

**WASHOE COUNTY HEALTH DISTRICT  
PUBLIC BATHING AND PUBLIC SPA  
FACILITY FIELD INSPECTION GUIDE**

WASHOE COUNTY HEALTH DISTRICT  
ENVIRONMENTAL HEALTH SERVICES



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December 10, 2018

Dear Pool Operators,

The Washoe County Health District is dedicated to improving the quality of life and ensuring the public health and safety for all residents and visitors of the County, through education, surveillance, enforcement and community service.

The Washoe County Health District is required to perform two routine inspections per year at all pools and spas. A new inspection form has been designed to align those inspections with a risk based inspection program. This field guide has been developed to ensure all inspections follow a risk based methodology and a consistent enforcement of regulations. This field guide also allows all pool operators to prepare for and succeed in your inspections by clearly outlining the regulations in an easy to understand format.

The Washoe County Health District Environmental Health Services Division is available to assist you with this process. Please call (775) 328-2434 or email [healthEHS@washoecounty.us](mailto:healthEHS@washoecounty.us) with any questions.

## INTRODUCTION

The Washoe County Health District is dedicated to improving the quality of life and ensuring the public health and safety for all residents and visitors of the County, through education, surveillance, enforcement and community service.

It is the responsibility of the Washoe County, Environmental Health Services Division to conduct routine inspections of public bathing facilities and spas in Washoe County in order to ensure compliance with the Nevada Revised Statutes and the Nevada Administrative Code. This Field Inspection Guide is intended to provide guidance to operators in matters related to pool and spa inspections and common terminology. This guide has also been developed to improve standardization among environmental health specialists during their routine inspections of pool and spa facilities by providing them with a reference list of common violations.

The procedures outlined in this field guide are to be used in conjunction with the Washoe County pool and spa facility inspection report. The guidelines provided are not intended to be all-inclusive due to the fact that individual facilities and the severity of their violations can vary greatly.

### POOL / SPA INSPECTION FORM MARKING PROCEDURES

For each item on the inspection report form, the inspector should indicate one of the following for **compliance status**:

**IN – Item found in compliance**

**OUT – Item found out of compliance**

**NA – Item is not applicable for the facility**

For each item marked OUT, a determination of the seriousness of the observation must be made with regards to the direct impact on the health and safety of the public and the inspector should indicate one of the following to categorize the out of compliance status:

**Critical Violations** – A critical violation is one that presents a substantial health or safety hazard. Under NAC 444.542 and 444.302, the health authority may order the suspension of an operating permit, and/or order the owner or operator of the facility to prohibit persons from using it if they find:

1. A failure of equipment, structure, area or enclosure which endangers the health or safety of the persons using the facility.
2. That the facility lacks properly functioning equipment or proper materials for recirculating, treating or testing the water.
3. That the operator is not maintaining the required water quality.
4. If the operator does not possess a valid permit.

**Non-Critical Violations** – Are violations of the Nevada Administrative Code that do not constitute a substantial health or safety hazard.

**If the item is marked OUT, document details of each violation for the item number in the "Observations and Corrective Actions" section of the inspection report.**

# COMMON TERMINOLOGY

**Activity pool** means a water recreation attraction that has water-related activities such as rope ladders, rope swings, cargo nets and other similar activities designed primarily for bathers other than small children.

**Air induction system** means a system activated by a separate air power unit or blower which forces air into hollow ducting built into the spa floor, bench or other part of the spa.

**Anti-entrapment (anti-vortex) / VGB** means a drain cover and/or device that prevents the entrapment of a bather to the main drain or suction, such as a Stingl, Vac Alert, Emotron, SVRS pump, channel drain or dual main drains at or greater than the required separation.

**Approved** means acceptable to the health authority based upon a determination concerning conformance with appropriate standards and good public health practices.

**Artificial swimming lagoon** means an artificial body of water with more than 20,000 square feet of water surface area that is intended to be used by persons for swimming or bathing and that is constructed with special features to imitate a natural bathing place.

**Bather** means any person using the pool/spa and adjoining deck area for the purpose of therapy, water sports or related activities.

**Child amusement lagoon** means a water recreation attraction that has water-related activities such as small slides, shallow pools, children washes and other similar activities designed primarily for use by small children.

**Deck** means the area around the perimeter of a public bathing or swimming facility, adjacent to the water, which is used primarily by bathers.

**Flume** means a device designed to provide a descending ride into a splash pool or slide runout at the base of a water slide. Friction on the bed of the flume is minimized in all designs by providing a flowing film of water.

**Health Authority** means officers and agents of the health division or the local boards of health.

**Hydrojet** means a fitting which blends air and water creating a high velocity turbulent stream of air and water.

**Isolation and flotation tank** means a tank that provides a light- and sound-free environment; and contains a saturated solution of sodium chloride or magnesium sulfate having a specific gravity of 1.27 to 1.3 and maintained at a temperature of approximately 93.5°F (34.1°C).

**NSPF means the National Swimming Pool Foundation and is** the organization that oversees the certification of pool operators.

**Natural bathing place** means any bathing place at a lake, pond, stream or similar body of water, together with any buildings and appurtenances: Used by the public for bathing or swimming with the express permission of the lessee or any person responsible for the premises; or openly advertised as a place for bathing or swimming by the public.

**Nonslip surface** means a surface which is designed to reduce or prevent slipping of bare feet.

**Pool** means any swimming pool or any structure within a public bathing or swimming facility containing an artificial body of water.

**Pool enclosure** means the area inside of the fence or barrier surrounding a public bathing or swimming facility.

**Public bathing or swimming facility** means any: artificial swimming lagoon; isolation and flotation tank; mineral bath, therapeutic pool or similar facility; special purpose pool; spray pool; swimming pool; wading pool; or water recreation attraction, that is used by the public for swimming or bathing. The term does not include any facility at a private residence controlled by the owner of the residence, the use of which is limited to members of the family or invited guests of the owner.

**Public spa** means any spa operated by any person, whether owner, lessee, operator, licensee or concessionaire, for the use of the public or the membership of an organization, whether or not a fee is charged for its use. The term does not include spas at single-family private residences which are controlled by the homeowner, the use of which is limited to swimming or bathing by members of the family or invited guests.

**Remodel** means to replace all or part of any structure, circulation system or appurtenance of a public bathing or swimming facility or to modify it to the extent that its design, configuration or operating characteristics differ in any respect from those of the original. The term does not include normal maintenance and repair or the replacement of equipment that has previously been approved unless the result of the maintenance or repair is that the type, size or operating characteristics of the equipment are substantially different from those of the original.

**Slide runoff** means a shallow flume at the end of a water slide in which the bather ends his slide.

**Slip resistant** means a finish or textured surface designed to prevent or reduce slipping by bare skin in contact with it under wet conditions.

**Spa** means a pool primarily designed for therapeutic use which is not drained, cleaned or refilled for each user. The term includes units which employ hydrojet circulation, hot water, cold water, mineral water, air induction system or combinations of them.

**Special purpose pool** means a swimming pool that is used exclusively for supervised instruction, training, therapy, treatment or competition.

**Spray pool** means a recreation area intended for use by children, in which water is supplied by a system of sprays but is not allowed to accumulate.

**Swimming pool** means any structure containing an artificial body of water that is intended to be used collectively by persons for swimming or bathing, regardless of whether a fee is charged for its use. The term does not include: (a) Any structure at a private residence controlled by the owner of the residence, the use of which is limited to members of the family or invited guests of the owner; or (b) Any other kind of public bathing or swimming facility.

**Turnover rate** means the period of time required to circulate a volume of water equal to the capacity of the public bathing facility.

**Wading pool** means a small pool to be used mainly by non-swimming children, and those supervising the children.

**Water recreation attraction** means any activity pool; child amusement lagoon; water slide; watercourse ride; or wave pool. The term does not include any facility at a private residence controlled by the owner of the residence, the use of which is limited to members of the family or invited guests of the owner.

**Water slide** means a water recreation attraction having one or more flumes.

**Watercourse ride** means a water recreation attraction designed to convey bathers on inner tubes or raft-like devices, using an artificially created current, along a relatively flat watercourse.

**Wave pool** means a water recreation attraction characterized by the artificial generation of waves at one end of a pool.

**Wet deck area** means the four (4) foot wide unobstructed area outside a spa's or pool's water perimeter, curb, diving boards, diving towers or pool sides.

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# CONSTRUCTION & MAINTENANCE

## 1: Physical facilities and equipment room(s) properly constructed, installed, maintained

**Statute/Code Regulations:** NAC 444.110, 444.112, 444.114, 444.116, 444.120, 444.122, 444.156, 444.164, 444.166, 444.168, 444.188, 444.195, 444.1952, 444.1954, 444.1956, 444.1958, 444.196, 444.1962, 444.1964, 444.1966, 444.1968, 444.198, 444.1985, 444.1995, 444.199, 444.200, 444.202, 444.204, 444.207, 444.224, 444.228, 444.242, 444.436, 444.438, 444.440, 444.452, 444.472, 444.477, 444.494, 444.512

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|----------------------------|--|
| <b>Critical Violations</b> | <ul style="list-style-type: none"> <li>• Pool/spa is not painted white or light pastel.</li> <li>• Amusement devices in activity pools broken, no longer smooth and easily cleanable, or present a hazard to bathers.</li> <li>• In a watercourse ride, handrails or steps protrude into the watercourse.</li> <li>• Water slides cracked, broken, or otherwise not structurally sound.</li> <li>• Design on bottom of pool not pre-approved, or obstructs the detection of algae, sediment or a person in distress.</li> <li>• Facility side walls or bottoms not constructed of materials which are inert, nontoxic to man, impervious or permanent.</li> <li>• Pump room observed with standing water that creates a hazard.</li> </ul> |
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|--------------------------------|---|
| <b>Non Critical Violations</b> | <ul style="list-style-type: none"> <li>• Facility subject to drainage from surrounding area.</li> <li>• Shape of facility inhibits water circulation.</li> <li>• Solid barrier in diving section or between various depths.</li> <li>• Facility side walls or bottom are not water tight.</li> <li>• Cracks observed in side walls or bottom of facility, making them not smooth or easily cleanable.</li> <li>• Side walls or bottom are not slip resistant.</li> <li>• Slope is not uniform or does not lead to the main drain.</li> <li>• Slope of spa floor exceeds 1 foot of fall in 12 inches.</li> <li>• Wood used in or around bathing facility.</li> <li>• Indoor facility not properly ventilated.</li> <li>• Pumps or other equipment not installed in protective enclosure.</li> <li>• Spray pool has water accumulation.</li> <li>• Natural bathing places have pollution, debris or sludge accumulation.</li> </ul> |
|--------------------------------|---|

**Corrective Action:**

If a critical violation is noted, the permit shall be suspended. A reinspection is required.

**Marking Instructions:**

**In:** Bathing facility and equipment rooms properly constructed and maintained.

**Out:** Bathing facility or equipment rooms not properly constructed or maintained.

**N/A:** May not mark this section N/A.

**Notes:**

**CONSTRUCTION & MAINTENANCE**

**2: Depth markers: visible, adequately located**

**Statute/Code Regulations:** NAC 444.118, 444.1942, 444.246, 444.434

<b>Critical Violations</b>	
<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>• Depth markers are less than 4 inches in height.</li> <li>• Depth markers are not clearly visible / not in a contrasting color.</li> <li>• Pools: markers not on all sides of the pool and spaced more than 25 feet apart.</li> <li>• Spas: markers farther than 18 inches of edge, less than 2 markers present, maximum depth not marked.</li> <li>• Water recreation attraction has no maximum depth signs.</li> <li>• In a natural bathing place, no signs to indicate areas of excessive depth.</li> </ul>

**Corrective Action:**

**Marking Instructions:**

**In:** Depth markers clear, appropriate size and placement.  
**Out:** Depth markers missing or worn, inappropriate size or placement.  
**N/A:** May not mark this section N/A.

**Notes:**

## CONSTRUCTION & MAINTENANCE

### 3: Diving areas: adequate area, proper construction of diving board

**Statute/Code Regulations:** NAC 444.122

**Critical Violations**

- Unapproved diving board installed.

**Non Critical Violations**

- Diving area not divided from main swimming area.
- Less than adequate depth provided under the diving board.
- Diving boards/platforms are greater than 3 meters high.
- Diving board/platform lacks a slip resistant finish.
- Less than 16 feet of vertical clearance above a diving board/platform.
- No handrails provided for stairs leading to a diving board/platform.
- Stairs or ladders are loose or do not have slip resistant finish.

**Corrective Action:**

**Marking Instructions:**

**In:** Diving board/platform is safe, has slip resistant finish and is divided from main area.

**Out:** Diving board/platform lacks structural integrity, is not divided from main area.

**N/A:** This section may be marked N/A if facility does not have a diving board.

**Notes:**

A pool permit that was issued before January 16, 1996 must “contain an adequate area and a depth of water to provide safe diving”. A pool permit that was issued after January 16, 1996, must comply with Article IV of the American National Standard for Swimming Pools: ANSI/NSPI-1 1991.

## CONSTRUCTION & MAINTENANCE

### 4: Steps, ladders, handholds, handrails: adequate, proper construction, color contrast

**Statute/Code Regulations:** NAC 444.128, 444.130, 444.442, 444.444, 444.446, 444.448, 444.450

**Critical Violations**

- Coping around edge (handhold) is missing.

**Non Critical Violations**

- Ladders observed with corrosion or without slip resistant treads.
- Handrails are loose.
- Ladders or stairs missing handrails.
- Stephole treads not sloped to drain into pool/spa.
- Steps are broken or cracked.
- Coping around edge is broken or cracked.
- Pool: stairs or ladders not provided at shallow and deep portions of the pool.
- Spa: a spa more than 3 feet, 6 inches deep does not have handholds (such as a seat ledge)
- Spa: a spa more than 2 feet deep without steps, ladders or recessed treads.

**Corrective Action:**

Pool permit may be suspended if coping is missing and unable to provide adequate handholds

**Marking Instructions:**

**In:** Steps, ladders and handrails safe and in good repair.

**Out:** Steps, ladders and handrails loose, unsafe, or in poor repair.

**N/A:** This section may be marked N/A if a natural bathing place.

**Notes:**

## CONSTRUCTION & MAINTENANCE

**5: Decks: unobstructed, proper construction, adequate drainage, maintained, nonslip surfaces**

**Statute/Code Regulations:** NAC 444.134, 444.135, 444.438, 444.454, 444.456, 444.462

**Critical Violations**

**Non Critical Violations**

- Deck area less than 4 feet around perimeter.
- Drainage from the deck runs into the pool/spa.
- Slope on deck less than ¼ inch per foot.
- Deck material is not slip resistant.
- Decks free from sharp corners, cracks or other hazards.
- Wet deck area (4 feet from the edge) has wood, carpet or other absorbent material.
- Water collected on roof or canopy drains in to pool/spa.

**Corrective Action:**

**Marking Instructions:**

- In:** Deck unobstructed, no hazards, proper slip resistant finish.  
**Out:** Deck area obstructed, hazard present, or no slip resistant finish.  
**N/A:** This section may be marked N/A if a natural bathing place.

**Notes:**

## CONSTRUCTION & MAINTENANCE

### 6: Enclosures: proper construction, no hand/foot holds, self-closing, unblocked, wading pool fenced separately

**Statute/Code Regulations:** NAC 444.136, 444.204, 444.224, 444.463, 444.465

**Critical Violations**

- Broken gate or fence area which does not allow facility to be secured.

**Non Critical Violations**

- Fence has more than 4 inches between vertical posts.
- Fence has more than 4 inches under bottom rail of fence.
- Fence less than 5 feet tall between horizontal cross pieces.
- External hand/foot holds present (may be due to rocks, electrical boxes, large spring gate closure devices, plants)
- Fence does not completely surround pool/spa area.
- Gates are not self-closing or self-latching.
- Gates propped open.
- Wading pool is not fenced separately from other pool(s).

**Corrective Action:**

If facility is not able to be secured, it shall be closed pending repairs. For a facility whose fence is too short, they may be given time to comply with fence requirements. Must note that fence must be fixed prior to opening next season.

**Marking Instructions:**

**In:** Fence is of adequate height/spacing. No external hand/foot holds. Gates are self-closing and not propped open.

**Out:** Fence is not of adequate height/spacing. External hand/foot holds. Gates are not self-closing or are propped open.

**N/A:** This section may be marked N/A if a natural bathing place.

**Notes:**

For existing facilities that have a pool/spa and a wading pool, the wading pool does not need to be fenced separately if it is more than 15 feet from the adjacent pool/spa. This guidance is consistent with the Model Aquatic Health Code.

# CONSTRUCTION & MAINTENANCE

## 7: Drinking water: present, accessible

**Statute/Code Regulations:** NAC 444.204, 444.216, 444.248, 444.460

### Critical Violations

- Drinking fountains are connected to a non-potable water source.

### Non Critical Violations

- Drinking fountains are inoperable or the stream of water fails to clear the mouth-guard.
- Drinking fountains are dirty.
- Drinking fountains in poor repair.
- No heated water available at shower heads.
- Spa: drinking water not located within 100 feet.

### Corrective Action:

Any connections to non-potable water shall be immediately disconnected.

### Marking Instructions:

**In:** Drinking fountains operable with adequate stream of water.

**Out:** Drinking fountains non-operable or connected to non-potable water.

**NA:** May not mark this section N/A.

### Notes:

Facility may choose to provide bottled drinking water or other water cooler dispenser in lieu of a drinking fountain.

## CONSTRUCTION & MAINTENANCE

### 8: Hose bibs: available, operational

**Statute/Code Regulations:** NAC 444.138, 444.216, 444.458

**Critical  
Violations**

**Non Critical  
Violations**

- Hose bib not provided to enable cleaning of decks and appurtenances.
- Hose bib location creates a safety hazard.
- Hose bib not available within 50 feet of spa deck.

**Corrective Action:**

**Marking Instructions:**

**In:** Hose bib available and safely located.

**Out:** No hose bib available or hose bib creates safety hazard.

**N/A:** This section may be marked N/A if a natural bathing place.

**Notes:**



## CONSTRUCTION & MAINTENANCE

### 9: Electrical: lights shielded, correct installation, present for after dark operations

**Statute/Code Regulations:** NAC 444.140, 444.142, 444.204, 444.222, 444.248, 444.466

#### Critical Violations

- Lights hanging into pool; exposed electrical wiring.

#### Non Critical Violations

- Lights do not function and pool has posted hours that state they stay open past dark.
- Adequate lighting is not provided for bath houses.

#### Corrective Action:

If wiring is exposed, facility shall be closed until lights are repaired.

If lights are sealed but are not working, facility may change posted hours to close at dark.

#### Marking Instructions:

**In:** Lighting provided, shielded, safe.

**Out:** Lighting is not provided and facility is open after dark, lights not shielded, safe.

**NA:** This section may be marked N/A if facility does not operate after dark.

#### Notes:

Artificial lighting must be provided for all public bathing facilities, natural bathing places, bath houses, toilet rooms, dressing rooms, and equipment rooms that are to be used at night or that do not have adequate natural lighting.

Spas may have overhead lighting that provides adequate lighting to see into the spa.

## CONSTRUCTION & MAINTENANCE

### 10: Restrooms/showers: adequate, proper construction, maintained, hot and cold water available

**Statute/Code Regulations:** NAC 444.204, 444.210, 444.214, 444.218, 444.222, 444.224, 444.226, 444.228, 444.248, 444.468, 444.470, 444.472

**Critical Violations**

- Water not available or of inadequate flow (a rate of 3 gallons/minute per shower head is required).

**Non Critical Violations**

- Inadequate number or no bathrooms provided.
- Bathrooms not properly ventilated.
- Bathrooms are dirty.
- Bathrooms are not stocked with soap, paper towels or toilet paper.
- Bathrooms do not have smooth & easily cleanable surfaces.
- Bath house floor does not have a slip resistant finish.
- Bath house floors do not slope to drain.

**Corrective Action:**

Facility permit may be suspended if no water is available.

**Marking Instructions:**

**In:** Bathrooms provided, stocked and clean.

**Out:** No bathrooms provided, or are not stocked or clean.

**NA:** This section may be marked N/A if the facility is exempted (see notes).

**Notes:**

These requirements do not apply to a facility operated in a hotel, motel, trailer park, apartments, or condominiums. However, a bather must not need to travel more than 300 feet to reach a restroom. If rooms are more than 300 feet, a separate toilet, lavatory and shower must be available at the spa for men and women. Even if it is not required, but bathroom facilities are provided, they must be clean.

No steps are permitted between the bath house and the deck.

# WATER QUALITY, CLARITY & CHEMICALS

## **11: Water source: approved, free from cross connection, air gap, backflow assembly tested annually**

**Statute/Code Regulations:** NAC 444.146, 444.216, 444.248, 444.474

<b>Critical Violations</b>	<ul style="list-style-type: none"> <li>Pool being filled with non-potable water, e.g. irrigation water or unapproved well.</li> </ul>
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<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>Water added to pool/spa through a hose that is under the water's surface</li> <li>Airgap of less than 6 inches between fill spout and rim of pool.</li> <li>No proof of backflow assembly annual testing result.</li> <li>Backflow assembly fails annual test and is not repaired/replaced and no subsequent passing test result available.</li> <li>Direct connection with domestic water supply without a backflow assembly.</li> </ul>
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**Corrective Action:**

Cross connections must be immediately removed or permit may be suspended.

**Marking Instructions:**

**In:** No cross connections present, backflow as required, air gap for filling the pool.

**Out:** Cross connections present, no backflow, or no air gap for filling the pool.

**NA:** This section may be marked N/A if a natural bathing place.

**Notes:**

If water is directly plumbed into the pool return lines so that there is no air gap, either a backflow assembly is required or the plumbing must be modified to have an air gap.

There may be a tag on the backflow assembly that could identify the date of last test, but may not indicate if it passed. A tag is not required. Tester should be providing a document that the backflow assembly has passed an annual test.

If the backflow assembly has not been tested, operator shall have assembly tested and submit proof of a passing result within 7 days.

# WATER QUALITY, CLARITY & CHEMICALS

## 12: Water quality: disinfection adequate (Cl 1.0-5.0/Br 3.0-5.0/Isolation 3.0-5.0)

**Statute/Code Regulations:** NAC 444.207, 444.148, 444.476, 444.532

<b>Critical Violations</b>	<ul style="list-style-type: none"> <li>• Chlorine measured at 0.5ppm or less.</li> <li>• Chlorine measured at 10.0ppm or more.</li> <li>• Bromine measured at 1.5ppm or less.</li> <li>• Bromine measured at 8.0ppm or more.</li> <li>• Isolation or flotation tank measured at 2.9ppm or less (bromine or chlorine).</li> <li>• Isolation or flotation tank measure at 5.1ppm or more (bromine or chlorine).</li> </ul>
<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>• Chlorine between 0.6 – 0.9ppm.</li> <li>• Chlorine between 5.1 – 9.9ppm.</li> <li>• Bromine between 1.6 – 2.9ppm.</li> <li>• Bromine between 5.1 – 7.9ppm.</li> </ul>

**Corrective Action:**

Permit shall be suspended if disinfection meets one of the critical violations.

**Marking Instructions:**

**In:** Disinfection maintained at correct level.

**Out:** Disinfection not maintained at correct level.

**NA:** This section may be marked N/A if a natural bathing place or flow through pool.

**Notes:**

Pools and spas: chlorine must be maintained between 1.0-5.0ppm; bromine must be maintained between 3.0-5.0ppm.

Isolation/flotation tanks: chlorine or bromine must be maintained between 3.0-5.0ppm.

Multiple repeat non-critical violations may warrant the suspension of the permit.

If a permit is suspended due to water quality, ALL water quality parameters must be correct before reinstating permit. (Cl =1.0-5.0ppm, Br = 3.0-5.0ppm, pH 7-8, alkalinity 80-120ppm, cyanuric less than 100ppm) A reinspection is required.

Non-critical violations are consistent with the Model Aquatic Health Code.

# WATER QUALITY, CLARITY & CHEMICALS

## 13: Water quality: pH (7.0-8.0)

**Statute/Code Regulations:** NAC 444.148, 444.476

<b>Critical Violations</b>	<ul style="list-style-type: none"><li>• pH measured 6.9 or less</li><li>• pH measured 8.1 or more</li></ul>
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<b>Non Critical Violations</b>	
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**Corrective Action:**

Permit shall be suspended if pH meets one of the critical violations.

**Marking Instructions:**

**In:** pH is measured between 7.0 and 8.0.

**Out:** pH is measured at 6.9 or less, or 8.1 or more.

**NA:** May mark this item N/A if at a natural bathing place or flow through pool.

**Notes:**

pH must be maintained between 7.0 – 8.0.

If a permit is suspended due to water quality, ALL water quality parameters must be correct before reinstating permit. (Cl =1.0-5.0ppm, Br = 3.0-5.0ppm, pH 7-8, alkalinity 80-120ppm, cyanuric less than 100ppm) A reinspection is required.

# WATER QUALITY, CLARITY & CHEMICALS

## 14: Water quality: alkalinity (80-120ppm)

**Statute/Code Regulations:** NAC 444.148, 444.476

**Critical Violations**

**Non Critical Violations**

- Alkalinity measured at 79ppm or less.
- Alkalinity measured at 121ppm or more.

**Corrective Action:**

**Marking Instructions:**

**In:** Alkalinity maintained at proper level.

**Out:** Alkalinity not maintained at proper level.

**NA:** This section may be marked N/A if a natural bathing place or flow through pool.

**Notes:**

Alkalinity must be maintained between 80-120ppm. While a violation of alkalinity is not in and of itself a health hazard, it is critical in maintaining the balance of pH and disinfection.

If a permit is suspended due to water quality, ALL water quality parameters must be correct before reinstating permit. (Cl =1.0-5.0ppm, Br = 3.0-5.0ppm, pH 7-8, alkalinity 80-120ppm, cyanuric less than 100ppm) A reinspection is required.

# WATER QUALITY, CLARITY & CHEMICALS

## 15: Water quality: cyanuric acid ≤100

**Statute/Code Regulations:** NAC 444.148, 444.476

**Critical Violations**

- Cyanuric acid measured at 101ppm or above.

**Non Critical Violations**

**Corrective Action:**

Permit shall be suspended if cyanuric acid meets the critical violation.

**Marking Instructions:**

**In:** Cyanuric acid maintained at 100ppm or less.

**Out:** Cyanuric acid measured at 101ppm or above.

**NA:** This section may be marked N/A if the facility does not use cyanuric acid, e.g. in a brominated pool/spa, or is a natural bathing facility or flow through pool.

**Notes:**

If a permit is suspended due to water quality, ALL water quality parameters must be correct before reinstating permit. (Cl =1.0-5.0ppm, Br = 3.0-5.0ppm, pH 7-8, alkalinity 80-120ppm, cyanuric less than 100ppm) A reinspection is required.

## WATER QUALITY, CLARITY & CHEMICALS

### **16: Water clarity: main drain clearly visible, water body free from visible dirt/scum**

**Statute/Code Regulations:** NAC 444.148, 444.174

**Critical Violations**

- Water clarity observed so that the pattern of the main drain is not visible.

**Non Critical Violations**

- Facility observed with dirt, leaves or other debris in water body.

**Corrective Action:**

Permit shall be suspended until main drain is clearly visible. A reinspection is required.

**Marking Instructions:**

**In:** Main drain clearly visible, no visible dirt.

**Out:** Main drain not clearly visible, or water body has dirt build up.

**NA:** This section may be marked N/A if a natural bathing place.

**Notes:**



# WATER QUALITY, CLARITY & CHEMICALS

## **17: Disinfectant: feeders properly installed, continuously applied, approved**

**Statute/Code Regulations:** NAC 444.148, 444.178, 444.182, 444.476, 444.502, 444.504

**Critical Violations**

- Operator hand chlorinates/brominates the pool/spa.
- Disinfectant tabs observed in skimmer baskets.
- Facility not equipped with chlorinator, hypochlorinator or other disinfectant feeder.
- Chemical feeder does not comply with ANSI Standard 50, "Circulation System Components and Related Materials for Swimming pools, Spas/Hot tubs"
- Chemical feeder unable to supply 3 pounds of chlorine for outdoor pools, or 1 pound of chlorine for indoor pools, in a 24 hour period.
- Facility uses unapproved chemical for disinfection.

**Non Critical Violations**

**Corrective Action:**

Permit shall be suspended if the continuous disinfectant equipment is not functioning or not installed. A reinspection is required.

**Marking Instructions:**

- In:** Disinfectant is continuously applied with proper equipment.
- Out:** Disinfectant is not continuously applied with proper equipment.
- NA:** This section may be marked N/A if a natural bathing place or a flow through pool.

**Notes:**

# WATER QUALITY, CLARITY & CHEMICALS

## 18: Test kit available with adequate supplies

**Statute/Code Regulations:** NAC 444.184, 444.508

**Critical Violations**

**Non Critical Violations**

- Operator does not have a test kit to test water quality.
- Test kit uses orthotolodine for determining level of residual disinfectant.
- Operator’s test kit is out of testing reagents.
- Reagents in test kit are expired.

**Corrective Action:**

**Marking Instructions:**

**In:** Test kit available and stocked.

**Out:** Test kit unavailable or not stocked.

**NA:** This section may be marked N/A if a natural bathing place or a flow through pool.

**Notes:**

If water quality parameters do not meet requirements, they shall be marked out under Sections 12 through 15 as appropriate.

# WATER QUALITY, CLARITY & CHEMICALS

## 19: Chemicals stored per manufacturer's instructions

Statute/Code Regulations: NAC 444.182

**Critical  
Violations**

**Non Critical  
Violations**

- Facility does not have adequate storage for chemicals.
- Chemicals are stored where they may get wet.
- Chemicals not stored in accordance with manufacturer's instructions.

**Corrective Action:**

**Marking Instructions:**

**In:** Appropriate chemicals are used and are properly stored.

**Out:** Inappropriate chemicals are used or are improperly stored.

**NA:** This section may be marked N/A if a natural bathing place or a flow through pool.

**Notes:**

## RECIRCULATION

### **20: Drains: protective cover installed, anti-entrapment (VGB) adequate and functioning, CPO knowledgeable of drain cover expiration date**

**Statute/Code Regulations:** NAC 444.158, 444.480, WCDBOH Public Swimming Pool and Spa Operator Certification Program 020.010 , 020.035

<b>Critical Violations</b>	<ul style="list-style-type: none"> <li>• Anti-entrapment device (VGB) is not functioning.</li> <li>• No anti-entrapment device (VGB) installed when there is only one main drain.</li> <li>• Drain cover broken, missing, improperly installed.</li> </ul>
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<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>• Drain cover expired.</li> <li>• CPO is not aware of or able to provide proof of drain cover expiration date.</li> <li>• Drain not located in deepest part of the pool/spa.</li> </ul>
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**Corrective Action:**

If a facility's anti-entrapment device is not functioning, or installed, permit shall be immediately suspended pending repair. A reinspection is required.

**Marking Instructions:**

**In:** Drain covers installed and in good repair; anti-entrapment device tested ok; CPO provides proof of drain cover expiration.

**Out:** Drain covers not installed or in poor repair; anti-entrapment device failed or is not installed; CPO does not have proof of drain cover expiration date.

**NA:** This section may be marked N/A if a natural bathing place, or if the facility has a channel drain or dual main drains that are at or greater than required separation.

**Notes:**

The 3 main types of VGB devices are:

Emotron/Stingl – a device that looks like an electrical box, usually mounted on the wall. When tested, it cuts the power to the system and shuts off the pump and alarms.

VacAlert – a device that looks like a white cylinder with a gauge attached. When tested, it cavitates the pump (you'll see a lot of air in the filter basket) and the flow rate will go down to 0. The pump does not shut off.

SVRS – a device that is integrated into the pump. It looks like a keypad on the pump. When tested, it turns off the pump.

Required separation for dual main drains: pool = 48 inches, spa = 36 inches. Two main drains on separate planes also meet the requirement for VGB compliance. (e.g. one on the bottom and one on the side wall)

The VGB device is tested per manufacturer's instructions. See below.

#### Emotron

**The following Procedure will test the installation of the PSP20 and will shut down the pump providing the installation has been completed correctly. This procedure should be repeated every time the filters are back washed or every 7 days to ensure that if a blocked suction condition arises the pump will automatically shut down.**

To test for a blocked suction condition, ensure that the LCD display shows window 01 Display Window 01. Close the pump suction valve. Within 1.0 Second the pump should shut down. The display will show Function Underload. The panel Reset push button Light will be illuminated, showing a blocked suction condition has occurred.

To reset the alarm and to restart the pump, press the remote Reset Push Button located on the door. **Customer to carryout this procedure frequently. A recommended frequency would be at the time of filter backwash or every 7 days. On Pool applications with skimmer's, close the skimmer valves prior to completing this procedure.**

#### Stingl

##### **Set-Up Verification Procedure**

Proper operation of the SR-500 must be verified by restricting flow to the pump while running in any of the normal operating modes (timed, continuous, and remote). Begin testing by covering the main drain sump with a rubber mat. This will cause the pump to pull through the skimmer line(s) only, resulting in a higher operating vacuum. It may be possible to cover the drain and not increase the operating vacuum past the cut-off threshold. In these cases it will be necessary to close the skimmer valve(s) to create the vacuum necessary to create an alarm condition.

**NOTE: Repeat this test 3 times to verify proper installation.**

**NOTE: Stingl Products does not recommend testing the main drain with an influent valve, due to the possibility of eliminating variables such as springloaded hydrostatic valves, and leaking or collapsing lines. Covering the sump with a mat ensures that the entire line is tested from the sump to pump.**

#### VacAlert

The unit is easily tested by closing the fast-acting test valve installed between the unit and the main drain while the circulating pump is fully primed and running. Close the test valve quickly, with a quick snap: open-shut-open. Closing the test valve this way simulates an entrapment event (Fig. 8). In lieu of a test valve, place a test mat (Fig. 9) over the main drain to simulate an entrapment event.

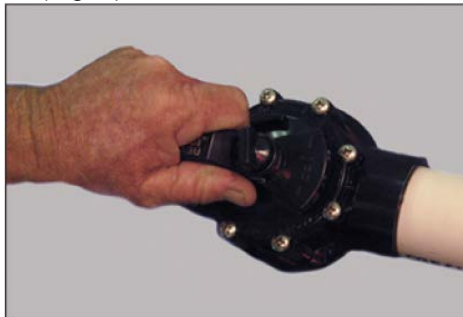


FIGURE 8. Fast-acting, full port test valve.



FIGURE 9. Test mat

### **SVRS**

All SVRS devices shall be factory set or field adjusted to site-specific hydraulic conditions. Once installed, the system shall be tested by simulating an entrapment event.

A ball, butterfly, or sliding gate valve shall be installed within 2 ft. (0.6m) upstream from the SVRS (between the SVRS and the protected suction outlet), or a test mat shall be used to cover the suction outlet to simulate an entrapment event. There shall be three simulated entrapment tests conducted to verify proper adjustment and operation of the device.

Suction check valves and hydrostatic valves **shall not be used** with this pump.

When check valves are installed on the discharge side of the pump a SVRS Check Valve Kit (P/N 350250Z) must be installed.

### **Suction Blockage**

When something blocks the suction or the pump fully it will shut off immediately (within 1 second). It will also shut off after a few seconds of dead heading with the same alert. The unit will come back on in two (2) minutes and ramp up slowly. This function should be tested with all new installations.

When something fully blocks the suction of the pump it will shut off immediately. It will also shut off after a few seconds of dead heading with the same alert. The unit will reset after two (2) minutes and ramp up to speed slowly. This function should be tested on all new installations.

The operation can be checked in one of two ways. The first method requires the system to have a fast closing ball, butterfly or sliding valve in the suction line. This valve should be quickly closed in less than one (1) second. The second test method requires the use of a test mat to quickly cover the suction outlet to simulate an entrapment event.

## RECIRCULATION

### **21: Piping materials/pressure gauge: approved, labeled, properly installed, functional**

**Statute/Code Regulations:** NAC 444.160, 444.482

#### **Critical Violations**

#### **Non Critical Violations**

- Piping materials not made of non-toxic, corrosion resistant materials.
- Piping materials do not comply with Standard 14 for potable water applications of the National Sanitation Foundation.
- Pipes not supported and are settling, creating dirt traps or air pockets.
- Velocity exceeds 10 feet per second.
- Piping not labeled.

#### **Corrective Action:**

#### **Marking Instructions:**

**In:** Piping materials approved and labeled.

**Out:** Piping materials unapproved or unlabeled.

**NA:** This section may be marked N/A if a natural bathing place.

#### **Notes:**

# RECIRCULATION

## **22: Turnover rate: meets MTR, does not exceed filter design flow rate**

**Statute/Code Regulations:** NAC 444.152, 444.162, 444.168, 444.170, 444.172, 444.198, 444.1985, 444.199, 444.1995, 444.202, 444.207, 444.242, 444.484, 444.486, 444.488, 444.490, 444.492

<b>Critical Violations</b>	<ul style="list-style-type: none"> <li>• The recirculation system is not operated 24 hours a day.</li> <li>• The recirculation system fails to maintain adequate turnover time (flow rate less than minimum allowed).</li> </ul>
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<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>• Filter is operated above the capacity of the filter design flow rate.</li> </ul>
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**Corrective Action:**

If facility does not meet the required minimum turnover rate, permit shall be suspended. A reinspection is required.

**Marking Instructions:**

**In:** Recirculation system is continuously on and maintains required turnover time.

**Out:** Recirculation system is not continuously on or does not maintain required turnover time.

**NA:** This section may be marked N/A if a natural bathing place.

**Notes:**

On a seasonal opening, if the facility is operating above the filter design flow rate, they are not allowed to open. The facility may not restrict flow by turning a valve – they must operate at the designed flow rate.

On a regular routine inspection, if the facility is operating above the filter design flow rate, they have 7 days to either correct the issue or submit to WCHD for approval of a timeline for necessary work.

See next page for required minimum turnover times.

Minimum turn over times (must turn over their entire volume at least every):

Pools = 6 hours.

Spas = 30 minutes.

Wading pools = 30 minutes.

Activity pools = 4 hours.



Wave pools = 4 hours.

Water parks/specialty pools = 1 to 4 hours.

Child amusement lagoons = 1 hour.

Water course rides = 4 hours.

Isolation/floatation tanks = 4 times between users.

Turnover rate (hr) = pool volume / flow rate / 60min/hr

Example: You have a 200,000 gallon pool with a flow rate of 750 gpm.

Operating turnover rate =  $200,000/750/60 = 4.44$  hours. This pool turns the volume over every 4 hours, so it meets the requirements.

Pool: minimum flow rate = gallons of water / 6 / 60

Spa: minimum flow rate = gallons of water / 0.5 / 60

# RECIRCULATION

## 23: Flow rate indicators: properly sized, located, functional

**Statute/Code Regulations:** NAC 444.154, 444.484

<b>Critical Violations</b>	<ul style="list-style-type: none"> <li>Flow meter does not work.</li> <li>Flow meter not installed.</li> <li>Flow meter is not the correct scale to properly measure the required minimum turnover rate and unable to determine accurate flow. (e.g. minimum turnover rate is 95, but highest mark on the flow meter is 80)</li> <li>Flow meter not adequately sized for the pipe it is installed on, e.g. 2 inch flow meter installed on 1 inch pipe.</li> </ul>
<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>Flow meter not located on the return line to the water body.</li> <li>Flow meter located before the filter.</li> <li>Flow meter is not the correct scale to properly measure the required minimum turnover rate, but meets the minimum turnover rate. (e.g. minimum turnover rate is 65gpm, reading on the flow meter is between 80-100gpm. The lowest mark on the meter is 70gpm, so you would not be able to determine if the gpm dropped if it still met the minimum turnover rate.</li> </ul>

**Corrective Action:**

If the flow meter is not working or improperly sized and you are unable to verify flow rate, permit shall be suspended. A reinspection is required.

**Marking Instructions:**

**In:** Flow meters properly located and functional.

**Out:** Flow meters improperly located or non-functional.

**NA:** This section may be marked N/A if a natural bathing place.

**Notes:**

The flow meter size is located on the bottom of the flow meter and will say something like IPS 2", which means that this flow meter is designed for a 2 inch pipe.



e.g. if pool's MTR is 35gpm, this flow meter would be incorrectly sized because it only goes down to 40gpm.

# RECIRCULATION

## 24: Vacuum cleaning system: present, functional

Statute/Code Regulations: NAC 444.174

### Critical Violations

### Non Critical Violations

- Facility does not have a vacuum cleaning system.
- Vacuumed water discharged to storm drain.

### Corrective Action:

### Marking Instructions:

**In:** Vacuum cleaning system provided, proper waste disposal.

**Out:** Vacuum cleaning system not provided, or waste discharged to storm drain.

**NA:** This section may be marked N/A if a natural bathing place or spa.

### Notes:

# WASTEWATER DISPOSAL

## 25: Wastewater disposed of in sanitary sewer via air gap

**Statute/Code Regulations:** NAC 444.176, 444.498

**Critical  
Violations**

**Non Critical  
Violations**

- When discharged to sewer, no air gap is provided.
- Water or material cleaned from filter disposed of in a way that creates a nuisance.
- Water discharged to storm drain or ground.

**Corrective Action:**

**Marking Instructions:**

**In:** Water discharged to sewer and air gap is provided.

**Out:** Water not discharged to sewer or air gap is not provided.

**NA:** This section may be marked N/A if at a natural bathing place.

**Notes:**

## SAFETY & SIGNAGE

### 26: Lifesaving equipment: present, maintained. Lifeline anchor or tile marker installed

**Statute/Code Regulations:** NAC 444.126, 444.266

<b>Critical Violations</b>	<ul style="list-style-type: none"> <li>• No lifesaving equipment present.</li> <li>• Lifesaving equipment stored in locked closet or otherwise not readily available.</li> </ul>
<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>• Lifesaving equipment is broken or in poor repair, but another item is still available.</li> <li>• A shepherd's hook is available but a ring buoy is not (or visa versa).</li> <li>• Lifeline anchor not installed at least 2 feet toward the shallow end from the break in grade between shallow and deep end of pool.</li> <li>• Lifeline corroded, broken or floating unanchored in pool.</li> </ul>

**Corrective Action:**

If CPO cannot make lifesaving equipment immediately available, permit shall be suspended. A reinspection is required.

**Marking Instructions:**

- In:** Lifesaving equipment present in good repair, lifeline anchors available.
- Out:** Lifesaving equipment missing, in poor repair, no lifeline anchors available.
- NA:** This section may be marked N/A if a natural bathing place, spa, water slide, wave pool or activity pool.

**Notes:**

Lifesaving equipment must include at least one from each category:

1. Rescue tube or ring buoy (minimum outside diameter of 20 inches with rope attached not less than 1.5 times the maximum width of the pool) Rope diameter must be at least ¼ inch.
2. Life pole or shepherd's hook with minimum handle length of 12 feet for either one.

For pools that are deeper than 5 feet, lifeline anchors must be installed.

For pools with depth greater than 5 feet with no demarcation (such as a tile/painted line) a lifeline must be installed. If the lifeline is observed not installed, yet the operator can articulate an operational procedure that protects bathers, for example a lifeline may be removed during lap swimming, but is reinstalled at the conclusion of the activity, this would not be a violation.

For pools with a depth greater than 5 feet, with an acceptable demarcation line (tile/painted line), a lifeline is not required.

The tile/painted line must be 2-6 inches in width. The tile/painted line must run along the bottom and up the side of the pool to the water line.

## SAFETY & SIGNAGE

### 27: Signs: present, visible, maintained, accurate

**Statute/Code Regulations:** NAC 444.116, 444.1974, 444.246, 444.268, 444.276, 444.278, 444.280, 444.524, 444.526, 444.530, 444.534

**Critical Violations**

**Non Critical Violations**

- Any of the following signs missing: CPR graphic instruction sign, 9-1-1 or emergency phone numbers, warning – no lifeguard on duty, capacity, requirements for bather behavior, no animals allowed, no diving allowed.
- Spa: no sign stating “extended exposure to hot water or vapors may be detrimental to the health of elderly persons and persons with heart conditions, diabetes, or high or low blood pressure”.
- Spa: no sign stating “no person may use the spa alone”.
- Spa: no sign stating “children 12 years of age or younger must be supervised by an adult and that the maximum recommended time for such children to use the spa is 10 minutes”.
- Natural bathing place: missing “no lifeguard service beyond this point sign”; other hazards, such as excessive depth, are not marked.
- Water recreation attractions: missing prohibited behaviors signage:

**Corrective Action:**

**Marking Instructions:**

- In:** Signs present and accurate.
- Out:** Signs missing.
- NA:** May not mark this section N/A.

**Notes:**

## SAFETY & SIGNAGE

### 28: Telephone: operational, landline, located outside enclosure

**Statute/Code Regulations:** NAC 444.268, 444.248, 444.530

**Critical Violations**

- Emergency phone does not work.
- No emergency phone located in the vicinity of pool/spa.
- Emergency phone is a cell phone, or other non-hard wired device.

**Non Critical Violations**

- Emergency phone located inside the pool enclosure.\*\*

**Corrective Action:**

If one of the critical violations is noted, permit shall be suspended. A reinspection is required.

**Marking Instructions:**

**In:** Emergency phone is functional and located outside the pool/spa enclosure.

**Out:** Emergency phone is not functional or located inside the pool/spa enclosure.

**NA:** May not mark this section N/A.

**Notes:**

On direct dial phones, call dispatch prior to making any test 9-1-1 calls:

City of Reno/Unincorporated Washoe County 775-334-2121 or 775-334-2677

City of Sparks 775-353-2231.

Always stay on the line when connected to 9-1-1. Identify yourself, state that you are testing a pool emergency phone and that there is no emergency. Dispatch may confirm the address of the location you are at.

On phones that do not direct dial 9-1-1, check for a dial tone. You do not need to call.

\*\*In situations where the enclosure prevents visibility of the pool, the phone may be located inside the enclosure. Coordinate with a supervisor.

## SAFETY & SIGNAGE

### 29: First aid kit: present, properly stocked

**Statute/Code Regulations:** NAC 444.266, 444.528

**Critical Violations**

**Non Critical Violations**

- No first aid kit available.
- First aid kit missing items.
- First aid kit is not accessible during pool operational hours.

**Corrective Action:**

**Marking Instructions:**

- In:** First aid kits available and properly stocked.  
**Out:** First aid kits unavailable or missing items.  
**NA:** May not mark this section N/A.

**Notes:**

The exact contents of a first aid are not expressly outlined in the NAC. First aid kits should include:

1. First Aid Book
2. Box Plastic Adhesive Bandages - 1" x 3" (16/Box)
3. Tweezers
4. Scissors
5. Spool Tape - 1/2" x 5 yards
6. 2 - Compress Bandages - 3" x 3"
7. Triangular Bandage - 40"
8. Small Ice Pack
9. Box Fingertip Bandages - 10/Box
10. Box Cloth Knuckle Bandages
11. Eye Dressing
12. Box Telfa Pads - 1 1/2" x 2" (12/Box)
13. Roller Gauze
14. 3 - Packages Clean Wipes
15. Compact CPR Shield
16. Latex Gloves
17. 2 - Emergency Blankets



## SAFETY & SIGNAGE

### 30: Lifeguards: present as required, qualifications adequate, radio communication at water slides

**Statute/Code Regulations:** NAC 444.144, 444.1944, 444.1946, 444.1976, 444.250, 444.262, 444.270, 444.272, 444.274, 444.532

<b>Critical Violations</b>	<ul style="list-style-type: none"> <li>• No lifeguard on duty when one is required.</li> <li>• No attendant on duty at water slide entrance or exit.</li> <li>• No radio communication provided between attendants.</li> <li>• No way to monitor slide exit.</li> <li>• Less than 1 lifeguard on duty for each 400 feet of beach.</li> </ul>
<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>• Attendants/lifeguards not certified by American Red Cross or equivalent in CPR and first aid.</li> <li>• Lifeguards do not have distinguishing apparel.</li> <li>• Facility does not have a plan for attendants that outlines where they are stationed, training and emergency procedures, any other provisions as necessitated by facility's design.</li> <li>• No supervision at a wading pool.</li> <li>• No lifeguard certifications on site.</li> </ul>

**Corrective Action:**

**Marking Instructions:**

**In:** Lifeguard on duty, has required certifications.

**Out:** No lifeguard on duty, inadequate certifications.

**NA:** This section may be marked N/A if facility is exempted from the lifeguard requirements (see notes).

**Notes:**

An isolation and floatation tank, spray pool, mineral bath or therapeutic pool is not required to have a lifeguard on duty.

Pools not open to the general public (such as an HOA) are not required to have a lifeguard.

Pools meeting all the following requirements are not required to have a lifeguard:

- a) The pool is operated solely for and in conjunction with a hotel, motel, trailer park, apartment, condominium or other facility containing multiple dwellings.
- b) The pool has a surface area of less than 2000 square feet.
- c) There is no fee charged for the use of the pool.

## SAFETY & SIGNAGE

## SAFETY & SIGNAGE

### **31: Appropriate exclusion of employees and visitors applied, bathing prohibited during electrical storm**

**Statute/Code Regulations:** NAC 444.252, 444.280, 444.282, 444.532

**Critical Violations**

- Person observed not complying with the rules, and operator does not exclude them.
- Bather's allowed to swim during electrical storm.
- Person (bather or employee) with communicable disease is not excluded.
- CPO does not respond to diarrheal incident in the pool/spa.

**Non Critical Violations**

**Corrective Action:**

Operator shall immediately exclude person.

**Marking Instructions:**

**In:** Persons in pool/spa area complying with all rules; or persons not complying are excluded by operator.

**Out:** Operator does not exclude persons not complying with rules.

**NA:** May not mark this section N/A.

**Notes:**

See [Appendix B](#) for CDC response guidelines.

## SAFETY & SIGNAGE

### **32: Food / drink: allowed in appropriate location, approved tableware**

**Statute/Code Regulations:** NAC 444.1972, 444.288, 444.536

**Critical Violations**

- Glass on deck or in water.

**Non Critical Violations**

- Food and drinks are permitted in water.
- Facility uses clear plastic dishes/utensils.

**Corrective Action:**

If unbroken glass is observed in the pool area, it shall be immediately removed. If broken glass is noted, the pool must be closed, drained, and thoroughly vacuumed before reopening.

**Marking Instructions:**

**In:** Food and drinks are in approved areas.

**Out:** Food and drinks are in water; not in approved tableware.

**NA:** This section may be marked N/A if facility does not allow food/drinks.

**Notes:**

Food may be permitted in a visitor area or other area approved by the Health Authority.

Tableware is defined in the Regulations of the Washoe County District Board of Health Governing Food Establishments.

## SAFETY & SIGNAGE

**33: Heating units: proper temperature maintained (spa 70-104F, isolation tank ≤95F), controlled by thermostat**

**Statute/Code Regulations:** NAC 444.186, 444.207, 444.234, 444.510, 444.524

**Critical Violations**

- Any permitted water body measured above 104F.

**Non Critical Violations**

- Therapy pools measured at 69F or below.
- Isolation tank measured at 96F to 104F.
- Heating units stored in a place where they may cause injury, e.g. on the pool deck.
- No thermostat is available to control the heater.

**Corrective Action:**

If water body is measured above 104F, permit shall be suspended. A reinspection is required.

**Marking Instructions:**

**In:** Temperature within required range.

**Out:** Temperature does not meet required range.

**NA:** This section may be marked N/A if the facility does not have spas, therapy pools, isolation tanks or mineral pools.

**Notes:**

## SAFETY & SIGNAGE

### 34: Wave pools: audible alarm, emergency shut off, life jackets available

**Statute/Code Regulations:** NAC 444.1985

**Critical Violations**

- No emergency shut off provided for pool attendants.
- Emergency shut off does not function.

**Non Critical Violations**

- Waves over 3 feet high generated for more than 15 minutes.
- No life jackets provided at request of bather.
- No audible alarm to alert bathers of beginning of wave generation.

**Corrective Action:**

If no emergency shut off is available or it does not function, permit must be suspended. A reinspection is required.

**Marking Instructions:**

**In:** Wave pool has audible alarm, emergency shut off and life jackets.

**Out:** Wave pool does not have audible alarm, emergency shut off or life jackets.

**NA:** This section may be marked N/A if the facility does not have a wave pool.

**Notes:**

Emergency shut off must be tested during inspection.

# OPERATIONS

## 35: Permit: valid operating permit, permit posted

**Statute/Code Regulations:** NAC 444.240, 444.258, 444.520

### Critical Violations

- Facility does not have current operating permit.

### Non Critical Violations

- Facility has permit, but it is not posted in a conspicuous place.

### Corrective Action:

Facilities found operating without a permit shall be ordered to immediately cease and desist operations pending permit application and approval.

### Marking Instructions:

**In:** Facility possesses valid permit which is conspicuously posted.

**Out:** Facility does not possess valid permit, or permit is not conspicuously posted.

**NA:** May not mark this section N/A.

### Notes:

# OPERATIONS

## 36: Daily operating records: available, accurate, complete

**Statute/Code Regulations:** NAC 444.264, 444.522

### Critical Violations

- Facility fills out forms ahead of time (dry lab).
- No records available.

### Non Critical Violations

- Facility's operating records have days missing.
- Records for facility are not kept on site.
- Records indicate that there may be dry labbing, e.g. same flow rate or chemistry levels every day.

### Corrective Action:

If a critical violation is noted, the permit shall be suspended. Facility shall remain closed until CPO provides a written operational plan demonstrating proper compliance with daily records. Plan must be approved by WCHD prior to reinstating the permit. A reinspection is required.

Repeated non-critical violations of this section may be cause to suspend the permit until the operator can show one week of proper recordkeeping. Repeat violations may result in the CPO not being recognized, which would result in permit suspension.

### Marking Instructions:

**In:** Operating records complete and available for review.

**Out:** Operating records incomplete or unavailable for review.

**NA:** This section may be marked N/A if a natural bathing place.

### Notes:

See [Appendix A](#) for example daily operating record.

# OPERATIONS

## 37: Certified pool operator (CPO): NSPF certified, overseeing daily activities

**Statute/Code Regulations:** NAC 444.262, Regulations of the Washoe County District Board of Health Governing Public Swimming Pools and Spa Operator Certification Program 020.005, 020.010, 020.035

### Critical Violations

- No certified pool operator oversees the facility.
- Operator is not certified by National Swimming Pool Foundation (NSPF).

### Non Critical Violations

### Corrective Action:

If there is no CPO to oversee the facility, permit shall be suspended. A reinspection is required.

### Marking Instructions:

**In:** NSPF certified CPO oversees pool operation.

**Out:** No CPO, or CPO does not possess NSPF certification.

**NA:** This section may be marked N/A if a natural bathing place.

### Notes:



# OPERATIONS

## **38: Inactive facilities: facility properly secured, maintained**

**Statute/Code Regulations:** NAC 444.110, 444.112, 444.114, 444.116, 444.120, 444.122, 444.136, 444.156, 444.164, 444.166, 444.168, 444.188, 444.195, 444.1952, 444.1954, 444.1956, 444.1958, 444.196, 444.1962, 444.1964, 444.1966, 444.1968, 444.198, 444.1985, 444.1995, 444.199, 444.200, 444.202, 444.204, 444.207, 444.224, 444.228, 444.242, 444.436, 444.438, 444.440, 444.452, 444.463, 444.465, 444.472, 444.477, 444.494, 444.512

<b>Critical Violations</b>	
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<b>Non Critical Violations</b>	<ul style="list-style-type: none"> <li>• A non-operating facility does not have a fence that meets the requirements.</li> <li>• A non-operating facility has water that creates a vector harborage.</li> </ul>
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**Corrective Action:**

**Marking Instructions:**

- In:** Non-operating facility is properly secured and does not create a vector harborage.  
**Out:** Non-operating facility is not properly secured or creates a vector harborage.  
**NA:** This may be marked N/A if the facility is in operation.

**Notes:**

This section only applies to facilities that maintain a permit but do not operate the facility. A permit is required for any facility that is not properly filled in.

### Appendix A – Daily Operating Records

**WASHOE COUNTY HEALTH DISTRICT**  
 DIVISION OF ENVIRONMENTAL HEALTH SERVICES  
 WELLS AVENUE AT NINTH STREET  
 RENO NV  
 Front Desk 328-2434  
 Automated Inspection 325-8000

**POOL OPERATING RECORD**

Name of Facility \_\_\_\_\_  
 Permit Number \_\_\_\_\_  
 Sanitizer \_\_\_\_\_

	Date		Date		Date		Date		Date		Date	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
ACTUAL TIME												
BROMINE/CHLORINE												
pH												
TOTAL ALKALINITY												
CALCIUM HARDNESS												
CYANURIC ACID (ppm)												
FLOW RATE												
BACKWASH (yes/no)												
ORP												
MAKEUP WATER												
CHEMICALS ADDED												
AMOUNT OF CHEMICALS ADDED												
VGB COMPLIANT												
EQUIPMENT CHECKED												
GATES/DOORS/SAFETY EQUIPMENT, ETC.												
OPERATORS INITIALS												
NOTES:												

**WASHOE COUNTY HEALTH DISTRICT**

**SPA OPERATING RECORD**

DIVISION OF ENVIRONMENTAL HEALTH SERVICES  
 WELLS AVENUE AT NINTH STREET  
 RENO NV

Front Desk 328-2434  
 Automated Inspection 325-8000

Name of Facility \_\_\_\_\_  
 Permit Number \_\_\_\_\_  
 Sanitizer \_\_\_\_\_

	Date		Date		Date		Date		Date		Date	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
ACTUAL TIME												
BROMINE/CHLORINE												
pH												
TOTAL ALKALINITY												
CALCIUM HARDNESS												
CYANURIC ACID (ppm)												
WATER TEMPERATURE												
FLOW RATE												
BACKWASH (yes/no)												
ORP												
MAKEUP WATER												
CHEMICALS ADDED												
AMOUNT OF CHEMICALS ADDED												
VGB COMPLIANT												
EQUIPMENT CHECKED												
GATES/DOORS/SAFETY EQUIPMENT, ETC.												
OPERATOR'S INITIALS												
NOTES:												

Rev. 10/12/10

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## HEALTHY SWIMMING

### Fecal Incident Response Recommendations for Aquatic Staff

What do you do when you find poop in the water?



**Check for existing guidelines from your local or state regulatory agency before use. CDC recommendations do not replace existing state or local regulations or guidelines.**

These recommendations are for responding to fecal incidents in chlorinated aquatic venues (for example, pools and water playgrounds).

Improper handling of chlorine-based disinfectants can cause injury. Follow proper occupational safety and health requirements when following these recommendations. For more pool chemical safety information, visit [www.cdc.gov/healthywater/swimming/aquatics-professionals/preventing-pool-chemical-events.html](http://www.cdc.gov/healthywater/swimming/aquatics-professionals/preventing-pool-chemical-events.html).

**CLOSURES:** Fecal incidents are a concern and an inconvenience to both aquatic staff and patrons. Aquatic staff should carefully explain to patrons why the aquatic venue needs to be closed in response to a fecal incident. Explaining the reasons for closing the venue (for proper disinfection and protection of swimmer health) is likely to promote patron understanding and minimize their frustration. Closures allow chlorine to do its job—kill germs and help prevent recreational water illnesses (RWIs).

Hot tubs/spas, and some water playgrounds, can have much smaller amounts of water. In response to formed or diarrheal fecal incidents in small-volume venues, it might be more efficient to completely drain as much water as possible from the venue and associated plumbing; scrub and clean all accessible surfaces in contact with contaminated water; replace or clean filter media when appropriate, and refill with uncontaminated water from an approved source (for example, municipal water system).



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

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## What do I do about...

### formed fecal matter (poop) in the water?

Formed fecal incidents pose a risk for spreading germs, including moderately chlorine tolerant *Giardia*. To disinfect the water following a formed fecal incident, aquatic staff should follow the steps below, which are based on killing or inactivating *Giardia*.

**Step 1:** Close the aquatic venue to swimmers. If you have multiple venues that use the same filtration system—all of the venues will have to be closed to swimmers. Do not allow anyone to enter the venue(s) until the disinfection process is completed.

**Step 2:** Remove as much of the fecal matter as possible (for example, using a net or bucket) and dispose of the fecal matter in a sanitary manner. Clean and disinfect the item used to remove the fecal matter (for example, after cleaning, leave the net or bucket immersed in the water during disinfection). **VACUUMING FECAL MATTER FROM THE WATER IS NOT RECOMMENDED.**

**Step 3:** Using unstabilized chlorine (for example, sodium hypochlorite), raise the water's free chlorine concentration to 2 parts per million (ppm), if less than 2 ppm. Maintain free chlorine concentration at 2 ppm and water at pH 7.5 or less for 25–30 minutes.<sup>1</sup> Other concentrations or closure times can be used (see table). State or local regulators may require higher free chlorine concentration in the presence of chlorine stabilizers,<sup>2</sup> which are known to slow the rate at which free chlorine inactivates or kills germs.

**Step 4:** Confirm that the filtration system is operating while the water reaches and is maintained at the proper free chlorine concentration and pH for disinfection.

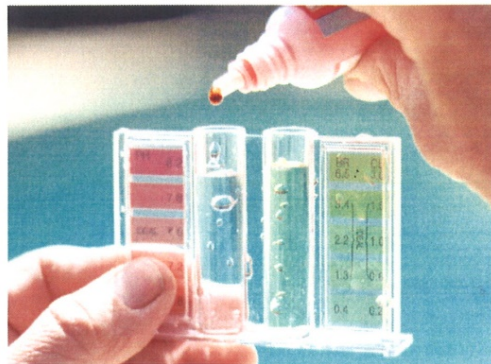
**Step 5:** Allow swimmers back into the water only after the disinfection process has been completed and the free chlorine concentration and pH are within the operating range allowed by the state or local regulatory authority.

#### Establish a fecal incident log.

Document each fecal incident by recording date and time of the event, whether it involved formed fecal matter or diarrhea and the free chlorine concentration and pH at the time of observation of the event. Before reopening the aquatic venue, record the procedures followed in response to the fecal incident (including the process used to adjust chlorine concentration and pH [if necessary], the free chlorine concentration and pH, and the disinfection time). You can download a Water Contamination Response Log at <http://www.cdc.gov/healthywater/swimming/aquatics-professionals/fecalresponse.html>

#### Giardia Kill or Inactivation Time for a Formed Fecal Incident

Free Chlorine Concentration (ppm)	Disinfection Time <sup>3</sup>
1.0	45 minutes
2.0	25–30 minutes
3.0	19 minutes



1. Ideally, the water temperature should be 77°F (25°C) or higher during the disinfection process.

2. Chlorine stabilizers include compounds such as cyanuric acid, dichlor, and trichlor.

3. These closure times are based on 99.9% kill or inactivation of *Giardia* cysts by chlorine at pH 7.5 or less and temperature of 77°F (25°C) or higher. The closure times were derived from the U.S. Environmental Protection Agency (EPA) Disinfection Profiling and Benchmarking Guidance Manual. These closure times do not take into account "dead spots" and other areas of poor pool water mixing.

## What do I do about...

diarrhea in the water when chlorine stabilizer<sup>1</sup> is NOT in the water?

A diarrheal incident is a high-risk event for contamination caused by *Cryptosporidium* (or “Crypto”), an extremely chlorine-tolerant parasite. Therefore, it is important that aquatic staff educate patrons not to swim when ill with diarrhea. To disinfect the water following a diarrheal incident, aquatic staff should hyperchlorinate, or raise the free chlorine concentration to a high concentration for a long period of time. If necessary, before attempting to hyperchlorinate, consult an aquatic professional to determine the feasibility, the most optimal and practical methods, and needed safety considerations.

**Step 1:** Close the aquatic venue to swimmers. If you have multiple venues that use the same filtration system—all of the venues will have to be closed to swimmers. Do not allow anyone to enter the venue(s) until the hyperchlorination process is completed.

**Step 2:** Remove as much of the fecal matter as possible (for example, using a net or bucket) and dispose of the fecal matter in a sanitary manner. Clean and disinfect the item used to remove the fecal matter (for example, after cleaning, leave the net or bucket immersed in the water during hyperchlorination).

### **VACUUMING FECAL MATTER FROM THE WATER IS NOT RECOMMENDED.**

**Step 3:** Using unstabilized chlorine (for example, sodium hypochlorite), raise the water’s free chlorine concentration (see Table below) and maintain water at pH 7.5 or less.<sup>2</sup>

**Step 4:** Achieve a concentration × time (CT) inactivation value of 15,300<sup>3</sup> to inactivate or kill Crypto. The CT inactivation value refers to the concentration of free chlorine in parts per million (ppm) multiplied by time in minutes at a specific pH and temperature.

**Step 5:** Confirm that the filtration system is operating while the water reaches and is maintained at the proper free chlorine concentration and pH for hyperchlorination.

**Step 6:** Backwash the filter thoroughly after reaching the CT inactivation value. Be sure to discharge directly to waste and according to state or local regulations. Do not return the backwash through the filter. Where appropriate, replace the filter media.

**Step 7:** Allow swimmers back into the water only after the required CT inactivation value has been achieved and the free chlorine concentration and pH are within the operating range allowed by the state or local regulatory authority.

### **Establish a fecal incident log.**

Document each fecal incident by recording date and time of the event, whether it involved formed fecal matter or diarrhea and the free chlorine concentration and pH at the time of observation of the event. Before reopening the aquatic venue, record the procedures followed in response to the fecal incident (including the process used to adjust chlorine concentration and pH [if necessary], the free chlorine concentration and pH, and the hyperchlorination time). You can download a Water Contamination Response Log at <http://www.cdc.gov/healthywater/swimming/aquatics-professionals/fecalresponse.html>

### **Use the formula below to calculate the time required to inactivate or kill Crypto<sup>3</sup>**

Concentration × time (CT) inactivation value	÷	Free chlorine concentration (parts per million [ppm])	Time (in minutes)
15,300	÷	20*	= 765 (or 12.75 hours)
15,300	÷	10	= 1,530 (or 25.5 hours)

1. Chlorine stabilizers include compounds such as cyanuric acid, dichlor, and trichlor.

2. Ideally, the water temperature should be 77°F (25°C) or higher during the hyperchlorination process.

3. Alternative options could include circulating the water through a secondary disinfection system (for example, ultraviolet light or ozone) to theoretically reduce the number of Crypto oocysts in the aquatic venue(s) below one oocyst/100 mL, as outlined in the Model Aquatic Health Code (MAHC) standard 4.7.3.3.2.4 (current edition of the MAHC is available at [www.cdc.gov/mahc/currentedition/index.html](http://www.cdc.gov/mahc/currentedition/index.html)) or draining the aquatic venue(s).

4. CDC does not recommend testing the water for Crypto after hyperchlorination is completed. Although hyperchlorination destroys Crypto’s infectivity, it does not necessarily destroy the structure of the parasite.

5. Shields JM, Hill VR, Arrowood MJ, Beach MJ. Inactivation of *Cryptosporidium parvum* under chlorinated recreational water conditions. J Water Health. 2008;6(4):513–20.

\* Many conventional test kits cannot measure free chlorine concentrations this high. Use chlorine test strips that can measure free chlorine in a range that includes 20–40 ppm (such as those used in the food industry) or make dilutions for use in a standard DPD test kit using chlorine-free water.

## What do I do about...

### diarrhea in the water when chlorine stabilizer<sup>1</sup> is in the water?

A diarrheal incident is a high-risk event for contamination caused by *Cryptosporidium* (or “Crypto”), an extremely chlorine-tolerant parasite. Therefore, it is important that aquatic staff educate patrons not to swim when ill with diarrhea. To disinfect the water following a diarrheal incident, aquatic staff should hyperchlorinate, or raise the free chlorine concentration to a high concentration for a long period of time. If necessary, before attempting to hyperchlorinate, consult an aquatic professional to determine the feasibility, the most optimal and practical methods, and needed safety considerations.

**Step 1:** Close the aquatic venue to swimmers. If you have multiple venues that use the same filtration system—all of the venues will have to be closed to swimmers. Do not allow anyone to enter the venue(s) until the hyperchlorination process is completed.

**Step 2:** Remove as much of the fecal matter as possible (for example, using a net or bucket) and dispose of the fecal matter in a sanitary manner. Clean and disinfect the item used to remove the fecal matter (for example, after cleaning, leave the net or bucket immersed in the water during hyperchlorination).

#### VACUUMING FECAL MATTER FROM THE WATER IS NOT RECOMMENDED.

**Step 3:** Using unstabilized chlorine (for example, sodium hypochlorite), raise the water’s free chlorine concentration (see bullets below) and maintain water at pH 7.5 or less.<sup>2</sup>

**Step 4:** Hyperchlorinate.<sup>3</sup> Chlorine stabilizer slows the rate at which free chlorine inactivates or kills Crypto, and the more stabilizer there is in the water the longer it takes to kill Crypto.

#### If the cyanuric acid concentration is 1–15 parts per million (ppm)<sup>4</sup>

- Raise the free chlorine concentration to 20 ppm<sup>5</sup> and maintain it for 28 hours or
- Raise the free chlorine concentration to 30 ppm<sup>5</sup> and maintain it for 18 hours or
- Raise the free chlorine concentration to 40 ppm<sup>5</sup> and maintain it for 8.5 hours

**If the cyanuric acid concentration is more than 15 ppm, lower the concentration to 1–15 ppm by draining partially and adding fresh water without chlorine stabilizer before attempting to hyperchlorinate.**

**Step 5:** Confirm that the filtration system is operating while the water reaches and is maintained at the proper free chlorine concentration and pH for hyperchlorination.

**Step 6:** Backwash the filter thoroughly after hyperchlorination has been completed. Be sure to discharge directly to waste and according to state or local regulations. Do not return the backwash through the filter. Where appropriate, replace the filter media.

**Step 7<sup>6</sup>:** Allow swimmers back into the water only after hyperchlorination has been completed and the free chlorine concentration and pH are within the operating range allowed by the state or local regulatory authority.

#### Establish a fecal incident log.

Document each fecal incident by recording date and time of the event, whether it involved formed fecal matter or diarrhea and the free chlorine concentration and pH at the time of observation of the event. Before reopening the aquatic venue, record the procedures followed in response to the fecal incident (including the process used to adjust chlorine concentration and pH [if necessary], the free chlorine concentration and pH, and the hyperchlorination time). You can download a Water Contamination Response Log at <http://www.cdc.gov/healthywater/swimming/aquatics-professionals/fecalresponse.html>

1. Chlorine stabilizers include compounds such as cyanuric acid, dichlor, and trichlor.

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4. Murphy JL, Haas CN, Arrowood MJ, Hlavsa MC, Beach MJ, Hill VR. Efficacy of chlorine dioxide tablets on inactivation of *Cryptosporidium* oocysts. *Environ Sci Technol.* 2014;48(10):5849–56.

5. Many conventional test kits cannot measure free chlorine concentrations this high. Use chlorine test strips that can measure free chlorine in a range that includes 20–40 ppm (such as those used in the food industry) or make dilutions for use in a standard DPD test kit using chlorine-free water.

6. CDC does not recommend testing the water for Crypto after hyperchlorination is completed. Although hyperchlorination destroys Crypto’s infectivity, it does not necessarily destroy the structure of the parasite.