlets.
- \_\_\_\_\_ 3. Drains are installed at the deepest point in the pool, to permit the pool to be drained completely.
- \_\_\_\_\_ 4. Anti-vortex drain covers, of a type permitted by the local enforcing agency, and designed to prevent hair entrapment, are installed if there's a single drain or suction outlet.
- \_\_\_\_\_ 5. Drains are installed less than 15 feet from the pool walls, and no more than 30 feet apart, or closer than 36 inches together.

- \_\_\_\_\_ 6. Tamper proof grates are firmly secured with multiple, corrosion resistant fasteners to the bottom of the pool. The grates can only be removed with the use of tools.
- \_\_\_\_\_ 7. Drain grates are not in line with diving boards.
- \_\_\_\_\_ 8. A clearly labeled, emergency pump shut-off switch is installed on the deck within view of bathers using the pool or spa.
- \_\_\_\_\_ 9. The drain cavity depth, or in larger pools, the distance between the grate opening and the suction pipe, is at least 2 inches, or equal to or greater than the diameter of the largest drain pipe.
- \_\_\_\_\_ 10. Grate area is at least 4 times the area of the drain pipe(s) removing water through the grate.  
Pipe diameter \_\_\_\_\_" Pipe area \_\_\_\_\_ in<sup>2</sup> Grate area \_\_\_\_\_ in<sup>2</sup>
- \_\_\_\_\_ 11. The size of openings in the drain grates does not exceed 1/2 inch in the smaller dimension. The shape, design and arrangement of grate openings will not cause the physical entrapment of pool users.
- \_\_\_\_\_ 12. Surface skimmers comply with all applicable requirements of NSF International standards, and are NSF listed. NSF stickers are affixed.
- \_\_\_\_\_ 13. If not interconnected with the main drain lines, skimmers are equipped with equalizer valves.
- \_\_\_\_\_ 14. Skimmer equalizer line openings in the pool side wall are installed 12 to 18 inches below the water level, and are covered with tamper-proof, anti-vortex safety covers (not floor inlet fittings).
- \_\_\_\_\_ 15. Suction drain lines are interconnected at a point midway between the drains. Lines are plumbed with a T-connection designed to prevent suction entrapment.
- \_\_\_\_\_ 16. Water velocity through connected suction drain line plumbing does not exceed 6 feet per second.  
Velocity = (0.32 x flowrate in gpm) ÷ pipe area in square inches

- \_\_\_\_\_ 17. Maximum water velocity across any suction grate does not exceed 2 feet per second. Exception: 6 feet per second velocities are permitted where anti-vortex grates are installed.
- \_\_\_\_\_ 18. Spa hydrotherapy jet piping is not interconnected with spa recirculation system piping. Spa jet piping is plumbed with a T-connection.
- \_\_\_\_\_ 19. Drain grates are inspected daily. The results of the inspection are logged on the daily pool maintenance checklist.
- \_\_\_\_\_ 20. If the grate is worn, broken or missing, or the hardware securing the grate to the bottom of the pool is missing, the pool is closed immediately, and remains closed until repairs are completed.
- \_\_\_\_\_ 21. A Safety Vacuum Release System (SVRS) such as a Stingle-Switch, Vac-Alert, Play Safe Systems; vacuum breaker, or other similar anti-entrapment safety device, which sense a potentially dangerous increase in suction and turns off the pump is installed.

**Pool Surfaces, Equipment & Hardware**

- \_\_\_\_\_ 1. The pool is vacuumed daily or as needed. No settled debris is visible.  
Vacuum type:
- \_\_\_\_\_ 2. The circulation system is properly plumbed to provide uniform distribution of water throughout the pool and prevent hazards.  
Inlet type:  
Inlet number:  
Inlet location:
- \_\_\_\_\_ 3. Sodium fluorescein dye tests or ribbon tests convey a uniform circulation pattern and absence of dead spots.
- \_\_\_\_\_ 4. A hydrostatic relief valve has been installed on in-ground pools in areas where the ground freezes or where high ground water tables may pose a problem.
- \_\_\_\_\_ 5. Algae growth is not visible in the pool. The water is not discolored from an algae bloom.
- \_\_\_\_\_ 6. Coping stones and tile lines are not chipped, cracked or loose.

- \_\_\_\_\_ 7. The pool shell is finished in a smooth but slip resistant, easily cleaned, water tight surface material, white or off-white in color. There are no cracks in the shell except structural expansion joints.
- Pool construction material:  
Surface material:  
Surface color:
- \_\_\_\_\_ 8. The presence of minerals or dissolved metals has not caused surface staining or water discoloration.
- \_\_\_\_\_ 9. Correct water level is maintained to allow for the removal of floating debris and for the continuous overflow of water into the pool gutters or skimmers.
- Skimmers (number):  
Gutters (type):
- \_\_\_\_\_ 10. Skimmer weirs, equalizer lines, skimmer baskets, deck covers, and flow adjustment or anti-vortex control plates are all present and in good repair.
- \_\_\_\_\_ 11. The fresh water fill spout is located so as not to be a tripping hazard. An air gap of at least six inches has been provided between the spout and the pool as a means of backflow protection.
- Water supply source:  
Drought restrictions:  
Fill pipe diameter:  
Backflow prevention:  
Height above surface:
- \_\_\_\_\_ 12. A drinking fountain has been provided within the pool enclosure.
- \_\_\_\_\_ 13. Backstroke flags and support stanchions are placed 15 feet (USS short course, NCAA, NFSHSA) or 16'5" (USS long course, FINA) from each pool edge.
- \_\_\_\_\_ 14. Underwater observation windows are mounted flush with the pool wall. Hardware securing the window frame to the pool wall does not protrude or otherwise pose a hazard to bathers.
- \_\_\_\_\_ 15. All ladders, backstroke flag stanchions, guard chairs, rails and treads, deck plates, and other deck equipment are tightly secured in place.
- \_\_\_\_\_ 16. When stanchions, starting blocks or other pieces of deck equipment are removed, anchor sockets are capped.
- \_\_\_\_\_ 17. Towel and equipment hooks are installed on the walls in a way that does not present a hazard to bathers.
- \_\_\_\_\_ 18. Swim lanes are a minimum of seven, and preferably ten feet wide.
- \_\_\_\_\_ 1.5' of additional open water installed outside first and last lanes
- \_\_\_\_\_ Lane markers are 10 or 12 inches wide
- \_\_\_\_\_ Ceramic tile lane markers have a minimum coefficient of dynamic friction of 0.6
- \_\_\_\_\_ Lane markers terminate 5' or 6'7" from each end wall
- \_\_\_\_\_ Lane lines terminate in a cross line 3' or 3'4" long and either 10 or 12 inches wide
- \_\_\_\_\_ 19. Targets have been provided and are in alignment with swim lanes.
- \_\_\_\_\_ 20. Floating lane lines are secured to the pool with recessed hooks.
- \_\_\_\_\_ 21. Competitive racing lines are stored on a reel when not in use.
- \_\_\_\_\_ 22. The lane line reel is covered and stored off deck.
- \_\_\_\_\_ 23. The competitive timing system and scoreboard are full operational. Allowances in course length were made for space taken up in a swim lane by the touch pads.
- \_\_\_\_\_ 24. Spectator seating areas are physically separated from the pool deck.
- \_\_\_\_\_ 25. Acoustical treatment has been considered in the design of the natatorium. Reverberation time and background noise do not make it difficult to carry on long distance conversations, hear instructions, or listen to information over loud speakers.
- Acoustical quality:  
Design problems:

\_\_\_\_\_ 26. Water slides or flumes are structurally sound, properly installed, and adequately maintained.

### Egress

\_\_\_\_\_ 1. An adequate means of egress from the pool is provided.

\_\_\_\_\_ 2. The pool is handicapped accessible and in compliance with the ADA and barrier free design requirements.

### Movable Floor

\_\_\_\_\_ 1. Movable floors are fully operational, and can be adjusted from the control panel to any desired depth.

#### Floor type:

- \_\_\_\_\_ Reinforced concrete floor
- \_\_\_\_\_ Stainless steel scissor jack floor with PVC planking
- \_\_\_\_\_ Glass fiber reinforced polyester floor operated by a cable system and hydraulic mechanism

Number of stainless steel hydraulic cylinders:

A movable floor is installed over the entire pool:

A movable floor is installed over a portion of the pool, and is used in conjunction with a:

- \_\_\_\_\_ trailing ramp
- \_\_\_\_\_ rolling bulkheads
- \_\_\_\_\_ vertical wall which can be raised and lowered
- \_\_\_\_\_ stainless steel removable fence

\_\_\_\_\_ 2. The slotted PVC edge strip is securely fastened to the concrete floor with stainless steel sheet metal screws and can withstand the forces created when the floor is moved up and down through the water column.

\_\_\_\_\_ 3. Slots in the slotted PVC edge strip are 1/8 inch or less in width.

\_\_\_\_\_ 4. The floor travels at speeds not exceeding 1 foot per minute.

\_\_\_\_\_ 5. The floor can be raised flush with the pool deck and is handicapped accessible.

\_\_\_\_\_ 6. The floor can be raised above deck level for vacuuming or access below.

\_\_\_\_\_ 7. Manholes are built into floor for inspection below.

\_\_\_\_\_ 8. The water soluble lubricant or hydraulic fluid level is checked weekly.

\_\_\_\_\_ 9. Sacrificial anodes installed to protect the stainless steel hydraulic cylinders from corrosion are inspected and replaced yearly.

\_\_\_\_\_ 10. If multiple hydraulic cylinders are installed, the cylinders operate in unison.

\_\_\_\_\_ 11. The floor is perfectly level when in a raised position.

\_\_\_\_\_ 12. Tile is not separating from the concrete floor because of torque resulting from uneven cylinder operation.

\_\_\_\_\_ 13. The variable depth gauge reflects true depth.

\_\_\_\_\_ 14. Permanent depth markings installed on the pool deck and vertical pool wall indicate that depth varies.

### Movable Bulkhead

\_\_\_\_\_ 1. Movable rolling bulkheads, rollers, and grating are in good repair.

\_\_\_\_\_ 2. Bulkhead chambers are inflated with compressed air to achieve adequate buoyancy and are being moved properly to prevent staff back injuries, wear on rollers, and scratching of gutters.

\_\_\_\_\_ 3. If starting blocks are installed on the bulkheads, the bulkheads are capable of supporting the anticipated maximum weight of swimmers, officials, starting blocks and timing equipment during a competitive event.

Number of bulkheads:

Dimensions (length and width) of bulkheads:

Possible course lengths:

Frequency of movement:

## Signage

- \_\_\_\_\_ 1. A current license or permit to operate a public pool is posted in a conspicuous place in the facility.
- \_\_\_\_\_ 2. Emergency phone numbers are posted.
- \_\_\_\_\_ 3. Directions to the facility and other pertinent information to be conveyed to the 911 operator are posted next to the phone.
- \_\_\_\_\_ 4. Pool rules, methods of enforcement, safety literature, and meaningful warning signs are posted.
- \_\_\_\_\_ 5. Depth markings are plainly and conspicuously marked at or above the water surface on the vertical wall of the pool and on the edge of the deck. Markings conform to local and state code as to size, color, and spacing. Depth is marked to indicate feet and inches. Numbers other than those indicating depth have been removed.
- \_\_\_\_\_ 6. Depth markers accurately reflect true depth.
- \_\_\_\_\_ 7. Depth or drop-off lines and/or buoyed life lines are correctly positioned in the pool to indicate sudden changes in slope.
- \_\_\_\_\_ 8. Pool capacity (bather load) signs are posted. Capacity limits are not exceeded.  
Method of determining bather load:  
Maximum bather load:
- \_\_\_\_\_ 9. A contour depth chart is posted next to the pool to help swimmers judge the depth and shape of the pool.
- \_\_\_\_\_ 10. Steps, treads, ramps, ledges or any other protrusion into the pool are marked with a color contrasting coating or tile on both the top and vertical rise.
- \_\_\_\_\_ 11. Appropriate signage and warnings are affixed to the outside of the equipment and chemical room doors.
- \_\_\_\_\_ 12. UFC Standard No. 79-3 hazard identification signs are posted.

- \_\_\_\_\_ 13. Signs are posted instructing bathers on the proper use of saunas, steam rooms or spas, and warning bathers of the hazards associated with their use.

## Pool Blankets and Covers

- \_\_\_\_\_ 1. The pool is covered with insulating pool blankets when not in use.
- \_\_\_\_\_ 2. Safety covers which meet strict performance standards set by the American Society for Testing and Materials in ASTM standard F1346-91 are installed to prevent access to pool or spa water.
- \_\_\_\_\_ 3. Safety covers have a continuous connection between the pool and deck. They are installed in a track, rail or guides, or otherwise locked or secured into the deck.
- \_\_\_\_\_ 4. Safety covers are capable of supporting a 400 lb. per square foot load.
- \_\_\_\_\_ 5. Safety covers bear an identification label indicating the name of manufacturer and installer, and compliance with ASTM safety cover standards.
- \_\_\_\_\_ 6. Safety covers are provided with automatic auxiliary pumps or designed in a way which prevents the accumulation of standing water on top of the cover.

## Barriers

- \_\_\_\_\_ 1. Emergency exit doors are unlocked, and crash bars are operational.
- \_\_\_\_\_ 2. An alarm sounds when an emergency door is opened.
- \_\_\_\_\_ 3. Infrared or light beam alarms have been installed to detect unauthorized entry onto the pool deck.
- \_\_\_\_\_ 4. Pool alarms have been installed to warn of unauthorized entry into the pool.

Alarm type: \_\_\_\_\_ Underwater electronic sensors and medallions  
\_\_\_\_\_ Pressure wave tubes  
\_\_\_\_\_ Floating surface wave motion devices  
\_\_\_\_\_ Sonar devices

- \_\_\_\_\_ 5. All windows, hinged or sliding doors on the building leading directly to the pool have latching devices installed out of the reach of small children, at least 40, and preferably 60 inches above the floor.
- \_\_\_\_\_ 6. If no physical barrier is installed between a dwelling and the pool, resettable alarm is installed on all sliding doors and windows which open to the pool area.
- \_\_\_\_\_ 7. Barriers and fences are installed and maintained in compliance with local codes and industry recommendations in order to lessen unauthorized entry into the pool area, and prevent young children from gaining access to the pool and thereby reducing the likelihood of pediatric submersion accidents.
- \_\_\_\_\_ 8. The facility is fenced or otherwise secured. Fence height:
- \_\_\_\_\_ 9. A barrier is installed between a dwelling and the pool.
- \_\_\_\_\_ 10. Perimeter fences do not block the view of the pool.
- \_\_\_\_\_ 11. If plants such as Pyracantha (firethorn evergreen shrubs) are used on the outside of the fence as an additional barrier, they do not obstruct the vision of the pool from the dwelling.
- \_\_\_\_\_ 12. The fence does not have any external footholds or handholds or horizontal members to make it easy to climb.
- \_\_\_\_\_ 13. The fence is installed in such a way to prevent other objects, building walls or permanent structures from being used to climb into the pool area.
- \_\_\_\_\_ 14. Walls or solid barriers constructed of cement block or brick, if installed, do not contain indentations or protrusions closer than 45 inches apart.
- \_\_\_\_\_ 15. With chain link fences less than 6 feet in height, wire mesh, slats, barbed wire, or other means approved by local building officials is used to prevent the openings in the fence from being used as a climbing surface.
- \_\_\_\_\_ 16. The size of holes in the chain link fence do not exceed 1.75 inches.

- \_\_\_\_\_ 17. There is less than 2 inches of space between the bottom of the barrier and the ground or pool deck.
- \_\_\_\_\_ 18. There are no holes or spaces in the fence where children could slip through.
- \_\_\_\_\_ 19. Vertical members in the barrier are not more than 4 inches apart. A block or sphere 4 inches in diameter cannot pass through.
- \_\_\_\_\_ 20. On ornamental iron fences, the distance between the tops of horizontal members is not greater than 45 inches apart.
- \_\_\_\_\_ 21. A removable baby barrier fence constructed of coated nylon mesh is available to provide additional security.
- \_\_\_\_\_ 22. Gates in the fence or doors open outward away from the pool.
- \_\_\_\_\_ 23. Gates are at least as high as the required height of the fence.
- \_\_\_\_\_ 24. Access gates or doors can be locked when the pool is not in use or supervised.
- \_\_\_\_\_ 25. A key-operated lock, keypad or key card system which is integral to the gate or door is installed.
- \_\_\_\_\_ 26. The locking mechanism is mounted on the inside of the gate, and located at least 4 feet off the ground, and more than 6 inches below the top of the gate.
- \_\_\_\_\_ 27. To prevent access to the latch from the exterior of the gate, the latch is protected by a rigid webbing, shield or plate installed to either side, below, and above the latch to the top of the gate. The shield does not have openings greater than 1/4 inch in diameter.
- \_\_\_\_\_ 28. The gate or door closer is adjusted to allow the gate or door to self-close and positively self-latch from any open position.

#### **Illumination**

- \_\_\_\_\_ 1. All lights are operational, and installed in compliance with the current National Electrical Code, Article 680.

\_\_\_\_\_ 2. A security lighting system is installed in the natatorium. Lights are tested on a regular basis.

\_\_\_\_\_ 3. Glare from natural lighting does not interfere with the ability to see below the surface of the water.

Orientation of pool (direction):

\_\_\_\_\_ 4. Glare from artificial lighting does not interfere with the ability to see below the surface of the water.

Placement and location of lights:

\_\_\_\_\_ 5. The pool area is well lit and sufficient overhead and/or pool lighting is provided. Illumination at the water surface is at least 100 lumens per square foot for indoor pools and 60 lumens per square foot for outdoor pools.

Illumination level: \_\_\_\_\_ footcandles

Bulb type:

Wet or dry niche:

Number of underwater lights:

Wattage of each pool light:

Type of deck lighting:

Number of deck lights:

Wattage of each deck light:

#### Electrical Safety

\_\_\_\_\_ 1. A lockout-tagout kit is available for use by employees. Staff members have been taught that before maintenance or service work is performed, equipment must be "locked out" and tagged, and the lock and tag can only be removed by the employee who put them there [29 CFR 1910.147, OSHA Lockout/Tagout Standard].

\_\_\_\_\_ 2. Ground fault circuit interrupters (GFCI) have been installed on all electrical outlets in the pool, locker rooms, and other wet areas of the facility.

\_\_\_\_\_ 3. Electrical wiring does not pass directly over the pool.

\_\_\_\_\_ 4. Lights, transformers, outlets, junction boxes, connections for timing and sound systems and all other electrical fixtures in and around the pool are installed in compliance with the current National electrical Code, Article 680, or to more strict state or local codes.

\_\_\_\_\_ 5. Ground wires and ground connections have not been disconnected or corroded away from exposure to chemicals and moisture.

\_\_\_\_\_ 6. All metal parts comprising the pool, including, but not limited to, reinforcing bars, ladders, slides, diving boards, starting platforms, filters, pumps, motors, heaters, lifeguard chairs, rails and lights are bonded together and grounded. Bonding provides a second layer of protection so that all interconnected metal equipment is grounded through one master bond wire, eliminating shock hazard from stray currents, voltage gradients or faulty equipment.

\_\_\_\_\_ 7. All receptacles are 10 or more feet away from the pool walls, and all receptacles within 20 feet of the pool are protected by ground fault circuit interrupters (GFCI).

\_\_\_\_\_ 8. Extension cords, even when plugged into a GFCI, are not used to bring an appliance closer than 10 feet to the pool water.

\_\_\_\_\_ 9. All electrical equipment with power supply cords are protected by GFCIs which will interrupt the flow of electricity if the cord is accidentally cut or frayed.

\_\_\_\_\_ 10. Flexible cords attached to electrical equipment do not exceed 3 feet in length.

\_\_\_\_\_ 11. Flexible cords attached to electrical equipment have a grounding type attachment plug.

\_\_\_\_\_ 12. If immersed or exposed to water, flexible cords attached to electrical equipment are "Type SO" or "Type ST" and marked as being water-resistant.

\_\_\_\_\_ 13. Regular household uninsulated extension cords are not used on the pool deck. Only insulated and grounded cords are used.

- \_\_\_\_\_ 14. Electrical devices are kept away from the pool edge, unless the equipment is approved for poolside use. Approved equipment has a third party (UL, NSF International...) certification sticker affixed to the outside of the device, and is double insulated or designed with other precautionary protective devices to prevent electrical shock.
- \_\_\_\_\_ 15. The two buttons on the GFCI receptacles (test button and reset button) are tested on a weekly basis to simulate current leak. A written record of these tests is maintained.
- \_\_\_\_\_ 16. A closure policy has been developed for lightning and severe weather situations.
- \_\_\_\_\_ 17. Evacuation procedures for lightning and severe weather situations have been practiced within the past 6 months.
- \_\_\_\_\_ 18. A lightning detector has been purchased and installed on the premises.
- \_\_\_\_\_ 19. A clearance of 36 inches has been established in front of and to the sides of electrical panels. The area is identified by paint and/or physical hazard tape in compliance with NEC and OSHA requirements. The designated area is clear of obstructions.
- \_\_\_\_\_ 20. Installation and all major electrical repairs of pool equipment has been performed by a qualified and licensed electrician.
- \_\_\_\_\_ 21. An electrical inspection of the facility is conducted yearly by a licensed electrician or electrical engineer. Documentation of satisfactory inspection results is posted.

**Decks**

- \_\_\_\_\_ 1. The deck and all floors leading to the pool are slip resistant and meet minimum friction coefficients (0.6 - 0.7).  
Surface material:
- \_\_\_\_\_ 2. Deck mats, raised grid interlocking tiles, or anti-bactericide runners, if used, are removed daily for cleaning and disinfection.

- \_\_\_\_\_ 3. Decks are clean, disinfected at least twice weekly, and algae free.  
Number of hose bibs:  
Hose bib location:  
Backflow prevention:
- \_\_\_\_\_ 4. Adequate storage space has been provided for wet, dry and secure storage of equipment. Decks are uncluttered. They are not used for storage of teaching or maintenance equipment.
- \_\_\_\_\_ 5. Pool equipment is being properly used.
- \_\_\_\_\_ 6. A minimum of 12 feet of unobstructed deck space is provided where diving boards or starting blocks are installed.
- \_\_\_\_\_ 7. At least 10 feet of deck space separates the swimming pool from the wading pool, spa, or other pool in the same natatorium.
- \_\_\_\_\_ 8. Decks on all four sides of the pool are a minimum of 8 feet wide.  
Minimum deck width: N  
E  
S  
W  
Deck length:  
Deck width:  
Area of deck
- \_\_\_\_\_ 9. Decks are sloped properly to drain, and do not collect pools of standing water.  
Number of deck drains:  
Maximum distance between drains:  
Coved wall bases present:

**Safety & Rescue Equipment**

- \_\_\_\_\_ 1. Fire extinguishers are charged and located throughout the facility.
- \_\_\_\_\_ 2. Rescue equipment including rescue tubes, ring buoys, extension poles, and shepherd's crooks are all in good repair and immediately available for use.
- \_\_\_\_\_ 3. Elevated lifeguard chairs are placed at appropriate locations around the pool deck.



- \_\_\_\_\_ 4. Lifeguard chairs and towers are in good repair and of a safe design. The design of the elevated platform and guard rails conform with OSHA safety requirements as described in 29 CFR 1910.23.
- \_\_\_\_\_ 5. The first aid kit is well stocked and instantly accessible. (Minimum: One 24-unit first aid kit per 2,000 ft<sup>2</sup> of surface area).
- \_\_\_\_\_ 6. A first aid room is provided in compliance with the OSHA 29 CFR 1910.1030 "Occupational Exposure to Bloodborne Pathogens" requirements.
- \_\_\_\_\_ 7. A back board, rigid cervical collars, head immobilizer, and straps are in good repair and immediately available for use. Guards are trained and practiced in current spinal management techniques.
- \_\_\_\_\_ 8. An emergency telephone is located on the pool deck.

**Diving**

- \_\_\_\_\_ 1. Diving is not permitted into areas of the pool less than nine feet deep or where there is less than twenty-five feet of forward clearance.
- \_\_\_\_\_ 2. Starting blocks are located in water at least nine feet deep.
- \_\_\_\_\_ 3. Warning labels are affixed to each starting block.
- \_\_\_\_\_ 4. Starting blocks are removed from the deck except during competition or training for competition.
- \_\_\_\_\_ 5. Use of starting blocks is prohibited unless swimmers are under the direct supervision of an instructor or coach.
- \_\_\_\_\_ 6. Diving board surfaces are slip resistant.
- \_\_\_\_\_ 7. All nuts, bolts, hinges, fulcrum rollers, footwheels, rail mounting devices, band fasteners, and guard rails have been properly maintained and are in good condition.
- \_\_\_\_\_ 8. One and three meter diving boards are located in water at least 12'6" and 13'2" deep respectively.

- \_\_\_\_\_ 9. Spare diving boards are properly stored in a horizontal position to prevent warping and board damage.

- \_\_\_\_\_ 10. All diving boards and platforms are positioned in accordance with state and local codes, recommendations of national certifying agencies, and common and acceptable standards of the industry.

- 1 diving boards (number):
- 3 meter diving boards (number):
- Jump board:
- Platforms (height):
- Dry board training:
- Sparge system in diving well:
- Guard rails:
- Leading edge of guard rails extends past the deck edge:
- Protective netting:
- Type of boards:
- Fulcrum assemblies and footwheels:
- Type of standards:
- Treads (number and spacing):
- Ladder handrail spacing:
- Main drains are at least 5 feet off center from board midpoints:
- Distance between boards:
- Distance between board and side wall:
- Depth of water directly below board:
- Depth 6 feet forward of the board:
- Depth 12 feet forward of the board:
- Depth 18 feet forward of the board:
- Shock absorbing surface material installed on deck below stands:
- Overhead clearance:

**Water Analysis**

- \_\_\_\_\_ 1. The pool manager or operator is certified from a nationally recognized agency, and is knowledgeable in all aspects of pool operation, water chemistry and maintenance.
- \_\_\_\_\_ 2. Pool water is tested at least once every two hours and analyzed at least one hour prior to use by the public.
- \_\_\_\_\_ 3. All water quality and chemicals levels are within acceptable ranges.
- \_\_\_\_\_ 4. A system of regular testing, recording of findings and chemical adjustment of pool water has been implemented.

- \_\_\_\_\_ 5. A daily pool water analysis log is maintained.
- \_\_\_\_\_ 6. Bacteriological water analysis is performed on a regular basis by an independent laboratory as required by code.
- \_\_\_\_\_ 7. Test kits are properly stored and reagents fresh.

Capability of testing:

- |       |                  |       |                   |
|-------|------------------|-------|-------------------|
| _____ | ORP              | _____ | FAC               |
| _____ | TAC              | _____ | CAC               |
| _____ | Cyanuric Acid    | _____ | pH                |
| _____ | Acid/Base Demand | _____ | Total Alkalinity  |
| _____ | Calcium Hardness | _____ | TDS               |
| _____ | Iron             | _____ | Copper            |
| _____ | Nitrates         | _____ | Water Temperature |
| _____ | Air temperature  | _____ | Relative Humidity |
| _____ | Saturation Index | _____ | TAB               |

**Maintenance**

- \_\_\_\_\_ 1. Detailed maintenance checklists for daily opening and closing procedures, and seasonal and long term maintenance are maintained, completed daily and available for inspection.
  - \_\_\_\_\_ Daily checklists
  - \_\_\_\_\_ Preventative maintenance checklists
  - \_\_\_\_\_ Seasonal checklists
- \_\_\_\_\_ 2. Trash containers are covered and emptied as needed.
- \_\_\_\_\_ 3. Markings and graffiti have been removed.
- \_\_\_\_\_ 4. Measures are being taken to prevent infestation by roaches and other unwanted pests.

**HVAC**

- \_\_\_\_\_ 1. Water temperature is maintained within acceptable levels and is appropriate for the primary activities being conducted in the pool.  
Water temperature: \_\_\_\_\_ ° F

- \_\_\_\_\_ 2. Ambient air temperature is comfortable and at least three to seven degrees higher than water temperature.  
Air temperature: \_\_\_\_\_ ° F
- \_\_\_\_\_ 3. Air quality is monitored.
  - \_\_\_\_\_ ppm of chlorine gas present in the air
  - \_\_\_\_\_ ppm of ozone present in the air
  - \_\_\_\_\_ ppm of carbon dioxide present in the air
- \_\_\_\_\_ 4. No unpleasant odors or irritating fumes are discernible.
- \_\_\_\_\_ 5. Sick Building Syndrome complaints have been registered by patrons or employees.
- \_\_\_\_\_ 6. Low humidity levels (50% - 60% Summer, 30% - 50% Winter) are maintained.  
Humidity level (%): \_\_\_\_\_ %
- \_\_\_\_\_ 7. Upon visual inspection, the ceiling over the pool does not show any obvious signs of deterioration.
- \_\_\_\_\_ 8. Fresh air is introduced into the pool area at a rate of 0.5 cfm per square foot of pool and deck area, in compliance with ASHRAE Standard 62-1989 "Ventilation for Acceptable Indoor Air Quality", plus 15-25 cfm for each anticipated bather or spectator.
  - Location of air supply inlets:
  - Location of air returns:
  - Air circulation pattern in the natatorium:
  - Ventilation rate:
  - Natatorium area:
  - Natatorium volume:
  - Number of complete air exchanges per hour:

**Supervision**

- \_\_\_\_\_ 1. A safety orientation is provided to new members or guests before they are permitted to use the pool.

- \_\_\_\_\_ 2. At least two certified lifeguards are in attendance at the pool during all times of operation, at least one of whom is positioned in an elevated guard chair and has no duties to perform other than the close general supervision of participants in water contact activities.
- \_\_\_\_\_ 3. Lifeguards are at least 18 years old.
- \_\_\_\_\_ 4. Lifeguards have passed medical qualification exams and are medically fit, have good eyesight, and are physically able to meet the demands of the job.
- \_\_\_\_\_ 5. Lifeguards and aquatic instructors possess current certifications appropriate to their job.
- \_\_\_\_\_ 6. Lifeguards have adequate pre-service training for the facility.  
 Length of pre-service training:  
 Training agenda:
- \_\_\_\_\_ 7. Lifeguards attend a minimum of four hours per month of in-service training, are qualified and practiced in emergency procedures and other aspects of their job, including use of rescue equipment.  
 Frequency of in-service training:  
 Date of last in-service training:  
 Agenda for last in-service training:  
 Make-up policy:
- \_\_\_\_\_ 8. All lifeguards have reviewed, and are familiar with the contents of the Lifeguard Manual provided by the employer. Lifeguards have signed and confirmed that they fully understand the requirements of the job as explained in the Lifeguard Manual.
- \_\_\_\_\_ 9. Lifeguards are properly dressed and readily identifiable to patrons.
- |                            |                              |
|----------------------------|------------------------------|
| _____ Uniform              | _____ Hat or visor           |
| _____ Sunglasses           | _____ Protected from the sun |
| _____ Whistle              | _____ Rescue tube            |
| _____ Protective equipment |                              |

- \_\_\_\_\_ 10. Lifeguards are alert, rotated to different positions at least once every forty minutes, and are given frequent relief breaks away from surveillance duties.  
 Rotation:
- \_\_\_\_\_ 11. The number of guards and supervisory personnel is adequate for the activities being conducted, age and skill level of participants, the size and shape of the facility, and environmental conditions which might limit their ability to provide necessary supervision.  
 Number of guards on duty at time of inspection:  
 Location of guards on duty at time of inspection:  
 Minimum code requirement for lifeguards:
- \_\_\_\_\_ 12. Supervision is being provided in accordance with the "10/20 Rule"  
 Average scan time over 3 minutes: \_\_\_\_\_ seconds
- \_\_\_\_\_ 13. A randomly selected, on duty lifeguard passed a Hunsucker doll scanning test. The doll was observed at the bottom of the pool within 10 seconds, and brought to the surface within another 20 seconds.  
 Time doll remained at bottom of pool \_\_\_\_\_
- \_\_\_\_\_ 14. Auditing procedures used:  

_____ Stop watch	_____ Videotaping
_____ Hunsucker dolls	_____ Red ball drills
_____ Hand paddle drills	_____ Simulated emergencies
_____ Mannequins	_____ Independent auditors

 Frequency of in-house audits:  
 Frequency of independent audits:  
 Score on last independent audit:
- \_\_\_\_\_ 15. Contractors have indemnified the agency and listed the agency as a separate insured.
- \_\_\_\_\_ 16. Facility rental charges include the cost of providing lifeguards and facility supervisors.
- \_\_\_\_\_ 17. Staff have been trained in special emergency procedures for situations which might arise during programs operated by contractors.

\_\_\_\_\_ 18. A written surveillance plan has been developed. Surveillance was conducted in compliance with the approved plan.

The surveillance plan includes:

- \_\_\_\_\_ How bathers will be supervised: by whom or by what means, and how often
- \_\_\_\_\_ The minimally acceptable pre-requisites established by the agency for age, physical capabilities, water rescue skills, CPR and first aid training for lifeguards
- \_\_\_\_\_ The frequency of re training, in-service training, or testing of employees on simulated responses to emergency situations
- \_\_\_\_\_ If surveillance of the pool area includes use of electronic or remote devices (alarms connected to phone pagers, video cameras, closed circuit TV monitors, or other security system components) in addition to that provided by personnel, the equipment and its operation is described
- \_\_\_\_\_ List of all instructional and warning signs posted at the pool, including the wording of signs explaining emergency procedures or how patrons may obtain assistance in an emergency
- \_\_\_\_\_ The location of the nearest telephone available for use in emergencies
- \_\_\_\_\_ How bather capacity limits will be enforced
- \_\_\_\_\_ How attendants will enforce established facility rules
- \_\_\_\_\_ How more serious incidents or undesirable behavior, including loitering, violent behavior, gang violence, drug trafficking, possession of weapons, disorderly conduct, public drunkenness, profane or obscene gestures, improper or lewd conduct, panhandling, child molestation, forcing unwanted attention on another person, or indecent exposure will be dealt with
- \_\_\_\_\_ What circumstances will bring about expulsion from pool
- \_\_\_\_\_ When police will be contacted for assistance in diffusing an explosive, dangerous or out of control situation

**Pump Room**

\_\_\_\_\_ 1. The doors leading to the equipment room are locked and only accessible to authorized personnel.

\_\_\_\_\_ 2. The surge chamber is properly sized to hold 1 gallon of water for each square foot of pool water surface area.

Minimum surge capacity required: \_\_\_\_\_ gallons  
 Surge tank volume: \_\_\_\_\_ deep x \_\_\_\_\_ wide x \_\_\_\_\_ long  
 \_\_\_\_\_ ft<sup>3</sup> x 7.48 = \_\_\_\_\_ gallons

Type: \_\_\_\_\_ surge chamber    \_\_\_\_\_ balancing tank  
 \_\_\_\_\_ surge trench        \_\_\_\_\_ in-pool surge capacity  
 \_\_\_\_\_ vacuum filter tank    \_\_\_\_\_ in-gutter surge capacity

\_\_\_\_\_ A guard rail is installed around the surge chamber hatch

\_\_\_\_\_ 3. The hair and lint strainer basket is clean of debris. Additional baskets and gaskets or o-rings are provided.

\_\_\_\_\_ 4. Pressurized filter tanks and hair and lint traps are properly sealed.

\_\_\_\_\_ 5. The centrifugal force pump is properly secured to its base, located so as to avoid cavitation, and is operating quietly.

\_\_\_\_\_ 6. The pump is self-priming or located so as to eliminate the need for priming.

\_\_\_\_\_ 7. The recirculation pump is properly sized according to the manufacturer's pump curve.

Influent pressure (psi) x 2.31 = feet of head \_\_\_\_\_ x 2.31 = \_\_\_\_\_  
 Vacuum reading (Hg) x 1.13 = feet of water \_\_\_\_\_ x 1.13 = \_\_\_\_\_  
 Feet of head + feet of water = TDH \_\_\_\_\_ TDH  
 Minimum flowrate (gpm): \_\_\_\_\_ gpm  
 Pump horsepower (hp): \_\_\_\_\_ hp

\_\_\_\_\_ 8. Pipes are not leaking, are properly supported, and do not show obvious external signs of calcification, corrosion or deterioration.

Pipe type: \_\_\_\_\_ PVC 40                    \_\_\_\_\_ Cast iron  
                   \_\_\_\_\_ Copper                        \_\_\_\_\_ Galvanized steel  
                   \_\_\_\_\_ CPVC 80                        \_\_\_\_\_ Stainless steel

\_\_\_\_\_ 9. The flowmeter is operational, accurate and properly located on a return line at operator eye level.

Meter type:  
 Straight length of pipe prior to the flowmeter is > 4 times the pipe diameter \_\_\_\_\_  
 Straight length of pipe after the flowmeter is > 10 times the pipe diameter \_\_\_\_\_  
 Pipe diameter \_\_\_\_\_ inches

\_\_\_\_\_ 10. Rate of circulation is appropriate to meet minimum turnover requirements and to accommodate peak bather loads.

Volume \_\_\_\_\_ gallons  
 Required flowrate \_\_\_\_\_ gpm  
 Actual flowrate \_\_\_\_\_ gpm

Required turnover \_\_\_\_\_ hours  
 Actual turnover \_\_\_\_\_ hours

\_\_\_\_\_ 11. Valves and piping have been provided on multi-filter systems to isolate individual filter tanks for maintenance or repair.

\_\_\_\_\_ 12. Pipes are sized to properly carry water efficiently through the system.

Pumps	Flowrate (gpm)	Pipe diameter (in)	Pipe area (inches <sup>2</sup> )	(0.32 x gpm) ÷ pipe area
Suction	_____ gpm			_____ fps
Discharge				_____ fps

Maximum velocity permitted by code: Discharge pipe: \_\_\_\_\_ fps  
 Suction pipe: \_\_\_\_\_ fps

\_\_\_\_\_ 13. Air pressure relief valves have been installed on all pressure filter tanks.

Manual \_\_\_\_\_ Automatic \_\_\_\_\_

\_\_\_\_\_ 14. The filter tanks are positioned at least 3 feet away from walls or other large system components to allow for accessibility and proper air circulation.

\_\_\_\_\_ 15. Total filter surface area is adequate to meet recommended design flow rates.

Filter type:  
 Filter brand:  
 Filter model:  
 Design flow rate (gpm/ft<sup>2</sup>):  
 Required filter size (ft<sup>2</sup>):  
 Rec. size (ft<sup>2</sup>) + (25%):  
 Filter area per tank (ft<sup>2</sup>):  
 Number of tanks:  
 Total filter surface area (ft<sup>2</sup>):  
 Properly sized:

\_\_\_\_\_ 16. Diatomaceous earth, chemicals or discharged pool water are neutralized, separated, settled or otherwise properly disposed of in accordance with the Clean Water Act, U.S. EPA 40 CFR 122.26: Storm Water Discharge, and local regulations.

\_\_\_\_\_ 17. A clean sight glass or visual outfall of at least three feet has been provided.

\_\_\_\_\_ 18. A sump pit or backwash holding tank has been installed and has been properly sized to prevent water discharged during the backwash process from flooding the filter room.

\_\_\_\_\_ 19. Adequate drainage has been provided in the pump room.

\_\_\_\_\_ 20. Filter media or elements are clean. No channeling, mud ball formation or bridging is evident.

\_\_\_\_\_ 21. All influent and effluent pressure gauges, and vacuum gauges are operational and accurate.

Vacuum \_\_\_\_\_ Hg  
 Influent pressure \_\_\_\_\_ psi  
 Effluent pressure \_\_\_\_\_ psi)

\_\_\_\_\_ 22. Diagrams and operating instructions are posted in the pump rooms.

\_\_\_\_\_ 23. Operating manuals have been obtained from the manufacturers.

\_\_\_\_\_ 24. All piping, filters and components which are part of the mechanical operating system are labeled, tagged or color coded.

\_\_\_\_\_ 25. The pool equipment rooms are clean, and maintained in a safe and acceptable manner, well lit and ventilated.

Cleanliness:  
 Ventilation:  
 Temperature:  
 Relative Humidity:  
 Illumination:

#### Pool Water Heater

\_\_\_\_\_ 1. Pool chemicals and other flammable materials are stored a safe distance from the heater.

\_\_\_\_\_ 2. Adequate clearances have been established between the heater and the equipment room walls.

\_\_\_\_\_ 3. The heater is installed on a level, non-combustible base.

\_\_\_\_\_ 4. The heater is properly sized and maintained.

Type of heater  
Heater size (BTU)  
Intermittent ignition or pilot light  
Temp. maintenance or intermittent heat  
Fossil fuel  
Pool surface area (ft<sup>2</sup>)  
Maximum temperature rise  
Required heater output (BTU/hr)  
Output ÷ heater efficiency = Input  
Properly sized\*

\* Temperature Maintenance - Commercial Pools: \_\_\_\_\_ ft<sup>2</sup> (Pool surface area) x  
15 (Constant that represents the BTUs required to raise water temperature one  
degree per square foot of water surface area) x \_\_\_\_\_ (Desired increase in  
water temperature over ambient air temperature) ÷ \_\_\_\_\_ % (E rating) =  
\_\_\_\_\_ BTUs input

\_\_\_\_\_ 5. The heater is installed downstream of the pump and filter, and  
upstream of chemical injection equipment.

\_\_\_\_\_ 6. Safety devices such as: high temperature limit switch, thermostat, low  
voltage fireman's switch (if a timer is installed), and check valves between  
the filter and heater, and between the heater and chemical injection  
equipment have been installed on the heater to prevent improper  
operation and to eliminate the possibility of patrons being accidentally  
burned by excessively high water temperatures.

\_\_\_\_\_ 7. A copper, stainless steel or CPVC heat sink has been installed  
between the heater and piping.

\_\_\_\_\_ 8. Compensation has been made for variables which reduce  
heater efficiency.

\_\_\_\_\_ Heater size increased by 4% for each 1,000 feet in  
altitude

\_\_\_\_\_ Wind breaks erected near outdoor installations

\_\_\_\_\_ Properly vented to insure combustion and adequate  
exhaustion

\_\_\_\_\_ Heater is installed close to the pool to minimize heat loss

\_\_\_\_\_ 9. An active solar heating system has been installed and is operating  
effectively.

Type: \_\_\_\_\_ Open loop (water)  
\_\_\_\_\_ Closed loop (antifreeze)

Panels: \_\_\_\_\_ flat plate \_\_\_\_\_ flexible plastic  
\_\_\_\_\_ glazed \_\_\_\_\_ unglazed

Collector location \_\_\_\_\_

### Chemical Storage Rooms

\_\_\_\_\_ 1. The pool chemical room has at least 2 exits, and does not open  
out on to the pool deck or to other heavily traveled areas.

\_\_\_\_\_ 2. The chemical room doors are locked and only accessible to  
authorized personnel.

\_\_\_\_\_ 3. The pool chemical rooms are clean, and maintained in a safe  
and acceptable manner, well lit and ventilated.

\_\_\_\_\_ 4. MSDS sheets are posted for all chemicals stored on the  
premises. MSDS stations and a master file have been created.

\_\_\_\_\_ 5. Chemicals are correctly dispensed into the pool.

Injection: \_\_\_\_\_ peristaltic pump \_\_\_\_\_ gas chlorinator  
\_\_\_\_\_ piston pump \_\_\_\_\_ brominator  
\_\_\_\_\_ diaphragm pump \_\_\_\_\_ erosion feeder  
\_\_\_\_\_ slurry pot \_\_\_\_\_ hand feeding

\_\_\_\_\_ 6. Automated chemical controllers are calibrated and operating properly.

Controller brand:  
Model:  
Paper print-out:  
Automatic probe cleaner:  
Conversion charts are not needed:  
Data-voice communications, remote & local log-on:  
Data down loading:

\_\_\_\_\_ 7. Empty or used chemicals storage containers are rinsed and  
disposed of in accordance with manufacturers recommendations.

\_\_\_\_\_ 8. Equipment for containing and cleaning up chemical spills is  
available. Containment dikes, overpacks and chemical clean-up  
gear has been provided.

- \_\_\_\_\_ 9. An emergency telephone or alarm system is installed in the chemical room.
- \_\_\_\_\_ 10. Emergency fresh water drench showers and eye washes are available for use by all persons required to handle chemicals. (ANSI Standard Z358.1-1981, and General Industry Safety Orders)
- \_\_\_\_\_ 11. Personal safety gear, such as goggles, full face shields, splash guard aprons, neoprene gloves, boots, respirators, gas masks, SCBAs, disposable latex gloves, and 1-way CPR pocket masks are available, and staff members have been instructed in their proper use.
- \_\_\_\_\_ 12. Chemicals are properly stored, contained, labeled, transported, and handled in compliance with safe chemical storage practices.

Primary bactericide:  
 Alternative sanitizer – oxidizer:  
 pH adjustment chemical:

Chemical inventory:

gas chlorine	sodium bicarbonate
sodium hypochlorite	calcium chloride dihydrate
calcium hypochlorite	sodium hexametaphosphate
lithium hypochlorite	sequestering agent
trichloro-s-triazinetrione	chelating agent
sodium dichloro-s-triazinetrione	clarifier
sodium bromide	aluminum sulfate
bromo-chloro-dimethylhydantoin	enzymes
oxygen	test reagents
polymeric biguanide	filter cleaners
potassium peroxymonosulfate	diatomaceous earth
sodium carbonate	sodium fluorescein
sodium hydroxide	crystal violet
sodium sesquicarbonate	algacides
muratic acid	defoamer
carbon dioxide	cellulose
sodium bisulfate	cyanuric acid

#### Code Compliance

- \_\_\_\_\_ 1. The facility is in compliance with all state bathing codes. [Health and safety, building, general industry safety, and administrative codes that pertain to the design, construction, maintenance and operation of pools within the state.]
- \_\_\_\_\_ 2. The facility is in full compliance with the Uniform Fire Code,

Article 80: "Hazardous Materials".

- \_\_\_\_\_ 3. The facility is in full compliance with the EPA SARA Title III: "Emergency Planning and Community Right -to-Know Act".
- \_\_\_\_\_ 4. The facility is in compliance with the EPA or Dept. of Agriculture's Pesticide Safety Training requirements (FIFRA).
- \_\_\_\_\_ 5. The facility is in full compliance with OSHA's "Hazard Communication Standard".
- \_\_\_\_\_ 6. The facility is in compliance with the state's Safe Drinking Water and Toxic Enforcement Act.
- \_\_\_\_\_ 7. In compliance with the CA Education Code §10911.5 or its equivalent, all public recreation employees having direct contact with minors have submitted a set of fingerprints to the Department of Justice. A criminal record summary has been furnished and is maintained by the employer in a secure file separate from personnel files.
- \_\_\_\_\_ 8. The facility is in full compliance with the OSHA "Occupational Exposure to Bloodborne Pathogens" [29 CFR 1910.1030] requirements.
- \_\_\_\_\_ 9. The facility is in compliance with the OSHA "Confined Spaces" Regulation [29 CFR 1910.146].

#### Locker Rooms

- \_\_\_\_\_ 1. Locker rooms are adequately sized to provide patrons with a desired level of privacy.

Locker Rooms Provided

- \_\_\_\_\_ Men's locker room
- \_\_\_\_\_ Women's locker room
- \_\_\_\_\_ Boy's locker room
- \_\_\_\_\_ Girl's locker room
- \_\_\_\_\_ Staff locker room
- \_\_\_\_\_ Family changing room

- \_\_\_\_\_ 2. Lockers are provided in adequate numbers to provide storage for anticipated bather loads.

Tier design:

- \_\_\_\_\_ 3. Provisions have been made for the storage of patron valuables, firearms, or other items requiring secure storage.
- \_\_\_\_\_ 4. The locker rooms are adequately illuminated and ventilated.
- \_\_\_\_\_ 5. Locker room maintenance is completed as needed. Sink basins, floors, mirrors, toilet bowls and urinals are cleaned and disinfected daily.
- \_\_\_\_\_ 6. The locker room plumbing has been checked for dripping water or leaks. Showers, faucets and toilets are working and in repair.
- \_\_\_\_\_ 7. A diaper changing area, sanitary bed liners, and a disposal can for soiled diapers has been provided.
- \_\_\_\_\_ 8. Toilet paper, towels, soap and other amenities are available and containers filled.

Amenities:

- |                       |                                  |
|-----------------------|----------------------------------|
| _____ toilet paper    | _____ paper towels               |
| _____ liquid soap     | _____ suit dryers                |
| _____ hair dryers     | _____ scales                     |
| _____ diaper changing | _____ baby seats in stalls       |
| _____ hand dryers     | _____ plastic bags for wet suits |
| _____ towel warmer    | _____ other:                     |

- \_\_\_\_\_ 9. The suit dryers are operational and in good repair.
- \_\_\_\_\_ 10. Benches, chairs and tables are secure and in good repair.
- \_\_\_\_\_ 11. The locker rooms are aesthetically pleasing, and provide a comfortable and pleasant environment.

**Spa**

- \_\_\_\_\_ 1. The spa (15 minute) timer is operational and suitably located so it cannot be reached by a bather sitting in the spa.
- \_\_\_\_\_ 2. An emergency spa pump shut-off switch is installed on the spa deck. The switch is clearly labeled.

**Sauna**

- \_\_\_\_\_ 1. Sauna (30 minute) timers are suitably located on the outside of the rooms, and operational.
- \_\_\_\_\_ 2. The sauna is satisfactorily maintained, and is cleaned and disinfected daily.
- \_\_\_\_\_ 3. A protective wood railing has been installed around the sauna heater.
- \_\_\_\_\_ 4. Doors to the sauna open out. A window has been installed in the door. No locking or latching devices are present.
- \_\_\_\_\_ 5. Subdued lighting, a clock, thermometer, hygrometer and emergency alarms have been installed in the sauna, and are operating properly.
- \_\_\_\_\_ 6. A temperature regulator has been installed to automatically shut off the heat in the sauna when maximum temperature has been achieved.

**Steam Room**

- \_\_\_\_\_ 1. Steam room (30 minute) timers are suitably located on the outside of the rooms, and operational.
- \_\_\_\_\_ 2. The steam room is satisfactorily maintained and is cleaned and disinfected daily.
- \_\_\_\_\_ 3. A safeguard has been installed to prevent bathers from accidentally coming into contact with the steam head.
- \_\_\_\_\_ 4. The steam generator is properly sized for the steam room. (1 bhp or 33,478 BTU or 10 kW per 400 ft<sup>3</sup>)  
 Steam generator size \_\_\_\_\_  
 Room dimensions: Length: \_\_\_\_\_  
                           Width: \_\_\_\_\_  
                           Height: \_\_\_\_\_  
                           Area \_\_\_\_\_ ft<sup>3</sup>
- \_\_\_\_\_ 5. Doors to the steam room open out. A window has been installed in the door. No locking or latching devices are present.



- \_\_\_\_\_ 6. Subdued lighting, a clock, thermometer, hygrometer and emergency alarms have been installed in the steam room, and are operating properly.
- \_\_\_\_\_ 7. A temperature regulator has been installed to automatically shut off the steam in the steam room when maximum temperature has been achieved.

## Pool Water Analysis

**Date**

**Time**

- \_\_\_\_\_ mV      ORP
- \_\_\_\_\_ ppm      FAC
- \_\_\_\_\_ ppm      TAC
- \_\_\_\_\_ ppm      CAC
- \_\_\_\_\_ ppm      Cyanuric acid
- \_\_\_\_\_      pH
- \_\_\_\_\_      Acid/Base demand
- \_\_\_\_\_ ppm      Total alkalinity
- \_\_\_\_\_ ppm      Calcium hardness
- \_\_\_\_\_ ppm      Total Dissolved Solids
- \_\_\_\_\_ ppm      Iron
- \_\_\_\_\_ ppm      Copper
- \_\_\_\_\_ mg/l      Nitrates
- \_\_\_\_\_ mg/l      Nitrites
- \_\_\_\_\_ ppm      Phosphates
- \_\_\_\_\_      Water level
- \_\_\_\_\_      Clarity
- \_\_\_\_\_ °      Air temperature
- \_\_\_\_\_ °      Water temperature



## Pre Inspection

In preparation for the pool facility review, please gather as much of the following information as possible, and either find your as-built plans or prepare diagrams as indicated. Please have the items available when I arrive at your pool to conduct the inspection. If you do not understand what I'm asking you to collect or measure, or you need clarification on any item, please call me. I'll collect whatever information you were not able to gather while I'm on the premises.



Alison Osinski, Ph.D.

1. Draw a diagram of the facility showing the location of each pool in relation to each other and all surrounding buildings. Label each pool and water feature. Label each building and/or room (pool office, women's locker room, men's locker room, family changing rooms, storage closet, pump room, chemical rooms, maintenance closet, first aid room, classroom...). Show the compass direction North on the diagram.
2. Measure the deck: overall length, width, width between pools located on the same deck, and the minimum and maximum width of deck on each side of each pool. If applicable, show the location of all barrier fences, alarms, walls, and gates around the deck. Show the location of deck drains and expansion joints.
3. Draw a diagram of each pool. Label the length and width, and/or diameter of each section of the pool. Show the compass direction North on the diagram. Show the location and measurements of:
  - Lane lines and turning targets
  - Lifelines and drop-off lines
  - Main drains
  - Return inlets
  - Hydrotherapy jets, counter current jets, sparge systems
  - Hydrostatic relief valves
  - Underwater lights
  - Backstroke flags
  - Skimmers or gutters
  - Diving boards
  - Starting blocks
  - Ladders, steps, grab rails and treads, handrails
  - Exercise bars
  - Ramps
  - Handicap access equipment
  - Depth markings
  - Lifeguard chairs
4. Draw a contour depth chart for each pool and label the dimensions: depth, length and slope ratio.
5. Gather your "Sign Book" showing the location, placement, dimensions, size of lettering, colors, materials, wording, photo and regular inspection records of each sign posted at the facility.
6. Prepare a diagram of the pump room. Label the filters, pumps, hair & lint strainers, pipes, surge chambers or balancing tanks, pressure and vacuum gauges, flowmeters, sight glass, separation tanks, backwash holding tanks or sump pits, pH/ORP controllers, chemical injection systems or metering pumps.
15. Prepare a diagram of the chemical storage room(s). Prepare a list of all pool chemicals, and quantities of chemicals, stored on the premises. Gather the MSDS master file.
16. Prepare a diagram showing the location of all duct work. Label air supply and exhaust vents. Draw arrows showing the air distribution pattern in the natatorium.
17. Gather information on the HVAC system, and air quality performance standards that were specified.
18. Compile incident reports or complaints that have been filed by staff members or patrons relating to the air or water quality in the natatorium.
19. Gather results of any facility audits conducted over the past 3 years.
20. Photocopy the current State and/or County codes under which you're operating.
21. Locate a copy of the "as built" plans for the pool.
22. Gather the daily chemical and maintenance logs for the last 3 months.
23. Please have keys available to access all areas of the facility.
24. Contact your municipal water authority about the source of water used to fill your pools, continuing water quality problems, filtration and water treatment methods, and additives to the water supply. Are any drought restrictions in force?
25. Complete the attached information sheets.

Flumes, and other water play features  
Emergency pump shut off-switches  
Emergency phones, buzzers, E-switches  
Drinking fountains  
Hose bibbs  
Fill spouts and water level devices  
Bulkheads  
Movable floors



# Aquatic Consulting Services

1220 Rosecrans Street #915 • San Diego • California • 92106

## Commercial Pool Pre-Inspection Information

Pool:  
 Facility:  
 Address:  
 City, State, Zip:  
 Phone:  
 Aquatic Director:

**Note:** Please complete 1 checklist for each pool or spa within a facility.

Pool shape	
Location (indoors or outdoors)	
Pool length	
Pool width	
Minimum depth	
Maximum depth at main drain	
Pool area <5' deep (ft <sup>2</sup> and %)	
Pool area >5' deep (ft <sup>2</sup> and %)	
Water surface area (ft <sup>2</sup> )	
Maximum bather capacity	
Average daily bather load	
Primary purpose or use of pool	
Volume (gallons)	
Weight of water in the pool (volume in gallons x 8.33 = lbs)	
Altitude (feet above sea level)	

Earthquake zone	
Pool construction materials (gunite, shotcrete, poured concrete, aluminum, stainless steel...)	
Pool surface materials and colors (plaster, reinforced PVC, tile, fiberglass, paint, exposed aggregate...)	
Year built	
Year renovated	
Orientation of the pool along length (degrees and cardinal points)	
Deck length (feet and inches)	
Deck width (feet and inches)	
Minimum deck width on each side of pool	
Deck width between pool and adjacent pool or spa	
Pool deck area (- pool area)	
Deck surface material	
Deck drains (type, number, spacing)	
Is pool water disposed of to a sanitary sewer, storm sewer, or body of water...?	
Is water neutralized or pre-treated prior to disposal?	
Illumination level in footcandles	
Perimeter overflow system type (gutters, skimmers, water-to-waste...) style (fully recessed, rimflow, roll-out...)	
Lane lines (number, length, spacing between lanes)	
Required flowrate (gpm)	
Actual flowrate recorded (gpm)	
Flowmeter (type, pipe diameter, straight pipe length before meter, straight pipe length after meter)	

Turnover required (hours)	
Actual turnover time (hours)	
Filter (media type, number of tanks, size in ft <sup>2</sup> of each tank, design flow rate in gpm/ft <sup>2</sup> , total filter surface area in ft <sup>2</sup> )	
Filter pressure relief valves (type - manual or automatic)	
Circulation pipe (type, diameter of suction pipe, diameter of discharge pipe)	
Pumps & motors (horsepower, phase, self priming or flooded suction)	
Total dynamic head (TDH = discharge pressure x 2.31) + (suction vacuum x 1.13)	
Water heaters: type (fossil fuel, solar, heat exchangers...) electronic ignition or pilot light maximum temperature rise heater output (BTU/hr) efficiency rating heater input (BTU/hr)	
Inlets (number, location of inlets, spacing between inlets)	
Main drains (number, grate dimensions, drain pipe diameter in inches, spacing between adjacent grates, distance to pool walls)	
Hydrostatic relief valves (number, location)	
Means of egress	
Pool blankets (type and thickness)	
Shade structures (% of pool coverage)	
Water features in pool (list)	
Play features in pool (list)	

Underwater lights (number, bulb type, wattage, wet or dry niche)	
Movable floor (dimensions)	
Movable bulkheads (number, dimensions, possible pool configuration)	
Diving boards (number, height above the water, distance between boards, distance to nearest pool wall, type of board, type of standards, number and spacing of treads, ladder handrail spacing, handrail diameter, number and height above board of guard rails, type of fulcrum assembly and footwheel, fulcrum adjustable over how many inches, distance board extends over the pool, distance guard rails extend past the edge of the pool, length and width of board, depth of water directly below board, depth of water 18' forward of board, overhead clearance; protective netting, surface materials or devices installed on or below the boards)	
Diving platform (height)	
Starting blocks (number, depth of water below)	
Competitive timing system (type)	
Safety and rescue equipment (list)	
Lifeguard chairs (number, whether permanent or portable)	
Pool vacuum (type, frequency of vacuuming)	
Surge chamber (type and capacity in gallons)	
Air temperature maintained	
Relative humidity maintained	
Percentage of fresh air supplied	
Ventilation rate in the natatorium	
Number of complete air exchanges per hour in the natatorium	

Type of air handling system (forced air, closed loop energy recovery, windows, open roof)	
Is an energy recovery system used to supplement the pool water heater?	
Primary sanitizer - oxidizer	
Secondary sanitizer – oxidizer	
ORP level maintained (in mV)	
Primary pH adjustment chemical	
Water temperature maintained	
List all chemicals commonly used for pool water treatment	
List all products used for cleaning or disinfecting pool decks	



# Aquatic Consulting Services

1220 Rosecrans Street #915 • San Diego • California • 92106

## Natatorium Air Analysis

Pool:  
 Facility:  
 Address:  
 City, State, Zip:  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_  
 Aquatic Director/Owner:

Pool water temperature: \_\_\_\_\_ ° F

How is pool water heated (stand alone natural gas pool water heater, heat exchanger, boilers or steam heat - building heating system, solar panels, geothermal, combination)?

Air temperature: \_\_\_\_\_ ° F

Is water temperature maintained consistently 1 – 3 ° F above water temperature?

Relative humidity: \_\_\_\_\_ %

Is relative humidity maintained consistently between 40% and 55%? How often does relative humidity exceed 60%?

Primary area of programming:

Year pool was built: \_\_\_\_\_

Is the pool located indoors, outdoors, or indoor/outdoor?

Is the pool covered with a blanket at night or when not in use for a period of 2 or more hours?

Is a monomolecular film added to the pool water to reduce evaporation and chemical and heat costs?

Pool dimensions, volume, and water surface area:

Pool construction and surface materials:

What type of perimeter overflow system is utilized (skimmers, gutters, water-to-waste...)? How many skimmers are installed in the pool? Describe the gutter design (fully recessed, partially recessed, roll-out, rimflow).

Surge chamber, balancing tank, or surge trench (type and capacity in gallons):

What percentage of water is drawn off the water surface vs. bottom outlets? Is this percentage altered during breakpoint chlorination?

Location and number of return inlets:

Is the pool operated year 'round? If not, what is the length of the operating season: \_\_\_\_\_ days

Hours of operation: \_\_\_\_\_ per day

Average daily bather load: \_\_\_\_\_ users per day

Pool water volume: \_\_\_\_\_ gallons

Bather load to water volume ratio: \_\_\_\_\_ gallons ÷ \_\_\_\_\_ bathers/day = \_\_\_\_\_

Dilution rate: \_\_\_\_\_ gallons of water are intentionally replaced per day

Frequency of completely draining and refilling the pool: \_\_\_\_\_ days

Flowrate: \_\_\_\_\_ gpm      Turnover time \_\_\_\_\_ minutes

Gallons of water circulated per day: \_\_\_\_\_ gpm x 24 hours x 60 minutes = \_\_\_\_\_ gpd

Total filter surface area: \_\_\_\_\_ ft<sup>2</sup>      Filter media:

Controller set points: \_\_\_\_\_ mV ORP      \_\_\_\_\_ pH

Chemical treatment (complete attached water analysis forms):

Sanitizers – oxidizers used:

pH adjustment chemical:

Other chemicals used:

List all products used for cleaning or disinfecting pool decks:

What sanitizer residual in ppm is typically maintained in order to achieve a 750 mV ORP in the pool?

Are any additional pieces of equipment installed on the pool such as nanofilters, GAC filters, or water treatment systems (ionizers, ozone generators, chlorine generators, UV light...)? If so, please state the size of system components.

Are water samples gathered from the pool for bacteriological analysis? How often? What tests are being conducted? Have any recent tests been positive?

Did the results of the most recent circulation system dye test conducted indicate any problem with the circulation pattern or the presence of dead spots in the pool?

Are thermal environmental temperatures acceptable to 80% or more of primary/priority facility users?

Are drafts, stratification of air, thermoclines or temperature gradients evident?

Is the air velocity in area from deck level to 8' above the deck less than 25 feet per minute? Is the air velocity in spectator seating areas cooler and in the range of 40 – 50 fpm?

List sick building syndrome problems reported:

List facility deterioration resulting from maintenance of high relative humidity levels and inadequate exhausting of chemically laden air:

Are there any water features installed that agitate water or aerosolize water vapor, particulates, or pathogenic organisms? Please list.

Are there any discernible odors in the natatorium?

Are non chlorine oxidizers (potassium peroxymonosulfate) being used to shock the pool water? Is a residual maintained?

Are there any problems with completely oxidizing organic contaminants or reaching chlorine breakpoint? How long does it take to reach breakpoint? What chlorinated compound is being used for superchlorination? How is the amount of chlorine used for superchlorination calculated? How is the chemical introduced into the pool?

Describe the type of air handling system installed (forced air, closed loop energy recovery, open windows and doors...):

What percentage of fresh air is introduced? What is the minimum percentage of fresh air required by local code? (Recommended minimum 40%, maximum 100% depending on usage patterns, natatorium design, and equipment installed)?

**Fresh air supplied:**

$(0.5 \text{ cfm} \times \text{_____ ft}^2 \text{ of facility area} = \text{_____ cfm}) + (15 \text{ cfm} \times \text{_____ maximum bather capacity} = \text{_____ cfm}) = \text{_____ cfm required}$

$(0.5 \text{ cfm} \times \text{_____ ft}^2 \text{ of facility area} = \text{_____ cfm}) + (25 \text{ cfm} \times \text{_____ maximum bather capacity} = \text{_____ cfm}) = \text{_____ cfm recommended}$

Designed to bring in \_\_\_\_\_ cfm of fresh air (from specifications)

Actually introduces \_\_\_\_\_ cfm of fresh air (from test, adjust and balance report)

**Total** air circulated: \_\_\_\_\_ cfm (from test, adjust and balance report)

Fresh air \_\_\_\_\_ cfm is \_\_\_\_\_ % of the \_\_\_\_\_ cfm total air circulated

**Required** cfm \_\_\_\_\_ ÷ **total** cfm \_\_\_\_\_ = \_\_\_\_\_ % outside air

**Recommended** cfm \_\_\_\_\_ ÷ **total** cfm \_\_\_\_\_ = \_\_\_\_\_ % outside air

**Air exchanges:**

Natatorium volume:

\_\_\_\_\_ ' length x \_\_\_\_\_ ' width x \_\_\_\_\_ ' average ceiling height = \_\_\_\_\_ ft<sup>3</sup>

\_\_\_\_\_ **total** cfm x 60 minutes/hour = \_\_\_\_\_ cfm

\_\_\_\_\_ cfm ÷ \_\_\_\_\_ ft<sup>3</sup> = \_\_\_\_\_ air exchanges/hour

Are there at least 8 complete air exchanges per hour in the natatorium?



**Pressurization:**

\_\_\_\_\_ cfm supplied (from test, adjust and balance report)

\_\_\_\_\_ cfm exhausted (from test, adjust and balance report)

Is a slightly negative or positive air pressure maintained in the natatorium? (Note: Pollutants travel from positive to negative pressure areas. Natatoriums should be positively pressured in relation to the out of doors, and negatively pressured in relation to surrounding occupied spaces).

Describe the location and placement of supply registers and return/exhaust ducts? Is air supplied low and exhausted high, or vise versa?

Is ductwork aluminum, fiberglass, galvanized, or other? Is it painted with a suitable coating? Is it double walled?

Describe the ceiling over the pool. For instance: Is it flat, peaked, angled or dome shaped? Are beams exposed or covered by drop ceiling panels? Is the ceiling made of wood, concrete, aluminum, or epoxy coated steel?

Results of any smoke or fog tests conducted:

Results of volumetric pump tests of air samples taken 6" above the water surface:

Chlorine gas \_\_\_\_\_ ppm (0.5 ppm TLV)

Chloroform \_\_\_\_\_ ppm (10 ppm TLV)

Carbon dioxide \_\_\_\_\_ % (5,000 ppm = 0.5% TLV)

Ozone \_\_\_\_\_ ppm (0.1 ppm)

Is air quality monitored regularly?