



## **BUSINESS IMPACT STATEMENT**

### Adoption of the proposed **AQUATIC FACILITY REGULATIONS**

The Southern Nevada Health District (SNHD) staff will present before the District Board of Health a petition to adopt proposed Aquatic Facility regulations to replace the current *Regulations Governing Public Bathing Places Public Spas*, Nevada Administrative Code Chapter 444, sections 010 through 546, as adopted by the State Board of Health on January 16, 1996. This Business Impact Statement serves as an analysis to determine the impact the proposed regulations will have on businesses.

As required by NRS 233B.0609, this statement sets forth the following information:

1. The manner in which comment was solicited from affected businesses:
  - a. Public Workshops regarding the Adoption of new Aquatic Facility Regulations were held on October 17<sup>th</sup> and 20<sup>th</sup>, and November 18<sup>th</sup> and 28<sup>th</sup>, 2016 at the Southern Nevada Health District (SNHD) Public Health Center. Additional workshops were held on November 13<sup>th</sup>, 15<sup>th</sup>, and 28<sup>th</sup>, 2017/ The public notices for the workshops as well as for the proposed regulations were duly posted on the SNHD website, in the SNHD main office, and in the main offices of local municipalities, which provided the date and time of the Public Hearing and Public Workshops.

In April 2017, at the request of board members, a copy of the business impact survey was sent to the mailing address of each facility with a permitted body of water, as well as the billing address of each certified pool company. The survey contained a web address to the SNHD Public Notices page, which had a link to an online version of the survey. The survey could be filled out on paper and mailed back to SNHD, returned in person, or completed online. A total of 2,122 surveys were mailed. SNHD received 174 completed online surveys, approximately 50 via email, and 261 were returned via mail or dropped off in person. This process was repeated in October 2017 with the revised draft of the Proposed Regulations, and an additional 1,946 surveys were mailed to facilities, with the survey again posted on the SNHD Public Notices page to be completed online.

A public meeting was held on April 27<sup>th</sup>, 2017 to take additional comment

from affected persons regarding the impact of the regulations on businesses. Additional meetings were held in conjunction with the second survey on October 16<sup>th</sup>, 17<sup>th</sup>, and 18<sup>th</sup>, 2017, to take comment on the revised draft. Interested persons may obtain a summary of the comments and the audio recording of the meetings by contacting the Aquatic Health Program at (702) 759-0572, or by emailing aquatic@snhd.org. A copy of the comments may be requested at one dollar per page.

2. The manner in which the analysis was conducted:
  - a. The comments received, in addition to the survey responses, were analyzed by the SNHD staff. In addition, every section of the proposed regulation was also analyzed. Any sections of the regulation which would impose a direct and significant economic burden upon business, or which would directly restrict the formation, operation or expansion of a business was included in the analysis. Any input received from businesses from the survey was reviewed and considered in the methods to reduce impact on businesses.
3. The majority of the comments received via email or through the survey were from members of home owners associations or employees of apartment communities. A large number of the comments received were related to provisions in previous versions of the proposed regulation draft requiring the addition of automated controllers and associated equipment for all existing and new facilities. Another provision from a previous version of the regulation draft which received a number of comments was the requirement to gradually phase out the use of cyanuric acid in aquatic venues over a specified period of time, which would require most existing facilities to replace equipment, or comments related to draining pools more frequently if the allowable cyanuric acid levels are lowered from 100 parts per million.

In addition, SNHD received numerous comments regarding the requirement to have a “RESPONSIBLE PERSON” perform various tasks at the aquatic venue seven days per week, equating this to servicing the pool every day.

SNHD also received comments regarding whether or not HOA pools should be subject to regulations governing public bathing places/public pools. As defined in NAC 444 and NRS 444, aquatic venues at HOAs are not excluded from the public swimming pool definition. As such, deregulation was not a consideration of this impact statement or the proposed regulations.

The Estimated economic effect of the proposed regulations on the businesses which it is to regulate, including, without limitation, both adverse and beneficial

effects and both direct and indirect effects:

Adverse Effects – New Construction:

- All pedestrian doors around the INDOOR AQUATIC FACILITY perimeter shall be equipped with an automatic door closer capable of closing the door completely without human assistance against the specified difference in air pressure between the INDOOR AQUATIC FACILITY and other INTERIOR SPACES
- Depth markers shall also be located on the POOL coping or DECK within 18 inches of the POOL structural wall or perimeter gutter.
- Depth markers shall be marked in units of feet and inches
- For POOL water depths five (5) feet (1.5 m) or less, all required DECK depth markers shall be provided with “NO DIVING” warning signs along with the universal international symbol for “NO DIVING.”
- “NO DIVING” warning signs and symbols shall be spaced at no more than 25 foot intervals around the POOL perimeter edge
- Artificial lighting shall be provided at all AQUATIC VENUES
- Suction and supply POOL piping shall be subjected to a static hydraulic water pressure test for the duration specified by an engineer and/or the HEALTH AUTHORITY
- All gauges shall be equipped with valves to allow for servicing under operating conditions
- A flow meter accurate to within +/- 5 percent of the actual design flow shall be provided for each filtration system. When a VFD is in use a flow meter must be accurate to within +/- 2 percent
- All pumps shall be installed with a manual adjustable discharge valve to provide a backup means of flow control as well as for system isolation
- A physical BARRIER shall be installed between chemical feed pumps supplying acid or liquid hypochlorite solution and other POOL components to shield staff and equipment from chemical sprays and leaking connections
- The new construction or SUBSTANTIAL ALTERATION of the following INCREASED RISK AQUATIC VENUES shall be required to use a SECONDARY DISINFECTION SYSTEM after adoption of these Regulations
- Where provided, permanently installed chairs/stands, where LIFE GUARDS can be exposed to UV radiation, shall include protection from such UV radiation exposure
- EQUIPMENT ROOMS or areas shall be lighted to provide 30 FOOT CANDLES (323 lux) of illumination at floor level
- A water-resistant, easily read, wall-mounted piping diagram shall be furnished and installed inside the EQUIPMENT ROOM

- Combustion equipment, air-handling equipment, and electrical equipment shall not be exposed to air contaminated with corrosive chemical vapors
- Doors between an EQUIPMENT ROOM and an INDOOR AQUATIC FACILITY shall be equipped with an automatic closer. The door, frame, and automatic closer shall be installed and maintained to ensure that the door closes completely, latches, and locks without human assistance
- Equipment may be installed in an outdoor ENCLOSURE provided the following conditions are met:
  - (a) Equipment must be securely installed on level concrete pads.
  - (b) Exposed plumbing must be protected from UV.
  - (c) Overhead UV protection must be provided.
  - (d) Unpaved areas within the ENCLOSURE shall be graded to allow for proper drainage with suitable ground cover to prevent the generation of mud in areas between equipment
- Equipment installed below grade shall be equipped with stairs and an associated handrail that meets applicable building code standards
- At least one space dedicated to CHEMICAL STORAGE SPACE shall be provided to allow safe STORAGE of the chemicals present
- Exterior CHEMICAL STORAGE SPACES shall be equipped with overhead UV protection
- A minimum of four (4) showerheads per 50 feet of beach entry AQUATIC VENUES shall be provided as a RINSE SHOWER located not more than 30 feet from the AQUATIC VENUE or queuing area
- A minimum of one RINSE SHOWER shall be provided at each entrance to a LAZY RIVER AQUATIC VENUE
- A minimum of one RINSE SHOWER shall be provided at each entrance to a WATERSLIDE queue line
- In female HYGIENE FACILITIES, covered receptacles adjacent to each toilet shall be provided for disposal of used feminine hygiene products
- Wastewater from an AQUATIC VENUE, including filter backwash water, shall be discharged indirectly, via a sump pit through an air-gap, to a sanitary sewer system having sufficient capacity to collect and treat wastewater
- Signage must be posted in the immediate vicinity (of a deluge shower) declaring that the SHOWER utilizes re-circulated water
- If construction has not been initiated within one (1) calendar year from the date of plan APPROVAL or if construction halts for one (1) calendar year, the PERMIT may be deleted and require the resubmission of plans and PERMIT application with associated fees prior to resuming construction.

Adverse Effects – All Facilities:

- The system flow rate shall not be reduced more than 50 percent lower than the minimum design requirements and only reduced when the AQUATIC VENUE is closed
- CLEANSING SHOWERS (when required) shall be supplied with soap and a soap dispenser adjacent to the SHOWER
- Water samples (for a natural bathing place) shall be submitted to a state-licensed laboratory each week. Such samples must meet the following criteria: *E. coli* at a geometric of 126 CFU per 100 mL and an STV (single test value) of 410 CFU per 100 mL measured using EPA Method 1603, or any other equivalent method that measures *E. coli*
- A written comprehensive preventive maintenance plan for each AQUATIC VENUE shall be available at the AQUATIC FACILITY
- A comprehensive inventory of all mechanical equipment associated with each AQUATIC VENUE shall be available at the AQUATIC FACILITY.
- All components of the filtration and RECIRCULATION SYSTEMS shall be kept in continuous operation 24 hours per day.
- For all AQUATIC VENUES not associated with residential living units, the FAC (or bromine) and pH shall be tested prior to opening and every four (4) hours while accessible to BATHERS
- Total Alkalinity (TA) and combined available chlorine shall be tested weekly at all AQUATIC VENUES.
- CYA shall be tested monthly at all AQUATIC VENUES utilizing CYA.
- If AQUATIC VENUES utilize stabilized CHLORINE as its primary disinfectant, the operator shall test CYA every week.
- All QUALIFIED OPERATORS currently registered with the HEALTH AUTHORITY shall obtain proof of national certification from a recognized testing entity at the time of their registration renewal within three years from the adoption of these Regulations. Registrations will expire in conjunction with the national certification date and must be renewed prior to expiration.
- QUALIFIED OPERATORS shall monitor the pool weekly during the off season, a minimum of three (3) times per week during the peak season, or more as necessary to maintain compliance with these Regulations.
- Any POOL ENCLOSURE with a cumulative unsupervised POOL surface area of 4000 square feet or more (lifeguard requirements)
- All AQUATIC FACILITIES shall create and implement a SAFETY PLAN to include, but not be limited to the following elements: Staffing Plan, EMERGENCY ACTION PLAN, Biohazard action plan, Pre-Service Training Plan, and In-service Training Plan
- AQUATIC FACILITIES that are required to have two or more LIFEGUARDS per the Lifeguard Staffing Plan's zone of BATHER surveillance responsibility in Section 4-303.2 shall have at least one PERSON located at

the AQUATIC FACILITY during operation designated as the LIFEGUARD SUPERVISOR who meets the requirement of Section 4-202

- AQUATIC FACILITIES with required LIFEGUARD staff shall create and maintain an operating procedure manual containing information on the emergency response and communications plan including an EAP, Facility Evacuation Plan, and Inclement Weather Plan
- A written Facility Evacuation Plan shall be developed and maintained for the AQUATIC FACILITY
- Each AQUATIC FACILITY shall develop an operations manual to keep at the AQUATIC FACILITY in either a printed or electronic format that is readily available for review during inspection
- AQUATIC FACILITIES shall keep records pertaining to the operation, maintenance, and management of the AQUATIC FACILITY.
- Unless a QUALIFIED OPERATOR is available onsite all day, keys must be provided to allow access the POOL, pump room, restrooms, SHOWER, and any other related areas.
- A Body Fluid Contamination Response Log shall be maintained to document each occurrence of contamination of the water or its immediately adjacent areas by formed or diarrheal fecal material, whole stomach discharge of vomit, and blood
- All AQUATIC FACILITIES shall have a CONTAMINATION RESPONSE PLAN within the EAP for responding to formed-stool contamination, diarrheal-stool contamination, vomit contamination, and contamination involving blood
- In the event of a fecal, vomit, or blood contamination incident, the AQUATIC FACILITY shall follow the most recent response guidelines from the CDC, *Healthy Swimming Fecal Incident Response Recommendations for Aquatic Staff*

#### Beneficial Effects:

- Facilities associated with lodging units will only be required to provide rinse showers, instead of both rinse and cleansing showers. A rinse shower is not required to provide hot water or soap for the bathers, which eliminates the need for heating units for showers at many facilities.
- The waiver process outlined in the proposed regulation may eliminate the need for applying for a variance if a permit holder wishes to deviate from the regulation.
- The proposed regulation allows applicants to submit fewer copies – and electronic copies – of plans with new construction and substantial alteration applications, which will reduce the costs of application submittal.

4. A description of the methods that the agency considered to reduce the impact of the proposed regulation on businesses and a statement regarding whether the agency actually used any of those methods:
  - a. Based on comments made during workshops, meetings, and from survey results, the changes below have been made to the proposed regulation draft.

One of the concerns brought up from the comment/survey period was that the increased equipment costs could result in the closure of many pools, as many existing facilities could not afford the initial expense of the equipment, or the increased maintenance costs, if any.

SNHD reached out to various local contractors to get cost estimates for the installation and maintenance of automated controllers and associated feed equipment. The costs varied depending on the specific equipment installed, but can range from \$2,500 to upwards of \$12,000 for installation. Routine maintenance can add an estimated \$150 to \$400 per month, depending on the services performed.

Based on the comments received from the public, as well as the information provided, SNHD has removed the requirement for automation on all existing facilities, instead the requirement will only apply to new construction. These changes were made prior to the presentation to the Board of Health at the August 2017 Board meeting.

There currently exists a provision in NAC 444.182 which requires equipment for the feeding of chemicals to maintain required pH if the facility is unable to adequately maintain the pH of the water. This has been added to the proposed regulation, and expanded to include equipment for maintaining a disinfectant residual. This provision could be used for facilities with a history of non-compliance with regard to disinfectant or pH levels.

The requirement to phase out cyanuric acid has also been removed, meaning that existing facilities, provided that they are able to adequately maintain water chemistry, will not have to remodel their equipment. In addition, the maximum allowable limits for cyanuric acid has been raised back to 100 parts per million, as is currently allowed in NAC 444.

A requirement in the proposed draft to include a set of spare filter cartridges on site for facilities with cartridge filters has been removed.

The requirement for a responsible person has been removed for facilities with no on-site staff, and has been changed to designate an existing staff member in charge of specific aquatic venue related duties for facilities with full time staff, but without a full time qualified operator on site.

5. The estimated cost to the agency for enforcement of the proposed regulation:
  - a. The estimated cost to the district is approximately \$8,000 of staff time, due to the division conducting industry training sessions with contractors and builders, facility managers, management companies, and pool operators.
  - b. The postage for the business impact surveys totaled approximately \$340, not including printing costs.
6. If the proposed regulation provides a new fee or increases an existing fee, the total annual amount the agency expects to collect and the manner in which the money will be used:
  - a. No new fees are set forth in the proposed regulation.
7. If the proposed regulation includes provisions which duplicate or are more stringent than federal, state or local standards regulating the same activity, an explanation of why such duplicative or more stringent provisions are necessary:
  - a. Nevada Revised Statute (NRS) 439.200(1) states that "The State Board of Health may by affirmative vote of a majority of its members adopt, amend and enforce reasonable regulations consistent with law." NRS 439.200(2) states that:

"Except as otherwise provided in NRS 444.650, those regulations have the effect of law and supersede all local ordinances and regulations inconsistent therewith, except those local ordinances and regulations which are more stringent than the regulations provided for in this section."

The proposed regulation, which replaces NAC 444.010-546, will be a local regulation and therefore will be more stringent than the regulation it supersedes.

8. The reasons for the conclusions of the agency regarding the impact of a regulation on businesses:
  - a. The proposed regulation and associated comments were thoroughly



examined, and any changes included in the regulation which would impose a direct and significant economic burden upon a business, or which would directly restrict the formation, operation or expansion of a business was included in the analysis. The division solicited responses from businesses through a survey mailed to permit holders, pool companies, as well as posted alongside the public notice for the public workshops. The division also solicited industry feedback during the regulation writing process in 2015 through industry workgroup meetings. Any feedback provided from previous workshops or meetings was considered during the preparation of this impact statement.

I, Jacqueline L. Reszetar, certify that, to the best of my knowledge or belief, the information contained in the statement was prepared properly and is accurate:

-S-

---

Jacqueline L. Reszetar, REHS  
Director of Environmental Health

10/25/17

---

Date