DATE: April 1, 2025

TO: Hearing Attendees and Commenters –
Oregon Administrative Rules chapter 333, divisions 60 and 62 –
"Aquatic Facility (Public Pools) rule update to align with Model Aquatic Health Code (MAHC)"

FROM: Brittany Hall, Hearing Officer and Administrative Rules Coordinator

cc: Gabriela Goldfarb, Section Manager
Environmental Public Health

SUBJECT: Presiding Hearing Officer's Report on Rulemaking Hearing and Public Comment Period

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Hearing Officer Report

Date of Hearing: January 16, 2025, via Microsoft Teams

Purpose of Hearing: The purpose of this hearing was to receive testimony regarding the Oregon Health Authority (OHA), Public Health Division, Public Pool Program's proposed repeal or Oregon Administrative Rules chapter 333, division 60, "Public Swimming Pools" and chapter 333, division 062, "Public Spa Pools," and proposed adoption of new rules in these divisions to reorganize and update rules relating to aquatic facility requirements. These OARs have been added onto and revised many times over the years and the program has decided to adopt the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services, 2023 Model Aquatic Health Code (MAHC), 4th Edition to bring Oregon's rules closer to the national standard for aquatic venue safety.

In accordance with ORS 448.011, OHA is responsible for the development of a comprehensive statewide aquatic facility regulation program, which includes standards pertaining to construction plan submission, plan approval, design, construction, size, shape, purification equipment, piping, operation, sanitation and accident prevention for public swimming pools, public spa pools, public wading pools and bathhouses.

The goal of the reorganization is to update rule language to better address the public health concerns with modern aquatic venues as well as to group sections of related topics together so the users can more easily find information based on their responsibilities at an aquatic venue, and to use inclusive and equity-focused language. The original rules were separated by facility type with pools separated from spas. However, with this rule update, the program proposes to reorganize to include all types of aquatic venues (ex; pools, spas, splash pads) and instead separate the rule sets by activity (construction provisions and operational provisions). This will allow both industry and regulators to utilize the rules more efficiently and include a wider variety of pool types. Most existing licensed aquatic venues will be able to continue to operate as licensed after the rule adoption.

Hearing Officer: Brittany Hall

Testimony Received: No individuals provided testimony at the hearing.

Other Comments: 26 individuals or organizations submitted written comments to OHA within the period allotted for public comment, which closed at 5:00 PM on February 25, 2025. Written comments are attached to this report as **EXHIBIT 1**.

In written comments, OHA heard concerns about a few proposed amendment topics, as outlined below:

A. Engagement and Participation
The OHA received written concerns about engagement and adequate opportunities to participate in the rule adoption process. Some written comments expressed that there was not enough time for response during the public comment period, even with the additional extensions. There was also a request to allow review of the final proposed document prior to adoption.

Agency Response:
The OHA appreciates the feedback from respondents regarding the rule adoption process. The process started in April 2024 with an email survey to all licensed facilities statewide discussing the potential rules and impacts they may have on operators, especially regarding cost for implementation. This survey provided the opportunity for owners and operators to volunteer to participate on the Rule Advisory Committee (RAC) as well.

The OHA then conducted a regulator-specific workgroup to process potential rule changes before moving to the formal RAC. The committee was selected based on the survey respondents and individuals that had expressed interest historically and included pool builders, pool designers, local regulators, general use facility operators from a parks and recreation district and limited use facility operators from homeowners' associations (large and small), traveler's accommodation and a community center. Committee meetings were conducted throughout November. The public written comment period was extended an additional two weeks to February 4, 2025, and then extended once more to February 25, 2025, to ensure everyone had adequate time for review of the rules.

The comment period was five weeks in total, which should have allowed all interested parties adequate time to review the proposed changes. During this time the Public Pool Program staff responded directly to all informal emails with specific questions about the rule as well, helping operators to understand how the rules would impact their specific operation and alleviate concerns or misunderstandings about updated requirements.

B. Limited Use Aquatic Venue Requirements

The agency heard concerns about the proposed amendments stating that limited use pool requirements are no longer clearly separated from general use pool requirements. There was a request to separate the regulation of public from private entities as well.

Agency response:

The OHA appreciates the feedback from respondents regarding the definition of "limited use" and how the updated rules will impact aquatic venues licensed as limited use facilities. In the proposed rule update, "limited use" remains distinctly defined from "general use pools." However, the core public health requirements, such as water chemistry and pool safety, will be consistent for both license categories.

The OHA will require lifeguards at limited use facilities only during competitive swimming events, sporting events, or when special features like waterslides, climbing walls, and lazy rivers are in use. This requirement is unchanged from the current rules. Additionally, the public pool regulations do not distinguish between non-profit and for-profit businesses, as the public health concerns are uniform for all types of facilities.

Regarding the requirements for showers, diaper-changing stations, and restrooms, these will apply only to new constructions and significant alterations. Existing facilities will not be required to meet these requirements if they are lacking any of the specified amenities.

The same definition of Limited Use remains in the rule under Aquatic Venue:
"Limited-Use" means any aquatic venue located at and operated in connection with a companion facility such as a residential housing facility having five or more living units, travelers' accommodations, mobile home park, recreation park, boarding school, organizational camp, dude ranch, club or association where use of the aquatic venue is limited to residents, patrons or members of the companion facility.

C. Lifeguard and Lifeguard Certification Requirements
In written comments, concerns were raised regarding updates to lifeguard certifications. It was noted that StarGuard Elite has replaced Starfish Aquatics Institute (SAI) as the lifeguarding provider and confirmed the StarGuard certification period is one year. Discrepancies were also identified in the Oregon Public Swimming Pool Lifeguard Certification Equivalency section, where the American Red Cross Lifeguard Training certification was incorrectly listed as three years instead of two.

Concerns were also raised about requiring physical hardcopies of lifeguard certification records on site, as cloud-based systems provide better security and compliance. Clarification was requested on whether digital records are acceptable and if public records requests could apply. Clarification was requested for 5.8.5.3.10-11, specifically whether requirements apply only to a single lifeguard or all qualified lifeguards.

Staffing challenges regarding the requirement for providing lifeguards for small exercise classes were also mentioned, since finding lifeguards for various timeslots throughout the day will be a challenge due to the demographic of available lifeguards and labor laws may also affect staff availability.

Lastly, commenters questioned the requirement for lifeguards to wear polarized sunglasses, suggesting that this should be noted as a recommendation rather than a requirement to accommodate individuals that require prescription eyewear and Americans with Disabilities Act (ADA) compliance.

Agency Response:
The OHA appreciates the clarification regarding Starfish Aquatics Institute, Starguard Elite and the Red Cross. The rules will be updated to include the correct provider's name and expiration dates.

The OHA understands the concerns with maintaining physical copies of the lifeguard certifications. Under the current draft language, the requirement for a physical copy is not explicitly mentioned and having digital copies available on request is acceptable.

Additionally, copies of lifeguard certifications should not be included as a part of a public records request to the authority having jurisdiction (AHJ).

5.8.5.3.10-11 applies to facilities that only provide one lifeguard on duty at a time. The requirement is in place in case there are more than one bather in distress, the lifesaving equipment may be utilized by another staff or patron.

Lifeguard Staffing for Training, Exercise Programs, and Lessons: The OHA recognizes the challenges of staffing lifeguards for short-duration programs, especially in smaller communities. The OHA has received several comments regarding this rule section and will make amendments so that lifeguards are only required for sports and competition for this section to ensure that there is adequate access to programs like swim lessons statewide.

The OHA will amend the section on the requirement for lifeguards to wear polarized sunglasses to be a recommendation to better accommodate lifeguards that wear prescription glasses or have other preferences.

D. Imminent Health Hazards, Closure

The OHA received comments requesting clarification around the imminent hazards that would result in the closure of an aquatic venue. Specifically, reporting requirements for incidents that occur outside of the body of water but within the facility (such as a fitness center near a pool), signage for continuously staffed facilities, plumbing cross connections, missing safety equipment, telephone accessibility, pH values and the facility enclosure.

Agency Response:

The OHA appreciates the thoughtful consideration that respondents have given to the rules and acknowledges the effort put into each comment. It is important to notify the AHJ if any injuries or exposures result in death or require emergency medical response, resuscitation, transport to a healthcare facility, chemical decontamination, or if there is any illness suspected to be related to the bathing water quality or the use of the aquatic facility. Reports should be submitted for incidents that occur on or near the “pool” deck of an aquatic facility; however, this requirement does not apply to incidents that take place in the fitness center or other areas not directly associated with the “pool” area.

A sign indicating an imminent health hazard is required only when a lifeguard is not present. This rule is intended to alert the general public about issues that need to be reported to an operator at unsupervised facilities. Examples of such issues include fecal

matter, broken or missing drain grates, problems with water clarity, water quality issues, and the presence of lightning. If imminent health hazard violations are identified on an inspection, they must be corrected, or the aquatic venue must be closed until these violations are resolved. A re-inspection or other evidence of correction will be required for re-opening the aquatic venue.

Plumbing and cross-connection issues are considered during the initial plan review of the aquatic facility. However, as the facility ages and new operators take over, equipment and practices may change. This is an important observation, and the OHA can provide additional training on plan review items or create a fact sheet to clarify any questions about cross-connections.

Provisions for an emergency telephone are included in the initial plan review of an aquatic facility, as well as in the required signage located in 5.8.5.2.3.

A malfunctioning door or a broken gate or fence would be considered as closure criteria since they are significant disruptions or operational inadequacies of the enclosure that allow unrestricted or easy access to the aquatic venue. A less significant issue, like the 4-inch gap in the enclosure proposed in the comment, would be addressed under 5.8.6, Barriers and Enclosures, and not as an Imminent Health Hazard.

The OHA recognizes that the proposed text in 5.7.3.4.1 indicates that the pH range should be between 7.0 – 7.8, which is incorrectly reflected in 6.6.3.1(4).

6.6.3.1(4) (OAR 333-062-1000(6)(ii)(D)) will be amended to read:
Violations Requiring Immediate Correction or Closure
The AHJ shall have the right to order immediate correction or order immediate pool closure for any of the following imminent health violations:
4) pH below ~~7.2.~~ 7.0

E. Cyanuric Acid
In written comments, concerns were raised about 5.7.3.1.2.4 and OAR 333-062-1000(5)(y), 5.7.3.1.3.1, which prohibit cyanuric acid in spas. While this restriction can improve sanitation, especially in facilities where staff may not fully understand its impact on chlorine disinfection, some situations suggest cyanuric acid may benefit water and air quality. Commenters recommended setting a violation threshold at 40 PPM and requiring pool closure above 60 PPM, and also suggested removing the provision that permits pools with excessive cyanuric acid to operate if they meet specific free chlorine levels, arguing it would hinder enforcement and mislead operators. While

acknowledging the rationale behind the current regulation, they stated that allowing concentrations above 40–50 PPM leads to additional complications and should not be considered acceptable.

Agency Response:
The OHA appreciates the thoughtful consideration and insights regarding cyanuric acid. The aim of adopting these new rules was to update the language to better address public health concerns across all aquatic venues. The updated regulations improve the management of cyanuric acid by limiting its use and reducing the maximum allowable concentration from 150 ppm to 90 ppm. However, the OHA also understands the concerns with tying the closure criteria to only the CYA:DPD-FC ratio, and the OHA recommends that closures will still be required above 150 ppm as with the current rule. Further reductions and improvements may be implemented in the future, but the OHA believes this is a solid starting point.

F. pH Range in Aquatic Venues
The OHA received a request to raise the maximum level of pH to 8.5 ppm and requesting clarification of the low pH.

Agency response:
There are three key reasons to maintain pH within the recommended range: the effect of pH on the effectiveness of chlorine, bather comfort, and the maintenance of balanced water.

Chlorine and hypochlorous acid (HOCl) are most effective at specific pH levels. When pH is higher, there is less HOCl available, which makes it more difficult to kill germs. In swimming pools, "chlorine" typically refers to HOCl. This weak acid can convert to hypochlorite (OCl-) and hydrogen ions (H+) at a pH of about 7.5, where the amounts of HOCl and hypochlorite are equal. Lowering the pH increases the concentration of HOCl, while raising it favors hypochlorite. HOCl is approximately 100 times more effective at killing germs than hypochlorite.

In general, bathers' eyes are more sensitive to irritation than their skin. The normal pH of human tears ranges from 6.5 to 7.6, with an average of 7.0. Also, pH has a direct impact on the Saturation Index, a measurement that indicates whether water is corrosive or scaling. A low pH can cause the water to dissolve calcium carbonate from plaster surfaces, while a high pH can lead to calcium carbonate scaling.

To ensure optimal public health and to protect surfaces, it is recommended to maintain a pH between 7.0 and 7.8, so the OHA will not be changing this requirement in the proposed rules.

G. Maximum Bather Load

In written comments, concerns were raised about the complexity of the bather load formula and its impact on operations. Commenter calculated a maximum of 183 swimmers, which will be far below their current approved building occupancy of 375 – and that this approach could lead to operational impacts such as revenue, staffing, and providing community services.

They questioned whether the formula was tested for feasibility in existing facilities, as it seems overly restrictive and complex, and requested clarification on its application. Additionally, OAR 333-062-1000(5)(h), 5.4.3.1 addresses maximum bather load for new construction, but does not specify what applies to existing facilities and if they should follow their originally approved bather load.

Agency Response:

For existing facilities, bather loads determined at the time of the plan review may be used. The OHA intends to adjust the rules to reflect OAR 333-060-0055, the historical formula for determining bather load for swimming pools. However, it should be noted that the bather load is specific to the number of bathers allowed in the water and is a separate total number of individuals allowed in a building.

The following section will be amended to read:

OAR 333-060-1000(5)(k), 4.1.2.3.5.3 Calculating Maximum Bather Load

The maximum bather load shall be calculated by dividing the surface area in square feet of the aquatic venue by the density factor (D) that fits the specific aquatic venue being considered. maximum bather load = aquatic venue Surface Area / D The density factors (D) are water/bather-related:

1) ~~Shallow area for pools with deck area twice the water surface area and pools with minimum deck area (5ft depth) = 10-20 ft2 per BATHER~~ Indoor or outdoor swimming pools with a surface area of less than 2,000 square feet = 24 ft2 per bather.

2) Outdoor swimming pools with a surface area of more than 2,000 square feet, where "F" equals the surface area of the pool greater than five feet (1.5m) and "S" equals the surface area of the pool less than five feet (1.5m) deep. (F / 27 ft2 per BATHER) + (S / 15 ft2 per BATHER). ~~Deep Area for pools with deck area twice the water surface area and pools with minimum deck area (> 5ft depth) = 10-20 ft2 per BATHER~~

3) Diving Area = 300 ft2 per diving board or platform

4) Spas = 10 ft2 per bather
5) Waterslide landing pool density factor = manufacturer-established capacity at any given time.
6) Interactive water play water density factor = 10 ft2 (0.9 m2) per bather on surface.
7) Surf pool density factor = manufacturer-established capacity at any given time.
Non-water/patron-related:
8) ~~DECK density factor = 50 ft2 (4.6 m2) per BATHER.~~
9) ~~STADIUM SEATING density factor = 6.6 ft2 (0.6 m2) per BATHER.~~

H. Signage

The OHA thanks respondents for their careful consideration of the language used around signage in the proposed rules. In written comments, concerns were raised about the volume and necessity of required signage, particularly in continuously lifeguarded facilities. Signage requirements seem more relevant to unsupervised or partially supervised facilities. They questioned whether additional signs may encourage patrons to take emergency action when trained staff are present and may create confusion in emergency response situations.

Additionally, section 5.8.5.2.3.4 requires posted hours of operation, but commenters sought clarification on whether general facility hours suffice or if separate pool hours must be displayed, especially since pool schedules frequently change.

Regarding section 4.5.19.9.2, commenters opposed the requirement for a sign indicating varying pool depths or a depth profile, stating that existing deck and tile depth markers sufficiently inform patrons, and that additional signage would be unnecessary, distracting, and that this requirement should be removed.

Regarding section 5.8.5.4.3, commenters questioned whether CPR posters are required in facilities where lifeguards are always present and requested clarification on the expected format of these posters.

Lastly, commenters asked if the requirement for recreational water illness and injury prevention posters to be posted under section 6.4.2.2.3.3 has a specific standard that should be referenced.

Agency Response:

The requirement to provide signs to indicate first aid location, emergency communication devices, emergency dialing instructions, management contact info, and hours of operation, applies to all facilities under section 5.8.5.2.3. These signs are not

intended to encourage patrons to act, but to ensure, staff or patrons unfamiliar with the facility, can quickly access emergency equipment if necessary.

The 'hours of operation' sign should be posted near the pool area, in a conspicuous location. Multiple signs can be printed to be rotated depending on the day or season to meet the requirements of 5.8.5.2.3.4.

The varying pool depth signage under section 4.5.19.9.2 is specific to pools that have moveable floors, since depths of the pool may vary depending on the user setting.

CPR posters are only required for facilities without lifeguards in section 5.8.5.4.3. Sources for CPR posters will be made available on the OHA website.

The OHA will provide sources for the recreational water illness and injury prevention posters. There are also examples on the CDC website at: https://www.cdc.gov/healthy-swimming/communication-resources/index.html.

I. Staff Management and Training

In written comments, concerns were raised regarding section 6.3.4, stating this section adds a second layer of requirements for facilities with lifeguards who already follow agency standards, such as the American Red Cross. Commenters suggested referencing certification bodies instead of prescribing specific requirements in the rules.

Concerns were also noted about section 6.3.4.2, which requires a Safety Team.
For section 6.3.1.2.4, concerns were raised that the new rules require a contracted off-site Qualified Operator for limited-use facilities and the current rules would allow the owner to delegate a responsible supervisor with no certification requirements.

For section 6.5.1.2.1, commenter is requesting clarification if one trained person must be onsite while the facility is open

In section 6.3.4.3.1, commenters argued lifeguard staffing should be based on zone surveillance and response times, not a patron-to-lifeguard ratio, and questioned the need for health department approval.

Lastly, the language in section 6.3.3.1.4 was seen as too restrictive and should be broadened to include limiting off-rotation duties for lifeguards.Commenters suggested broadening the language to include office duties and other job-related tasks. The OHA

believes the wrong section was included since this more closely aligns with the language in 6.3.3.1.3.

Agency Response:
The OHA understand the concerns regarding the additional layer of requirements for aquatic facilities employing lifeguards and the importance of aligning staffing, training, and surveillance protocols with the standards set by the certifying agency, such as the American Red Cross. The intent of this rule is to ensure the minimum requirements for staff management will be met for all licensed facilities in Oregon.

Regarding 6.3.1.2.4, this section only mentions that facilities without a full time onsite qualified operator shall have a designated onsite responsible supervisor.

Regarding section 6.3.4.2, the intent is to establish clear minimum expectations for facility staff to maintain a safe and well-managed environment.

Regarding section 6.5.1.2.1, the intent of this requirement is to ensure that there is always a staff member available who is trained to respond effectively to contamination incidents involving bodily fluids, including stool, vomit, and blood. These incidents pose potential health risks to patrons and having a trained person available helps ensure timely and appropriate response. Additionally, the requirement for training in personal protective equipment (PPE) and OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030) is in place to protect both staff and patrons by minimizing exposure risks in an aquatic environment. This aligns with best practices for workplace safety and public health.

The intent behind establishing a minimum lifeguard-to-patron ratio in section 6.3.4.3.1, is to ensure adequate supervision and safety for all bathers using the facility. This is identical to the previous rule set. While the OHA recognizes that zone surveillance and response times are critical components of lifeguard coverage, the patron-based minimum serves as a baseline to help maintain a safe environment.

Regarding section 6.3.3.1.3 (Alternation of Tasks), the intent of this requirement is to ensure that lifeguard staffing plans include clear supervision protocols that align with the safety objectives in rule. The OHA believes that any changes to this requirement would need to have further discussion in a Rule Advisory Committee and may be considered as part of a future rule change. The OHA's goal is to support both safety and practical facility operations, and the OHA appreciates the insights in refining this section.

Section 6.3.3.1.4 requires that facilities employing qualified lifeguards develop supervision protocols to meet the standards outlined in section 6.3.3 (safety plan).

J. Backwashing Filters When Bathers Present

The OHA received a comment requesting re-instatement of the rule requirement allowing backwashing while bathers are present.

Agency Response:

The OHA acknowledges that backwashing can be done with bathers present if done correctly and safely. 5.7.2.2.4.1.2 will be re-instated as follows:

5.7.2.2.4.1.2 - Backwashing With Bathers Present

A filter may be backwashed while BATHERS are in the aquatic venue if all of the following criteria are met:

1) Multiple filters are used;

2) The filter to be backwashed can be isolated from the remaining recirculation system and filters;

3) The recirculation and filtration system still continues to run as per this code;

4) The chemical feed lines inject at a point where chemicals enter the recirculation system after the isolated filter and where they can mix as needed; and

5) The filtrate from the newly backwashed filter is diverted to a waste line for a time sufficient to pass one filter volume of water through the filter.

EXHIBIT 1

From: Bott, Alaina
To: Public Health Rules
Subject: Comments for OHA revisions
Date: Tuesday, February 4, 2025 3:30:38 PM

Good Afternoon,

We reviewed the OHA proposed revision documents and I just wanted to ask for more clarification on rule 5/7/2/2/4/1. Is the proposed for public pools? If yes, this is going to greatly impact our operations.

5.7.2.2.4.1 A Backwash Scheduling Backwashes shall be scheduled to take place when the AQUATIC VENUE is closed for BATHER use. 5.7.2.2.4.1.1 Backwashing Without Bathers Present BATHERS shall not be permitted to reenter the AQUATIC VENUE until the RESPONSIBLE SUPERVISOR or QUALIFIED OPERATOR ensures that the recirculation pump and chemical feeders have restarted and run for a minimum of 5 minutes following completion of backwashing.

This is not written in the current OHA rule and would greatly impact our operations here at Portland Parks & Recreation. We have two people who service 12 pools and cannot shut down the facility to coordinate backwashes as we cannot determine the daily needs of all pools and occasionally need to trouble shoot emergencies. Nor can we schedule staff to work during off hours to avoid backwashes during operations. Our facilities are open from 5:00am – 9:00pm and our crew works 9 hour days to service these facilities. We would not be able to meet these guidelines if this rule is moved forward.

Could you please provide more context on the purpose of this rule?

Thank you. I know this is a hefty project and I appreciate the ability to provide feedback.

Alaina

Alaina Bott ***(she, her, hers)***
Aquatics Maintenance Supervisor | Aquatics
Portland Parks & Recreation
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portlandparks.org

From: dale fuller
To: Public Health Rules
Subject: OAR 333-060 and 333-062 - Aquatic Facility Rule Update - Adoption of the 2023 Model Aquatic Health Code
Date: Friday, February 14, 2025 12:21:31 PM

The Crosswater Homeowners association strongly encourages the adoption of a longer time duration between our daily inspections of our pools and spas water quality. The current 2 hours between checks is causing our small association extreme stress and financial burden due to the lack of qualified personnel and remoteness of our site's location. The extended time between checks provides more flexibility in scheduling personnel.

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Regards,

Dale Fuller 650.796.6977 (us)

Menlo Park, CA | Gig Harbor, WA | Bend, OR | New York, NY

From: Erik Gentzkow
To: Public Health Rules
Subject: Crosswater Association on Spa and Pool Check Hours
Date: Monday, February 24, 2025 9:32:41 AM

The Crosswater association as well as many other small HOA's in our community have a significant on-going challenge to perform the current two hour check required for pools ad spas. A move to 4 hours would greatly relieve the expenses associated with current guidelines. Please strongly consider moving the check to every four hours to assist all of the small communities in our County.

Thanks,

From: Howard Stephenson
To: Public Health Rules
Subject: Updated Pool Rules
Date: Wednesday, February 5, 2025 11:00:02 AM
Attachments: image001.png

5.7.2.3.6 Bumping

Bumping is the act of intentionally stopping the filter and forcing the precoat media and collected CONTAMINANTS to be removed from the filter septum. Bumping might impair pathogen removal and could facilitate the release of pathogens previously trapped in the filter. Therefore, bumping should be performed in accordance with the manufacturer's recommendations. Prior to restarting a bumped filter, it is recommended that the precoat be re-established in a closed loop recirculation mode or with water wasting until the discharge of the filter is clear to minimize the potential of media or CONTAMINANTS to re-enter the AQUATIC VENUE. Pending future research, bumping is strongly discouraged in any precoat filter application where pathogen removal is a concern. Bumping might impair pathogen removal as pathogens once trapped at the surface of the cake could be re-positioned close to the septum and penetrate the filter during operation.(137) Cystcontaminated water used for precoating filters led to much higher cyst concentrations in the filter effluent.(135) Precoat filters have been demonstrated to remove greater than 99% of the OOCYSTS. Using clean precoat media to precoat filters as well as maintaining continuous flow is recommended

I noticed this section from the MAHC was not included in the Oregon Revised Pool Rules. There are numerous water quality issues with Defender filters and other brands that utilize similar functionality. Is this something that will be addressed moving forward?

Howard Stephenson
(503) 906-8100
PO Box 23788, Portland, OR 97281

From: Marcie Wily
To: Public Health Rules
Cc: Mark Hickok; Allison Kriskewic; Anthony Johnston
Subject: Public Comment on OAR 333-060 and 333-062 Aquatic Facility Rule Update
Date: Tuesday, February 25, 2025 4:39:11 PM

Brittany Hall, Administrative Rules Coordinator
Oregon Health Authority
Public Health Division
800 NE Oregon Street
Portland, OR 97232
Subject: Public Comment on OAR 333-060 and 333-062 Aquatic Facility Rule Update

To Whom It May Concern,

Hood River Valley Parks and Recreation District (HRVPRD) strongly objects to the process by which the Oregon Health Authority (OHA) has pursued revisions to OAR 333-060 and 333-062—specifically, the adoption of the 2023 Model Aquatic Health Code. While we fully support efforts to ensure public safety at aquatic facilities, the lack of transparency and stakeholder engagement in this process is deeply concerning.

HRVPRD is an active member of the Oregon Recreation and Parks Association (ORPA), where aquatics professionals regularly convene to discuss best practices and industry standards. However, OHA has not engaged with ORPA or its aquatics professionals to review the proposed standards or assess their practical impact on public pools across the state. Without this critical input, the proposed regulations contain contradictory, confusing, and redundant requirements that would be nearly impossible for many facilities—including ours—to meet. If enforced as written, these new rules will force the closure of pools statewide, depriving communities of essential recreational, educational, and therapeutic resources.

Our facility currently complies with OHA standards, and we are fully committed to adopting reasonable, evidence-based updates that enhance safety and operational efficiency. We want to be part of the solution. Therefore, we urge OHA to extend the public comment period and establish a panel of aquatics professionals to review and

refine the proposed regulations collaboratively. Greater transparency and a willingness to incorporate industry expertise will ensure that any regulatory changes are both effective and feasible.

Public pools are closing at an alarming rate nationwide, and Oregon cannot afford to follow this trend. Pools like ours are irreplaceable community assets that promote health, safety, and recreation for residents of all ages. We share OHA's goal of maintaining the highest safety standards, but overly burdensome and impractical regulations will only accelerate pool closures, ultimately undermining the very public health benefits these facilities provide.

We appreciate your attention to this urgent matter and look forward to meaningful engagement with OHA to develop practical, sustainable solutions that keep pools open and safe for Oregon communities.

Sincerely,

Marcie Wily
Assistant Director

Allison Kriskewic
Aquatic Center Supervisor

Anthony Johnston
Maintenance Supervisor

Marcie Wily, Assistant Director
Hood River Valley Parks & Recreation District
1601 May St | Hood River, OR 97031
w:541.386.5720, ext. 5391

Limited Use pool and Spas

Preface:

With the tentative adoption of the modified MACH rules to replace the OAR 333-060 and 333-062 there is a need to recognize and regulate limited-use Public Swimming Pools and Spas separately from General Use Pools and Spas primarily focused on by the MACH rules. Where MACH rules are more focused on for profit aquatic venues, Limited-use pools require a companion facility, many of which are often nonprofit organizations. OHA rules are estimated to cover approximately 6000 facilities in the state, and it is estimated that up to 1/3 or 2000 installations may fall into this category.

The advisory committee is charged with helping to develop a code that is **reasonable** and **implementable** by industry and public health authorities. Many of these installations have budgetary constraints, have operated without incident for many years, and are vital to maintaining lifestyle in smaller communities. This impacts both the physical and mental health of the residents and members. New facilities are at times mandated to incorporate a social/physical center for the residents.

The objective is to maintain the health and safety of the users to the water quality standards referenced in OHA and MACH, ensure that equipment and communication is available for necessary emergency situations, and facilities are operating in safe conditions that allow use by patrons. With technical advances in automatic water chemical monitoring systems for water quality, WIFI and Telephone connectivity for monitoring and safety, and reliance on patrons to rapidly report to an available resource any issues: it potentially alleviates the necessity for short period monitoring and redundant outside contracted examination that has become costly for many of these installations.

Definitions OAR 333-060 and OAR 333-062

(15) "Limited-use Public Swimming Pool" means any public swimming pool located at and operated in connection with a companion facility such as a residential housing facility having five or more living units, travelers' accommodations, mobile home park, recreation park, boarding school, organizational camp, dude ranch, club or association where use of the pool is limited to residents, patrons or members of the companion facility.

(10) "Limited-use Public Spa Pool" means any public spa pool located at and operated in connection with a companion facility such as a residential housing facility having five or more living units, traveler's accommodations, mobile home park, recreation park, boarding school, organizational camp, dude ranch, club or association where use of the pool is limited to residents, patrons or members of the companion facility.

Potential variances from the MACH and current OHA code.

1. With an automatic chemical monitoring system that exceeds the current 4 hours for pools and 2 hours for spas, weekly verification (in person or electronically) of operational status would meet the water quality standards and testing requirements. From CA HOA rules “Daily testing may

be performed “using a properly calibrated automatic chemical monitoring and control system”

2. Most of these installations post that “no lifeguard on duty” signage, could also post signage if that if hazard (biological or physical) is observed in the water facility or area to report it immediately to posted responsible party. This could be pool service, property manager, or other responsible party. Emergency telephones need to be installed in the area and emergency phone numbers posted. This would mitigate the requirement for contracted outside 4-hour inspections.
3. Facility needs to be maintained in good repair and where an issue arises that does not significantly compromise health or safety, issue should be scheduled for repair in a prudent manner.
4. Recognizing the need for multiuse of areas for small facilities and homeowners’ association the following shall apply.
    a. No food or drink shall be allowed in the pool or spa
    b. No food or drink allowed withing the safety perimeter (4 or 8 feet) of the pool or spa.
    c. No glass or breakables shall be allowed in the pool area.
    d. No competitive activity or play shall be allowed withing the enclosed pool area.
    e. BBQ facilities and food are allowed beyond the safety perimeter provided there is adequate facility to dispose of trash and any residual contamination that might impact the water. Cooking facilities must be at least 10 feet from the safety lane.
5. Fencing, gates and access should reasonably comply with specifications and intent of the General Pool and Spa rules.
6. Construction and equipment regulations need to be compliant with General Public Pool regulations. Acceptable alternatives may be considered if they meet the intent of the requirements and offer equal or better results.

From: Jayme Gallenson
To: Public Health Rules
Subject: Comment of revision and suggested language
Date: Friday, January 17, 2025 1:15:18 PM
Attachments: Limited us pools and spas.docx

One of the key benefits of automatic dosing systems is that they micro dose the chemicals eliminating the need to have people out of the facilities until the chemical completely incorporates into the system.

Spa water change for limited use pools and spas should be every 120 days or as needed.

Thanks

Jayme

From: Jeff Fryer
To: Public Health Rules
Subject: Comments Regarding the Proposed Changes to Public Pool Rules
Date: Tuesday, February 25, 2025 12:54:52 PM
Attachments: image.png

Greetings . . .

A couple of comments regarding the repeal of the existing Oregon Health Authority (OHA) Oregon Administrative Rules for Public Swimming Pools in favor of adopting the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services, 2023 Model Aquatic Health Code (MAHC), 4th Edition.

1. If the OHA desires to adopt the Model Aquatic Health Code (MAHC), why is the OHA choosing to adopt the 2023 Model Aquatic Health Code (MAHC), 4th Edition when the a newer 5th Edition of the MAHC was released December 16, 2024?

2. It has been incredibly difficult reviewing the proposed rule changes in the format provided
- https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RECREATION/POOLSLODGING/Documents/Aquatic%20Facility%20060%20and%20062%20User%20Document%20DRAFT%20for%20Web.pdf.
The document has several different colors used for the various section heading, i.e.,

4.1 Plan Submittal
4.1.1 Plan Submittal
4.1.1.1 Purpose

Unfortunately, I have not been able to find a "key" to explain what the various colors indicate.

3. Will there be any additional opportunities for "written comments"? Will there be an opportunity to review the entire proposed document (with whatever changes occur as a result of this current "written comments" period) prior to the document being "adopted"?

Thank you for your consideration of these comments.

Jeff Fryer, CPO
Pool Operator
Student Recreation Center
PE & Rec
University of Oregon

From: jstate@nctss.org
To: Public Health Rules
Subject: OHA Implementation of MAHC
Date: Thursday, January 23, 2025 2:01:17 PM
Attachments: image002.png
image003.png
image004.png
image005.png

Good Afternoon,

In reviewing the new materials you have put out for the implementation of the MAHC in Oregon, I found some issues you may want to address.

In the document for acceptable lifeguard certification: (see below)

Oregon Public Swimming Pool Lifeguard Certification Equivalency

Oregon Standard		
Oregon Health Authority, Food, Pool & Lodging Health & Safety		
Public Swimming Pool Program – Lifeguard Certification Requirements	OAR 333-060-0015(14)&(22) OAR 333-060-0207(2)	
Lifeguard Certifications Referenced by Oregon Rule*		
Provider	**Certification Title**	**Cert. Period**
American Red Cross (ARC)	ARC - Lifeguard Training[1] (Separate CPR Cert.)	3 yrs.
Young Men's Christian Association (YMCA)	YMCA – Lifeguarding[1]	2 yrs
Ellis & Assoc. – International Lifeguard Training Program	ILTP – Pool Lifeguard Training[2] (includes CPR, 1st Aid)	1 yr.
Starfish Aquatics Institute	StarGuard[3] (includes CPR, 1st Aid)	1 yr.?
Additional ACCEPTED Lifeguard Training Courses, Certifications, or Licenses*		
Provider	**Certification Title**	**Cert. Period**
American Red Cross (ARC)	ARC - Waterpark Lifeguard[1] or ARC - Lifeguard with Waterpark Module[1]	3 yrs
	ARC – Waterfront Lifeguard[1] or ARC – Lifeguard with Waterfront Module[1]	3 yrs.
	ARC – Lifeguard Instructor[1]	2 yrs
American Lifeguard Association (ALA)	ALA - Lifeguard[6]	3 yrs
Boy Scouts of America (BSA)	BSA – Lifeguard[5]	3 yrs
	BSA - Lifeguard Instructor[5]	?
Ellis & Assoc. – International Lifeguard Training Program (ILTP)	ILTP – Pool Special Facilities Training[2]	1 yr.
National Aquatic Safety Company (NASCO)	NASCO – Basic Lifeguard NASCO – Deep Water Waterpark Lifeguard	unkwn
Starfish Aquatics Institute	Wilderness StarGuard[3] (includes CPR, 1st Aid)	1 yr.?

All certifications only valid with current 1st Aid and professional level CPR (CPR must include AEDs, bloodborne pathogen training).

[1] These courses issue separate certifications for CPR. 1st Aid Certification is included in Lifeguard Certification
[2] ILTP issues a 1-year license. Licensing includes professional rescuer CPR and 1st Aid as part of their certification.
[3] Starguard certification includes professional rescuer CPR and 1st Aid as part of their certification
[5] Requires separate CPR and 1st Aid Certifications
[6] A qualified ALA Lifeguard must also have the ALA Certification for CPR/AED for the professional rescuer or equivalent.

1. Boy Scouts of American (BSA) is no longer BSA. They are now "Scouting America". Additionally, they have dropped the BSA Lifeguard, which has no expiration date and is a merit badge. So this will not be accepted by pools and is not a program that Scouting America still has.
2. American Lifeguard Association(ALA) has not been accepted by the CDC as a provider for Lifeguarding and is not a trustworthy organization. As a pool manger I would not hire anyone with this certification as they do not require in person sessions of skills to get the certification. In aquatics circles ALA is considered a scam.
3. The American Red Cross Lifeguarding is only a two year certification not a three.

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From: Jim Zupancic
To: Public Health Rules; Nagamine, Taku
Subject: Comments on OAR 333-060 and 333-062
Date: Monday, February 24, 2025 9:22:15 PM

Dear Oregon Health Authority:

I am President of the Oregon Health & Fitness Alliance (OHFA), a nonprofit association of over 300 private health and fitness facilities located in Oregon, many of which operate pools and spas. These are private membership based facilities that are not generally open to the public.

I appreciate Mr. Nagamine attempting to call me back. I left a return message for him earlier today. Unfortunately, a family emergency requires me to travel tomorrow.

These proposed regulatory changes appear to be substantive and broad. I have not had the opportunity to review them in detail.

However, on behalf of OHFA, we categorically state that we have serious concerns with any changes that would materially change the way we are required to operate our pools/spas, including but not limited to the use of lifeguards.

It appears that these proposed regulations were developed without the input of our industry members – a key group that operates commercial pools and spas.

Therefore, we propose that this rulemaking process be delayed for a time to allow for further input by our association. We are more than happy to participate if given the invitation.

We assume that these proposed changes are all made in good faith. But we cannot accede to these changes without fully understanding their impact on operations, and we cannot comment until we have a clear understanding of their scope and application. Currently, I am hearing much confusion within our industry concerning these rules.

Please accept this email as our official expression of serious concerns, and offer to help in the creation of workable rules. We respectfully request that the implementation of these rules NOT take effect March 1, 2025, but instead be delayed a reasonable time for our input.

I apologize that I could not speak with Mr. Nagamine today and I look forward to his call back this week.

Thank you,

JIM ZUPANCIC
CHAIRMAN & GENERAL COUNSEL
STAFFORD HILLS CLUB
P: 503-277-9906
5916 SW Nyberg Lane, Tualatin OR 97062
W: www.staffordhills.com
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From: John Mason
To: Public Health Rules
Subject: Comments on new Pool / Spa code
Date: Monday, February 3, 2025 1:56:39 PM
Attachments: image001.png

Dear Oregon Health Authority.
Below are my comment to improve the rule language as the State adopts the new pool/spa code. I am taking this time to present some ideas that I think will make the code better for both operators and inspectors.
Thank you for your consideration.
These are edits or change suggestions for the new swimming pool and spa code.. Suggested edit to the Aquatic Facility Rules Update Significant Changes document starts at #11

1. Does the new code address the latest aquatic vessel, the ""cold plunge"" unit? These are like back yard/portable spas, but with a water chiller. Per the Glossary of Terms 2.0 E "**SPA**" states .....structure intended for either warm or cold water where prolonged exposure is not intended. In the OHA interpretation, does this term 'spa' capture the free standing cold plunge units that are the new fad?
2. Please create or add a **subject index / Table of Contents** so that pool rules / corresponding page number can be looked up and easily found or referenced. This should be installed at the very beginning of the rule's manual and before the definitions.
3. Under "Pool" I would like to see another designation of pool, the '**training pool'**. A training pool is used for teaching swimming lessons and has lower operational restrictions due to the fact that a licensed instructor must be present and only a limited number of students is allowed. Suggest 1 teacher per 3 students. This would be similar to the "Therapy" pool description, but for teaching swim lessons. This may also fall under the definition of "Private swimming pool" This may have to wait till the

next code cycle, But I think this idea should be examined more thoroughly.

4. **4.9.1 and under plan review** Minimum area of the pump room per aquatic venue. Currently the rule states '*The size of the EQUIPMENT ROOM OR AREA shall provide working space to perform routine operations and equipment service'.* Owners and designers will try to provide as small (and inexpensively) a pumproom as they can to save money. A crowded pumproom makes it hard to repair equipment and is discouraging the pool maintenance staff. Suggest the State sets some kind of minimum footprint for the pumproom. Suggest 65 sq feet of floor space per vessel…. Or something similar.
5. Design Parameters **4.2.1.5[a] & Color and Finish 4.5.11.1.2** Suggest setting a percentage of the pool bottom and or side walls that can be used for graphics. Suggest something like " No more than 15% of the bottom and side walls of the interior of the vessel shall be taken up in design \ logo graphics". Note, this is a separate requirement from contrasting color required to show a visual separation between the pool and a submerged shelf/tanning shelf.
6. **4.5.4.9 Exterior Steps** It is understood that the interior steps of a pool or spa are under the control of the pool code. But the exterior steps are under the control of the building division code. But I think this is a disservice to our patrons and could lead to trips and falls. If the exterior steps into a raised spa have a rise of 8 inches (per building code) and the interior steps have a rise of 12 inches, this will lead to confusion by patrons. The patron going into the spa will base the height of the interior steps on the rise he/she has just experienced on the way up and into the spa. Now that we have crossed the arbitrarily boundary of the spa coping, the rise height of the steps can change to 12 inches per code. Work with building code agency to have all steps related to a raised vessel under the pool /spa code. Suggest language be added that says "All steps leading into and out of a raised vessel shall have an equal rise".
7. **4.5.19.9.2 Signage** This rule requires a sign that states the depth varies in the pool or shows the depth in profile ? I feel this will be a distraction. This is an unnecessary sign. Depth markers on the deck and on the tile line are sufficient to inform the users of the depth changes in

the pool profile. Remove this requirement.

8. **Variances are not transferable**. The new owner of the vessel should be required to reapply to the OHA or AHJ and thereby reaffirm that the new operator understands the mitigations required.
9. **Failure to maintain an active license for 2 consecutive years is grounds for a plan review at the discretion of the AHJ.** This is similar to what we already require for restaurants. An example of when this could be helpful would be when an old hotel has been purchased by a new owner that is willing to pour money into room renovation but is not willing to update the failing pool equipment. If we are allowed to insert this 2 year idea into rule, we can get the pool circulation, filtration and chemical feed system up to date and be in position to better handle the 'new and improved' bather load that comes with the "new' hotel remodels.
10. **pH 5.7.3.4.1 pH Range** *The pH of the water shall be maintained at 7.0 - 7.8*. Per the CPO manual, at a pH over 7.5, less than half the free chlorine is in the active killing and oxidizing from or Hypochlorous Acid. This means that the operator is putting in a dollars' worth of chlorine and at a pH of 7.8 is only getting 33% of work/ 33% of the chlorine in the active, killing form. This is a disservice to the operator and reduces the probability of protecting public health. Recommend setting the **Maximum** pool and spa **pH** at 7.6.

11. **Per the Aquatic Significant Rule Changes for Operates 5.4.1.1.2** Closure of Venue <u>without enclosure</u> (example splash pad) In this example OHA gives the example as a splash pad. A splash pad does not pool water, and an enclosure is not required. But in this interpretation, the comments state in section 1 and 2 "Venue shall be staffed to keep bathers out" In #3 there is the requirement to provide an enclosure that meets code <u>or</u> #4 requirement for a safety cover. BUT in 5.4.1.1.3 states that Aquatic Venue without an enclosure and closed to the public must; … recirculate and treated…. Or drained. Again, this does not appear to make sense. Please provide more information or examples.
12. **6.4.1.6 Daily water monitoring**.
    a. (6) Would you please provide some examples of what the code is talking about for this equipment check?

b. (7) checking the flow meter on the O.R.P. feed system daily seems excessive. Currently I ask staff to test the flow sensor monthly. Suggest making this a monthly test and not a daily 'opening' test.
c. (12) Saturation Index (S.I.) S.I. is rarely checked on a daily basis. S.I. is more of a guideline for managing the venues water quality based on the incoming water characteristics (hard water …) The information provided by calculating the various water quality parameters to reach the S.I. can change hour by hour. The request to test S.I. daily is asking too much. Suggest quarterly for this parameter or if the water source changes.

13. **4.1.3.2**. Double check the wording in the summary.

John Mason REHS
DESCHUTES COUNTY PUBLIC HEALTH SPECIALIST
2100 NE Wyatt Ct | Bend, Oregon 97701
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Email; johnm@deschutes.org
Pool Web page; www.deschutes.org/pools
Our Mission: To Promote and Protect the Health and Safety of Our Community

From: John Miller
To: Public Health Rules
Subject: Testimony on new proposed pool rules
Date: Thursday, February 20, 2025 4:17:13 PM

Below is copied a message I also sent directly to Takuho.

In brief, here are my concerns.

1. I know I was asking you to speak off the cuff, but from the participants you listed it did not appear that the For-Profit Fitness sector was represented on your advisory committee. The number of pools operated by this sector in Oregon reaches into the multiple hundreds. Our perspective is uniquely focused on the operational aspects of the rules and would have been useful.

2. In seeking comment, OHA has not provided a summary of the changes to the operation rules. I was (by chance and luck) made aware of the change below.

> 6.3.2 Aquatic Facilities Requiring Qualified Lifeguards AQUATIC VENUES with standing water and with any of the following conditions listed in 6.3.2.1 shall be required to have a lifeguard(s) sufficient to meet the requirements of section 6.3.3.1 conducting PATRON surveillance at all times the AQUATIC VENUE is open. 6.3.2.1 A List of Aquatic Facilities Requiring Qualified Lifeguards Note: This list includes but shall not be limited to the following: **1) Any AQUATIC VENUE while it is being used for the recreation of youth groups, including but not limited to childcare usage or school groups; 2) Any AQUATIC VENUE while it is being used for group training must have dedicated lifeguards on DECK for class surveillance, sufficient to meet the requirements of 6.3.3.1, including but not limited to competitive swimming and/or sports, lifeguard training, exercise programs, and swimming lessons;** 3) Any AQUATIC VENUE with a configuration in which any point on the AQUATIC VENUE surface exceeds 30 feet (9.1 m) from the nearest DECK; 4) Any AQUATIC VENUE with an induced current or wave action including but not limited to WAVE POOLS and LAZY RIVERS; 5) Waterslide landing pools; 6) Any AQUATIC VENUE in which BATHERS enter the water from any height above the DECK including but not limited to diving boards, DROP SLIDES, starting platforms, and climbing walls. This includes POOL SLIDES that discharge into water depths deeper than five feet (1.5 m); and **7) Any AQUATIC FACILITY that sells or serves alcohol within the ENCLOSURE, during the periods when alcohol is sold or served.**

And from our conversation today, you pointed me to;

> 5.8.5.4.5
> 2) Youth and childcare groups, training, and swim lessons for persons under 14 years old are not allowed without a QUALIFIED LIFEGUARD providing PATRON surveillance.

However, a comprehensive memo pointing out *all of the significant operational changes* has not been provided.

3. I need clarification on the discrepancy between the two citations above. In the first, it seems to indicate that any group training requires a lifeguard. In the one you pointed me to it only addresses "training" for youth under the age of 14. It would be of great relief to me if the second was the accurate view, and to know that our discussion of new lifeguard requirements was limited to youth, (wherever the age is set).

4. The For-Profit Sector, even at this late date, would like to engage in a discussion of any rule changes pertaining to the requirement of lifeguards. We want to keep our patrons safe, as you do. But we also want to make sure any proposed change is actually going to solve a real and observed problem in our specific environment.

Thank you for your consideration.

1195 SE Kemper Way Madras, OR 97741 | ph: 541-475-4253 | macrecdistrict.com

February 15, 2025

OHA, Public Health Division
Attn: Brittany Hall, Administrative Rules Coordinator
800 NE Oregon St., Suite 930
Portland, OR 97232

RE: Proposed Permanent Rulemaking, OAR Chapter 333, Divisions 60 and 62

The Madras Aquatic Center Recreation District is located in Madras, Oregon and serves a population of approximately 17,000 residents. Our 27,000 square foot aquatics facility was built in 2006 and opened its doors in January 2008.

As the Executive Director of our organization, I function as the Chief Operations Officer, Chief Financial Officer, Human Resources Director, Public Records Manager, Facility Manager, Risk Manager, Certified Pool Operator (CPO), Lifeguard, and multiple other hats. I did my best to review the proposed rules, with a lens of both big-picture policy and managing the day-to-day operations of an aquatics facility. Unlike aquatics facilities within larger park and recreation agencies, we do not have multiple departments, staff, or consultants to help us evaluate impacts to our operations. Please accept the following as our effort to contribute to the rule-making process by representing small, rural, special districts who may not have the time or capacity to have a voice at the table.

General Comments and Concerns
We were not made aware of the proposed changes/rule making process until attending a Special Districts Association of Oregon conference with other park and recreation professionals on February 7, 2025, who brought it to our attention and shared the information provided by OHA. The lack of outreach is concerning, particularly for a small, rural special district who may be significantly impacted by the new rules, should they apply to existing facilities. While we do our best to conform with best practices, including the Model Aquatic Health Code, we do not have staff capacity to comply with all of the operational standards as outlined and would struggle to meet the requirements if put in place.

Specific Comments and Concerns
Operations and Maintenance.

- Section 5.4.2.1.1 (Preventative maintenance plan). While we recognize that maintaining a comprehensive maintenance plan is a best practice for all types of facilities, we have never had such a plan, nor do we have the

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resources sufficient to prepare a comprehensive plan in the coming year.

- Section 5.4.2.2.2 (Equipment inventory). While we recognize that maintaining a comprehensive asset management system of all facility equipment is best practice, we do not have sufficient resources, nor have we had the systems required, to maintain such a list. Our current asset records are maintained in steno notepads over the last 15-years, and would require a significant investment to centralize into as asset management system that would comply with the rules as presented.
- Section 5.6.3.6.1 (Extension cords and temporary connectors). During swim meets these temporary solutions are required to connect touchpads with timing equipment on deck. There must be an exception for this in the rule, as there are no alternatives that are available as a permanent solution.

Deck and Safety Considerations.

- Section 4.8.1.5.2.1 (Unobstructed deck). Please clarify if lifeguard chairs are allowable within the four-foot perimeter requirement.

Facility Staffing.

- Section 6.3.4 (Staff management). The entire section spelling out the duties and responsibilities of lifeguards, surveillance, and lifeguard supervisors creates a second layer of requirements for aquatics facilities who have certified lifeguards on their staff, as agencies adhere to the requirements of the certifying organization (in our case, American Red Cross). Each facility should have local control and autonomy to choose their certifying agency and align their staffing, training, and surveillance protocols as required. The State does not need to spell these requirements out in OAR and could instead reference the lifeguard certification body as providing guidance in these staffing matters.

Staff Training & Certification.

- Section 6.3.3.1.4 (Alternation of tasks). The language is overly restrictive and would significantly impact the off-rotation duties of lifeguards in our facility.
- Section 6.4.1.7-6.4.1.7.1 (Lifeguard certification records). We have concerns regarding employee privacy and compliance with the legally required public records request process.

Max bather load, Section 4.1.2.3.5.

- The formula is extremely complex, and as we did our best to calculate it, would restrict the number of swimmers to 183, which is significantly less than our approved building occupancy (375). This restrictive approach could have

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operational impacts to our revenue, staffing, and ultimately the services we provide to our communities.

As a small special district with limited staff, the expansion of the rules to include so many facets of operations is concerning. Most of the proposed rules are best practice; that does not mean that small organizations have the staff capacity, resources, or specialty knowledge to implement them if they are legally required.

We implore you to consider the impact of explicit operational legal requirements for small aquatics facilities and ask you to leave some semblance of local control to aquatics professionals across the State of Oregon.

Sincerely,

Courtney Snead
Executive Director

From: HODEL Martin M
To: Public Health Rules
Subject: New Pool Rules Comments
Date: Thursday, February 13, 2025 11:36:55 AM
Attachments: Outlook-EH-Acc-ema.png

To whom it may concern:

I have several comments/questions regarding the proposed pool rules.

- Under Imminent Health Hazards (6.6.3.1 (4)), p. 135, a violation of pH below 7.2 is listed as a closure item. There is a discrepancy with the acceptable range for pH of 7.0 - 7.8, listed on p. 103, (5.7.3.4.1).
- For Imminent Health Hazard (14) it states a closure is required for plumbing cross-connections between drinking water supply and aquatic venue water supply or between sewage lines and the aquatic venue water lines.
    - I am concerned I will not be able to properly assess a potential cross-contamination issue in a pool mechanical room, or elsewhere. Does this require extensive plan review of each facility to ensure no cross-connections exist?
- For violations of code that do not fall under the Imminent Health Hazards list how should an inspector handle the violation? Will some violations hold more importance and require reinspection, while other are simply noted in the inspection report with voluntary compliance being the goal?

Thank you,

Martin Hodel, REHS
Lane County Environmental Health
151 W. 7th Avenue # 430, Eugene, OR 97401
541-682-3057 office
458-221-8866 cell
541-682-7459 fax
Martin.Hodel@lanecountyor.gov

My regular office hours are 7:00 AM - 4:00 PM.

Visit us at [Lane County Environmental Health]

Date: February 25, 2025

To: Oregon Health Authority

From: Matt Mercer, Director of Recreation Services, Bend Park & Recreation District

Subject: Comments on Proposed Administrative Rules for Public Swimming Pools

We commend the Oregon Health Authority (OHA) for considering a full overhaul of the existing OARs for Public Swimming Pools and Public Spa Pools. The current OARs are in many cases out of date and the existence of separate OARs for pools and spas is unnecessary. We are also supportive of OHA referencing the 2023 Model Aquatic Health Code (MAHC) in developing the new code; we have used the MAHC for years as resource in determining best practices. However, we have some general concern with the new OARs being built off the MAHC, especially as it relates to 5.0 Operations and Policies and 6.0 Policies and Management.

The MAHC is very prescriptive which for new construction standards can be very beneficial as clarity and consistency is critical. But for operations and management practices it is much more difficult to have a one size fits all approach as different operating environments requires different considerations and there are often multiple ways to achieve the same safe results. As previously mentioned, we have looked at the MAHC as one of several resources to consider best practices. But should a code based on best practices, or should it be based on reasonable standards to ensure a safe experience for the public?

While our organization has the facilities, financial resource and staffing expertise to comply with the proposed rules, we believe that many others will struggle to meet the demands of the proposed code. We are also concerned that the local health departments have the resources to consistently support and ensure compliance with the code. While we have a strong working relationship with our local health department, the proposed changes will require additional time and resources for local health departments as well as operators.

Understanding that the OHA is unlikely to reconsider using the MAHC template, we offer the following comments and question specific to 5.0 and 6.0 which would presumably apply to existing facilities.

5.4.2.1 – A comprehensive preventive maintenance plan as prescribed may be a best practice but there are multiple methods of having a good preventive maintenance plan.

5.4.2.2.4 – Many manuals are now made available and updated online. Does this suffice as electronic copy?

5.4.3.1. – The maximum bather load referred to is in the new construction section. What maximum bather load applies to existing facilities? The load they were originally approved under?

5.5.5 – The depth marking refers to the new construction section? What applies for existing facilities?

5.6.3.6 – Does this mean that you cannot use extension cords for temporary use such as swim meet timing and sounds systems even if they are at least 6-feet away from the water? This would be very restrictive for special events such as competitions.

5.6.7.4.2 – Does this discharge volume apply only as needed to maintain water quality as stated in 5.6.7.4.1 or does this mean ongoing, everyday? Alternate system refers to new construction section.

5.7.1.1.1.1 – Does this minimum apply when pools are closed for the season and water is kept in the pool? Why would you not be able to turn down more so long as you maintained adequate flow to maintain free chlorine and pH levels during a winter closure for example?

5.7.2.2.4.1.2 – Why delete backwashing when bathers present? This can be done without compromising safety if done correctly. Not being able to do this does not allow the operator to respond appropriately when conditions such as high bather loads require. Not allowing may result in reduced sanitation and equipment issues due to overloaded system.

5.7.3.1.1.2 – Why do we continue to rely on Free Chlorine levels instead of ORP. We often end up increasing out ORP incrementally just to maintain minimum free chlorine levels. Conversely, we know that minimum Free Chlorine levels can often be inadequate as indicated by low ORP levels.

5.7.3.1.1.2.3 – Minimum 3.0 in spa with UV or ozone seems excessive. Can there be a provision for lower minimum with UV or ozone.

5.7.3.4.1 – acceptable pH range is identified as 7.2-7.8 under 6.6.3 Imminent Health Hazard. Is the low end 7.0 or 7.2?

5.7.3.5.1.2.1 – There should some reasonably time provided for an operator to assess and restore operations before evacuating the pools. Many times, this is the result of a momentary power surge, obstruction in the flow cell paddle wheel or something else very simple that can be corrected immediately. Suggest that if operations can not be restored within 10-minutes, pool will be evacuated.

5.7.3.5.7.1 – What is meant by areas where staff work? Is this required for existing operations?

5.7.3.6.1.1 – Does this mean that you are expected to record the expiration dates for reagents every time you test? This seems unnecessary. Can you just say that Reagents shall be checked to ensure they are not expired or have them checked when a new box or bottle is opened?

5.7.3.7.8 – UV System recording frequency. Does this mean recording on a paper or electronic log? Why is this necessary when the systems have an internal data log?

5.7.4.4.3 – There appears to be no minimum calcium hardness. This is a positive change from having a minimum which serves little purpose in some pool and mechanical system types.

5.7.5.4 – Is it necessary to manually record ORP readings at same time as water tests if controller has continuous data log. Same question for water temperature which may be continuously logged through pool controller or other control system.

5.8.5.2.1.3 – Does a telephone need to be assessible to users when the facility is continuously lifeguarded and supervised and has alternate communication system is in place including radios, cell phones and EAP that specifically identifies how 911 is called. We understand why this would be required in unguarded facilities, but do not see patron accessible land lines as necessary or even desirable in fully staffed public aquatic facilities and if anything would cause confusion and nuisances.

5.8.5.2.3 – The sign requirements in this section seem to apply more to unsupervised or partially supervised facilities. Are these signs required even if facility is continuously staffed with lifeguards and supervisors who are responding to emergencies, providing first aid and activating EMS. Signs would suggest that patrons should take matters into their own hands when we have trained staff and protocols in place to respond to emergencies and could cause confusion over how to respond.

5.8.5.2.3.4 – Are posted hours of operation for the facility as a whole sufficient or do you need to have specific hours posted for the pools, even though access to pools is controlled whenever the facility is open. This may seem simple but in many facilities pool hours change frequently.

5.8.5.3.10-11 – is this saying that if you have only one lifeguard you need these but if you have more than one you do not? Or should it read one or more qualified lifeguard.

5.8.5.4.3 – Similar to previous comments, are CPR posters required for facilities where lifeguards are always present to respond to emergencies.

5.8.5.4.4 – Does Imminent Health Hazard Sign need to be posted in continuously supervised pool where staff is always on hand to determine if and when to close a pool. This a list of at least 20 items, many of which are technical and would not be understood by most people. If necessary, there should be some sort of standard.

5.9.1 and 5.9.2 – here is a lot of overlap with OSHA requirement creating the need to reference two different sets of guidelines and creating the potential for inconsistencies

6.0.1 – This appears to pretty much duplicate OSHA requirements. Would it be better to refer to OSHA rather requirements rather than having in two places, again creating the potential for inconsistencies?

6.3.3.1 – The are many different organizational ways to handle the responsibilities listed here and in subsequent codes other than creating a specific Safety Team with these responsibilities. It should be up to a facility to design a staffing plan that ensures compliance. It is also confusing to go back and forth between a safety team and lifeguards. 6.3.3.3.1 and 6.3.3.3.2 both also refer to specific safety team. Recommend that the code identifies minimum requirements in a safety plan and allows the venue to determine how best to implement this in their specific organization.

6.3.4.3.1 – All previous and subsequent requirements of lifeguards are based on zone surveillance and response times. This should define the minimum number of lifeguards and not a number or patrons. This should not require health department approval as the standards are very clear.

6.3.4.7 – Most employers have extensive policies addressing employee illness and injuries including compliance with OSHA, BOLI and others.

6.4.1.3.1 – Can logs be electronic? Does every item need to be individually logged or can you log that the inspection was complete and note any observations and actions?

6.4.1.4.3 – Does this include incidents at venues that are not aquatic related. For examples, fitness center, group exercise rooms, deck and dryland activities?

6.4.1.5 - All chemicals on site should already be listed in the hazardous materials list. Previous code requirement already asks that expiration dates be checked and logged when using.

6.4.1.6 – Attendance is not as simple to provide as it appears. Many facilities are multi-purpose with patrons frequenting a variety of amenities and not just pools. Pool visits also often come from a variety of sources that don't go through standard check in processes including swim teams, swim lesson participants, etc. What is the purpose and necessity of this?

6.4.1.7 – Many licenses are now web-based including lifeguard licenses. Public should have to go through an open records request to see individual licenses,

6.4.2.2.3.3 – Is there a standard for this?

6.6.3.1 4) pH below 7.2 versus 5.7.3.4.1 where it is 7.0.

General Comments

We encourage the OHA to consider the volume of "plans" and "manuals" identified in the proposed code. Some include: Preventative Maintenance Plan, Safety Plan, Code of Compliance Safety Plan, Zone Plan, Emergency Action Plan, Emergency Response and Communications Plan, Accidental Chemical Release Plan, Facility Evacuation Plan, Communication Plan, Inclement Weather Plan, Contingency Plan Operations Manual., Maximum Occupancy Plan, Contamination Response Plan. While much of the content of these plans is understandable, they level of overlap and specificity of some of the plans is burdensome and confusing. It would be much simpler to create a list of required plans and procedures that need to be included in a facilities operation plan and allow operators to determine the most effective and efficient manner to organize their plans.

Related to the plans, we encourage the OHA to consider the number of checklists, logging and documentation that is required. Many systems and operations have continuous data logging and maintenance and operations work increasingly rely on digital and web-based technology.

We also encourage the OHA to consider the volume and necessity of required signs, especially in continuously lifeguarded facilities where some of the sign requirements are inconsistent with emergency responses.

Finally, it is critical to clarify which sections of the new rules that existing facilities are subject to (presumably Sections 5 and 6) and what sections would only apply to new construction (presumably Section 4). Additionally, it is important to define the level of alteration required in order for an existing facility to be subject to Section 4.

Thanks for providing the opportunity to review and comment on the proposed code. I would be happy to discuss or clarify any of my comments or questions.

Sincerely,

Matt Mercer
matt@bendparksandrec.org
541-706-6103

From: LUEDTKE Matthew D
To: Public Health Rules
Cc: Land Kelby N
Subject: RE: MAHC adoption/new rules comment.
Date: Thursday, February 13, 2025 10:53:48 AM
Attachments: image001.png

Hi,

I have input regarding the new Cyanuric Acid rules; generally that they need to be more restrictive and have less loopholes.

I would suggest that Cyanuric Acid concentrations over 40PPM should warrant a violation, and Cyanuric Acid concentrations over 60ppm should result in pool closure.
I would also suggest removing the language allowing pools with excessive Cyanuric Acid concentrations to operate as long as they have specific minimums of free chlorine. That language will inevitably prevent FPL staff from actually getting CYA issues corrected at pools they inspect, and will point operators in the wrong direction when addressing the public health risk.
I do remember Taku and others explaining the rationale behind the decision to compromise on CYA regulation, but I disagree that this type of compromise is the best way forward. Accumulated CYA leads to a variety of other issues, and continuing to pretend that concentrations above 40/50ppm are OK is a mistake.

Also, there are many pool operators in Lane County that are unclear on expectations for the new rules and timelines for compliance.
I would suggest changing the phrasing of this new rule implementation. If we want to describe things accurately, we would state that we are updating the
Oregon Pool Rules, and that they are BASED on the MAHC. We are not actually adopting the MAHC, because there will be differences. Just the same way that the Oregon Food Code is based on the FDA code. I know there are technicalities involve with phrasing it that way but it's giving the wrong impression to operators that they will need to meet all of the expectations of the MAHC by March.

Matthew Luedtke
REHS
Lane County Drinking Water Lead,
Food/Pool/Lodging Program

541-682-7462

PUBLIC HEALTH

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From: Naomi R. Driscoll
To: Public Health Rules
Cc: Jesse R. Nyberg
Subject: Lifeguard Certification period
Date: Friday, January 17, 2025 6:04:38 PM

Hello,
I have reviewed some of the revisions for the Public Pool and Tourist Facility Program, OAR 333-060 and 333-062 - Aquatic Facility Rule Update - Adoption of the 2023 Model Aquatic Health Code.
Under Oregon Public Swimming Pool Lifeguard Certification Equivalency there are some discrepancies.
American Red Cross (ARC) Lifeguard Training for all forms is a 2 year certification, not 3 years.

"Upon successful completion of the course, you will receive a certificate for lifeguarding, Shallow Water Lifeguarding or Aquatic Attraction Lifeguarding that includes CPR/AED for Professional Rescuers and First Aid and is valid for 2 years." - American Red Cross Training Services Lifeguarding Manual Revision 2024 To the Participant xiv.

Is the state wanting to increase the time a certification is good for, or was this an error in research?

Respectfully,
Naomi Driscoll, LGI, CPO| *Recreation Supervisor*
City of Medford, Oregon | Parks, Recreation & Facilities Department
901 N. Rossanley Drive, Medford, OR 97501
Ph: 541-774-2492| Fax: 541-774-2560
playmedford.com |sportsmedford.com |Facebook |RogueX (roguexmedford.com)

February 25, 2025

Brittany Hall, Administrative Rules Coordinator
Oregon Health Authority
Public Health Division
800 NE Oregon Street
Portland, OR 97232

Subject: Public Comment on OAR 333-060 and 333-062 Aquatic Facility Rule Update

To Whom it May Concern,

On behalf of the Oregon Recreation and Park Association, I appreciate the opportunity to provide public comment on the recently proposed changes to OAR 333-060 and 333-062. We recognize the Oregon Health Authority's commitment to ensuring public health and safety, and we share your dedication to these goals. However, we are deeply concerned that these changes could lead to pool closures across the state. This would affect thousands of Oregonians, including those in small or rural communities with limited recreational services. Given these impacts, **we strongly urge OHA to provide additional time for ORPA to review and provide meaningful feedback**.

The Oregon Recreation and Park Association (ORPA) represents over 2,200 members, including park and recreation professionals, pool operators, programmers, lifeguards, swim instructors, and facility managers. Our members work in the public sector, serving communities across Oregon. We support professionals who provide essential public services, ensuring aquatic facilities remain safe, accessible and well-managed.

Many of our members did not receive timely communication about these proposed changes, only learning about the public comment period on or after January 18. Public notification after the comment period has begun does not provide fair feedback time. Even with an extended public comment period from February 4 to February 25, a review of this magnitude simply cannot be undertaken. This lack of early notice raises concerns about transparency and stakeholder engagement.

The proposed guidance introduces significant changes that could have wide-ranging effects on staffing capacity, repair of existing facilities, and delivery of in-water programs. If implemented as written, financial and operational constraints could force pools to close. **This would disproportionately affect children learning to swim, seniors relying on aquatic therapy,**

and individuals who depend on pools for social and physical well-being. We cannot emphasize enough that pool closures across the state would be devastating. We want to avoid this very real possibility by working together to create safe, reasonable, and clear rules.

Given the complexity and potential implications, **we are requesting an extended review period of March 31, 2025** to allow stakeholders to fully assess the proposed changes, gather data, and develop well-informed, constructive feedback.

Our organization is eager to collaborate with the Oregon Health Authority to ensure that any revisions are both effective and practical. By granting an extension for public input, we can work together to refine these regulations in a way that supports public health while also addressing the operational realities faced by those impacted.

We appreciate your consideration of this request and look forward to continued collaboration on this important matter. Please do not hesitate to reach out if further discussion would be helpful.

Sincerely,

Amanda Parsons
Executive Director
Oregon Recreation and Park Association
director@orpa.org
503.534.5673

From: Paul Coulter
To: Public Health Rules
Subject: Water Chemistry Comments on Model Aquatic Health Code Adoption
Date: Tuesday, February 25, 2025 9:31:19 AM

I am excited to see Oregon consider the adoption of the Model Aquatic Health (MAHC) code as a much needed update to the state's current regulations. At the same time, however, the MAHC (and much of the pool and spa industry for that matter) is still far behind current scientific understanding on a multitude of water chemistry topics. I see this as an opportunity for Oregon to pioneer the way forward with a slightly modified version of the MAHC that recognizes some of the scientific realities that the rest of the industry has yet to fully acknowledge.

Throughout these comments, I reference specific sections of the MAHC draft that the Oregon Health Authority made publicly available. The draft I worked off of is available here: https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RECREATION/POOLSLODGING/Documents/Aquatic%20Facility%20060%20and%20062%20User%20Document%20DRAFT%20for%20Web.pdf

pH

5.7.3.4.1 and 6.6.3.1 define a maximum acceptable pH of 7.8. The idea behind this requirement is that the main disinfecting molecule in free chlorine, hypochlorous acid, undergoes an equilibrium reaction at higher pH levels and becomes hypochlorite ion instead, which is a significantly less powerful disinfectant. While this is true, it takes very little hypochlorous acid to provide sufficient background disinfection. 30 PPM of cyanuric acid and a pH of 7.5 leave only 1.5% of the free chlorine in the form of hypochlorous acid, yet it provides adequate disinfection nonetheless. By contrast, at a pH of 8.4 and no cyanuric acid present, the hypochlorous acid concentration is around 10%. And when cyanuric acid is present, pH has far less influence on the hypochlorous acid concentration, to the point of being almost negligible. [1] [2]

Drinking water standards often allow a maximum pH of 8.5, recognizing that free chlorine is still effective at this pH [1]. And regarding skin and eye irritation, studies have shown that no irritation occurs for pH values as high as 9.0 [1]. Low pH can cause skin irritation, but not high pH. In fact, having a high pH might even reduce skin and eye irritation because nitrogen trichloride formation is much less frequent at a higher pH [11] (more on nitrogen trichloride in another section).

I propose that the maximum standard for pH in 5.7.3.4.1 be set to 8.3. This is a good practical maximum for a couple of reasons. First, phenol red, the most commonly used pH indicator for pools, stops changing color above a pH of 8.4. This means that a pH of 8.5, 9, or even 10 would all appear to be 8.4 and could not be truly identified without using a different testing method [3]. Second, 8.3 is the lowest pH that can reasonably be maintained using a containment strategy. 5.7.4.4.1 sets the minimum total alkalinity to 60 PPM. This is necessary, if nothing else because lower levels of total alkalinity can allow pH indicators to themselves change the pH of a sample [3]. At 70 PPM of carbonate alkalinity, 8.2-8.3 is the maximum pH that water can reach via natural aeration (e.g., from a spa's hydrotherapy jets) [4]. Containing pH to a lower ceiling would require a lower level of carbonate alkalinity, which could raise concerns about testing accuracy and large pH fluctuations due to the low alkalinity. Containment is the ideal strategy for pH management because it does not require fighting with the pH using constant additions of acid to keep it in an unnaturally low range (e.g., 7.2 to 7.8), but overly restrictive health codes have made a pH containment approach impossible to implement for commercial pools and spas.

I also propose that the immediate remediation criterion for pH in 6.6.3.1 be set to 8.5. A pH above 8.5 is where concerns over adequate disinfection begin to become credible. The same pH ceiling analysis shows that the pH won't exceed 8.5 even with 120 PPM of carbonate alkalinity, which is the the top end of the "ideal" range for total alkalinity commonly accepted in the industry. Additionally, while the use of a hypochlorite product to replenish free chlorine could raise the pH above its ceiling, the pH will fall back down as the free chlorine is consumed and converted to hydrochloric acid and then to chloride [5]. Therefore, it's unlikely that water will exceed its calculated pH ceiling by very much, and it's unlikely that venues will operate with a pH ceiling above 8.5.

Given that there are no actual health risks associated with pool and spa water with a pH as high as 8.3 or even 8.5, I see no reason to mandate a maximum pH of 7.8. Pool equipment and surfaces might do better with a pH under 7.8, but optimizing the life of assets should be left to the aquatic facility. For example, if a facility wants to operate a spa with powerful hydrotherapy jets that make the pH practically impossible to maintain below 7.8, at the expense of managing calcium carbonate trying to come out of solution, then that should be the facility's prerogative.

FC/CYA Ratio

6.6.3.1 specifies a maximum ratio of cyanuric acid to free chlorine of 45:1. Anything greater than that requires immediate correction or shutting down the venue. For a venue that uses cyanuric acid, having less than 2 PPM of free chlorine also requires immediate correction per 6.6.3.1. The maximum cyanuric acid allowed is 90 PPM per 5.7.3.1.3.2, which effectively means that the only time the 45:1 ratio would come into effect on its own is when the cyanuric acid is above the 90 PPM limit. In other words, having greater than 90 PPM is not an imminent health risk except when free chlorine is simultaneously near its specified minimum. This is agreeable, but there should be encouragement for aquatic facilities to maintain a lower ratio. For example, if a health inspector finds a venue with a ratio of 40:1, there should be a specified healthy maximum ratio that the health inspector can cite in a report, which the aquatic facility can then analyze and use for implementing improvements to its maintenance program.

Many possible maximum cyanuric acid to free chlorine ratios exist. One report by a team of scientists [6] recommends 20:1 as a reasonable maximum; a report by Pulsar Pools [7] advocates for 14:1 to match monochloramine's disinfection rate against giardia; Lowry's 7.5% rule [8] for controlling algae translates to 13.3:1; and approximately 10:1 has worked well in my own experience for both commercial and residential pools. Different pools have different bather loads and different supplementary chemistry programs (e.g., algaecides, enzymes, and/or potassium monopersulfate as a non-chlorine oxidizer). As a result, any of these maximum ratios could be appropriate. Moderate use venues not employing any supplementary program should be abiding by a maximum ratio of 12:1.

CYA in Spas and Indoor Pools

One major change that the currently available draft of the MAHC would bring is the eventual prohibition of cyanuric acid in spas and indoor pools (see 5.7.3.1.2.4 and 5.7.3.1.3.1.1). There are reasons both for and against prohibiting cyanuric acid in spas and indoor pools. Starting with the reasons in favor, cyanuric acid significantly reduces chlorine's strength. A facility's failure to consider this could result in unsanitary water. Furthermore, responding to contamination events would require more chlorine and/or contact time, and operators would need to understand and account for this. The MAHC defines procedures for operators to follow (6.5.3.1-3), but even then, the additional step of reducing cyanuric acid down to 15 PPM for an unformed fecal incident adds complexity that some facilities might willingly ignore. Allowing spas and indoor pools to use cyanuric acid introduces these risks to such venues, whereas under the current MAHC draft, these mismanagement risks are contained to outdoor pools.

Now for the reasons against. First is simply better chemistry ranges. Public spas have successfully used cyanuric acid or stabilized chlorine products in Oregon for a long time. In fact, OAR 333-062-0165 does not differentiate between indoor and outdoor spas, so any venue without a continuous monitoring system is incentivized to use cyanuric acid so that chemistry checks can be performed every two hours instead of every hour. Therefore, unless the OHA has data showing a disproportionate rate of outbreaks in Oregon public spas versus other states, prohibiting cyanuric acid in spas seems unwarranted. And the situation for cyanuric acid use is much better with the MAHC: the maximums for cyanuric acid (5.7.3.1.3.2) and free chlorine (5.7.3.1.1.5) are 90 PPM and 10 PPM respectively, which work together significantly better than the current maximums of 150 PPM and 5 PPM set by the tables referenced in OAR 333-060-0200 and OAR 333-062-0165. Aquatic venues will have a much easier time maintaining a healthy cyanuric acid to free chlorine ratio even when their management is ignorant about cyanuric acid's effect on chlorine disinfection. With that in mind, the ratio should be lower for spas than pools due to the closer proximity of bathers.

Second is the composition of total alkalinity. Total alkalinity, as its name implies, is a total. Pools and spas primarily use carbonate alkalinity, but carbonate alkalinity allows pH to be driven upward through aeration. Orenda explains how this works on their blog and on their pH ceiling article [4]. In a venue where the water experiences significant aeration, such as a spa with hydrotherapy jets or an interactive water play feature, pH control can become nearly impossible due to this effect. Cyanurate alkalinity, which comes from cyanuric acid, does not contribute to raising the pH when water is aerated. Using cyanuric acid to replace some of the carbonate alkalinity with cyanurate alkalinity can further help with pH control. This is something that spas and some indoor pools would want to consider utilizing, especially if my recommendation for raising the maximum allowable pH is not followed.

And third is reducing nitrogen trichloride formation. Nitrogen trichloride is the nastiest, most irritating combined chlorine compound and is usually the primary driver behind poor natatorium air quality [9]. Many swimmers have developed asthma due to the lung damage caused poor natatorium air, so managing combined chlorine and nitrogen trichloride in particular is an important public health objective. A paper by Wojtowicz [10] features as its first figure a graph of breakpoint chlorination that clearly shows that higher levels of chlorine result in increased formation of nitrogen trichloride when ammonia is present. That graph is based on prior experiments, including with wastewater that has similar chemistry to pool water [11]. Falk [2] analyzed nitrogen trichloride formation further and theorized that using a small amount of cyanuric acid (e.g., 20 PPM) in an indoor pool could significantly reduce the amount of nitrogen trichloride that composes a pool's combined chlorine residual. This would happen because the free chlorine bound to cyanuric acid would not be able participate in the reaction that creates nitrogen trichloride, making its formation much less frequent. While this approach may increase overall combined chlorine levels, scheduled downtime (e.g., closing for the night) can allow the breakpoint reactions to finish, resulting in healthier water and healthier air. Given that nitrogen trichloride can form and off-gas before it has time to go through a supplementary system such as medium pressure ultraviolet, ozone, or advanced oxidation process [12], preventing nitrogen trichloride formation using cyanuric acid might even be the most effective option available. It also bears mentioning that spas typically have problems with high combined chlorine because of their smaller size and because their high temperatures cause bathers to sweat. Outdoor spas handle it better, especially with wind to blow away airborne chloramines and direct sunlight on the water to break down the combined chlorine, but direct sunlight can be scarce in some parts of Oregon for half of the year or more. Cyanuric acid would be one way to control nitrogen trichloride formation in spas, similar to indoor pools.

Unfortunately, there are no studies that confirm or disprove Falk's theory about cyanuric acid reducing nitrogen trichloride formation. The primary nitrogenous containment introduced by bathers is not even ammonia, but urea. We do not have a verified model for the breakdown of urea by chlorine, and while Wojtowicz proposed a model, even under that model it's unclear if cyanuric acid could reduce nitrogen trichloride formation from urea. This is an area where more research is required.

In summary, 5.7.3.1.2.4 and 5.7.3.1.3.1.1 prohibiting cyanuric acid in spas has its pros and cons. Prohibiting cyanuric acid in these venue types can result in more sanitary conditions, particularly when facility staff do not have an appreciation for cyanuric acid's effect on chlorine disinfection. However, there are situations (some requiring further research) where cyanuric acid can help with other water or even air quality objectives. This subject raises questions about the role of health code and whether it should be written to help the lowest-performing facilities achieve adequate health conditions or not obstructing the highest-performing facilities in achieving the best health conditions.

FC in Spas Without CYA

5.7.3.1.1.2.3 sets the minimum concentration of free chlorine for spas to 3 PPM. If spas are allowed to use cyanuric acid following the discussion above, 3 PPM is a good minimum for those spas that use cyanuric acid. However, it should be clear from the prior topics that 3 PPM is much more than necessary to provide adequate background disinfection, and that more free chlorine is not necessarily better (because it increases nitrogen trichloride formation). For spas that do not use cyanuric acid, the current minimum of 1.5 PPM set by OAR 333-062-0165 is reasonable. The risk of going lower is not that the chlorine is not powerful enough, but that the chlorine in the spa could be depleted entirely because of the small water-to-bather ratio and increased chlorine demand from high temperatures. Spas that have continuous monitoring systems that automatically dispense chlorine based on their readings could be handled differently from spas that lack such automation. For example, a spa without a continuous reading device (or if the continuous reading device does not communicate with the chlorine feeder) could be required to maintain a minimum of 2 PPM of free chlorine instead of 1.5 PPM.

References

[1] https://cdn2.hubspot.net/hubfs/3831534/Scientific%20documents/Relative%20Effects%20of%20pH%20and%20CYA%20on%20Disinfection,%20Dr.%20Stanley%20Pickens.pdf
[2] https://f.hubspotusercontent10.net/hubfs/5079918/Scientific%20Documents/Trichloramine-CYA-Relationships,%20Richard%20Falk.pdf
[3] https://www.aquamagazine.com/service/article/15120724/test-killers-common-water-testing-interferences-and-how-to-avoid-them

[4] https://ask.orendatech.com/knowledge/what-is-the-ph-ceiling
[5] https://poolchemistrytraininginstitute.com/wp-content/uploads/2019/06/PCTI-Tech-Bulletin-Why-pH-Rises-if-Not-from-Liquid-Chlorine-122018.pdf
[6] https://cdn2.hubspot.net/hubfs/3831534/Impact%20of%20CYA%20on%20Gastrointestinal%20Illness.%20CMAHC.pdf
[7] https://pulsarpools.com/wp-content/uploads/2021/02/The-Effect-of-Cyanuric-Acid-on-Disinfection.pdf
[8] https://poolchemistrytraininginstitute.com/wp-content/uploads/2019/06/PCTI-Tech-Bulletin-2-to-4-PPM-Free-Chlorine-May-Not-Work-122618.pdf
[9] https://blog.chloraminеconsulting.com/what-is-chloramine-poisoning
[10] https://www.poolhelp.com/wp-content/uploads/2024/09/JSPSI_V4N1_pp30-40.pdf
[11] https://pubs.acs.org/doi/10.1021/es60066a006 (Behind a paywall; I can send a copy as an attachment upon request)
[12] https://blog.chloraminеconsulting.com/comparing-best-sanitization-and-oxidation-systems-for-swimming-pools

I strongly recommended reading the works I referenced. Many of them have had a significant impact on the way I approach pool chemistry, and I have experimentally verified some of their claims as well.

About Me

I have been maintaining pools since 2018. I completed my CPO with 100% accuracy in May of 2024, and I currently maintain a number of commercial pools and spas and a residential pool. My quest to truly understand what my pools are doing has brought me to numerous scientific papers and technical articles on water chemistry and disinfection. While I am not a scientist myself, I hope I can spread the science to those who need to hear it, whether they maintain water or provide structure for those who do.

Paul Coulter

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February 4, 2025

Brittany Hall
Oregon Health Authority
Public Health Division
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Portland, OR 97232

RE: OAR 333-060 and 333-062 - Aquatic Facility Rule Update - Adoption of the 2023 Model Aquatic Health Code

On behalf of the Pool and Hot Tub Alliance (PHTA), a non-profit organization with more than 4,000 member companies, we write to you today to request the Oregon Health Authority (OHA) to consider the International Swimming Pool and Spa Code (ISPSC) in conjunction with the Model Aquatic Health Code (MAHC).

If you are unfamiliar, the ISPSC, developed in collaboration by PHTA and the International Code Council (ICC), is a comprehensive model code that regulates the minimum requirements for the design, construction, alteration, repair and maintenance of swimming pools, spas, hot tubs and aquatic facilities. It is the only comprehensive swimming pool code coordinated with the International Codes (I-Codes) and PHTA Standards.

Key points to consider:

1. Comprehensive coverage: The ISPSC covers both public and residential pools, spas and hot tubs, using prescriptive and performance-related provisions.
2. Wide adoption: The ISPSC has been adopted by 16 states and over 500 localities nationwide. Many of those local adoptions are driven by state law.
3. Industry support: The PHTA strongly supports the adoption of the ISPSC in all 50 states, which would lead to more consistent standards across jurisdictions.
4. Coordination with other codes: The ISPSC is coordinated with I-Codes and PHTA Standards, which often facilitates integration with existing building codes.
5. The ISPSC was created and is maintained following the strict ICC review process. Much of the underlying content was adapted from PHTA's 16 ANSI standards. The ICC and ANSI processes provide transparency and encourage inclusion of user

concerns. The ISPSC also follows a regular 3-year review cycle, which ensures that it follows and regulates all developments in the aquatic industry.

While OHA is currently considering adopting the CDC's 2023 Model Aquatic Health Code (MAHC), 4th Edition, evaluating the ISPSC as a complementary option could be beneficial. This consideration could help ensure that Oregon's aquatic facility regulations are comprehensive, up-to-date and aligned with widely accepted industry standards.

Further, PHTA is the leading industry organization that is ANSI accredited to develop and promote national consensus standards for residential and public swimming pools, hot tubs and spas. Our library of published standards include ANSI/PHTA/ICC-2 2023 American National Standard for Public Pool and Spa Operations and Maintenance, ANSI/APSP/ICC-11 2019 American National Standard for Water Quality in Public Pools and Spas and the many others that are developed to perfectly compliment the ISPSC.

The International Swimming Pool and Spa Code (ISPSC) represents a robust, comprehensive standard for aquatic facility safety that merits serious consideration by the Oregon Health Authority. By evaluating the ISPSC alongside the MAHC, Oregon can leverage a proven regulatory framework that has been successfully adopted throughout the nation. PHTA's commitment to developing national consensus standards and our collaborative work with the International Code Council demonstrate our dedication to creating the safest possible aquatic environments for all users.

Thank you for considering our comments. Please lean on PHTA as a resource, we are available to answer any questions OHA may have.

Warm regards,

Tyler D. Jones
Director of Government Relations
Pool and Hot Tub Alliance

TJones@phta.org

About Us

The Pool & Hot Tub Alliance was formed in 2019, combining the Association of Pool & Spa Professionals (APSP) and the National Swimming Pool Foundation (NSPF). With the mission to "Celebrate the Water," PHTA facilitates the expansion of swimming, water safety, and related research and outreach activities aimed at introducing more people to swimming, making swimming environments safer, and keeping pools open to serve communities.

APSP, now the PHTA, is the world's oldest and largest association representing swimming pool, hot tub, and spa manufacturers, distributors, manufacturers' agents, designers, builders, installers, suppliers, retailers, and service professionals. Dedicated to the growth and development of its members' businesses and to promoting the enjoyment and safety of pools and spas, PHTA offers a range of services, from professional development to advancing key legislation and regulation at the federal and local levels, to consumer outreach and public safety. PHTA is the only industry organization recognized by the American National Standards Institute to develop and promote national standards for pools, hot tubs, and spas. For more information, visit PHTA.org.

From: Robert Reardon
To: Public Health Rules
Subject: Pool code comments
Date: Tuesday, February 4, 2025 2:20:32 PM

Howdy
looking at the significant changes, I have to following comments:

3.0 Definition of non substantial alteration- need to define minor, seems clear repairs aren't something facilities can go through plan review for but what constitutes minor modifications ?

5.8.5.4.3 CPR Posters- is there an example of what we expect for these?

6.4.1.3.1 Daily Inspection- what is expected to prove this is being done?

4.1.3.2 Non Substantial Alterations- Will OHA provide guidance for local authorities to answer questions about these or should all inquiries continue to be forwarded to OHA?

4.1.3.3 Replacements- is there a list of components related to this or anything thats part of the pool system? i.e. weir covers, ladders etc?

In addition to this sheet I read through pages 132-137 and highlighted the following:

6.6.3.1 11.) Should this include providing a functional emergency phone? especially where lifeguards are not present?
15.) Does this include gaps in enclosure over 4 inches ?

Robert Reardon
R.E.H.S. Senior
Multnomah County Environmental Health
971-998-4182

"Chop your own firewood, it will warm you twice." Thoreau

From: SABRINA TAYLOR SCHMITT
To: Public Health Rules
Cc: VANESS Erica; Nagamine, Taku
Subject: Public Commit on OHA Public Pool and Spa (Aquatic Facility) Proposed Rules
Date: Tuesday, February 4, 2025 5:03:13 PM

To Whom It May Concern,

Tualatin Hills Park & Recreation District (THPRD) appreciates the opportunity to provide comments on the proposed pool rule changes. As operators of six indoor and two outdoor pool facilities, as well as multiple splash pads in Washington County, Oregon, we have significant concerns regarding the limited time provided for review of this extensive document.

Our Building Maintenance Supervisor, Chris Gaydos, did not receive the email until January 18, despite being a licensed pool email contact statewide. Additionally, we were not notified of the opportunity to participate in a review committee. During an Oregon Recreation and Park Association (ORPA) meeting in October, it was mentioned that select agencies had received invitations, yet despite multiple outreach attempts from our Aquatics Manager, Andrew Jackman, and myself to OHA throughout the fall, we received no response or further information.

Given the scope and potential impact of these changes, we formally request additional time to review the proposed code, which appears to be modeled after the Model Aquatic Health Code (MAHC). Although the MAHC is a wonderful benchmark we have concerns about the impacts of adopting and applying it to Oregon run facilities. The MAHC is under constant review and revision, leading to reason why only 12 states have adopted this code according to a journal article in PLOS this past August. There may be unforeseen impacts to access to aquatic facilities that may be challenged to meet current code requirements. We strongly urge further review and broader community outreach with small and large agencies, county, city and special park districts, as well as "limited use" pool, we also suggest not only with pool operators/owners but pool users such a swim teams, school districts, lesson programs who may be impacted by the change in code.

THPRD Comments and Concerns

Scope and Applicability of New Rules

There appears to be a conflict in how the rule changes are presented. While they are described as applying only to new construction, operational elements are also included. This raises the question of whether there will be two different sets of standards—one for existing facilities and one for new facilities—or if this was misrepresented in the notice.

The announcement states:

"Most existing licensed aquatic venues will be able to continue to operate as licensed after the rule adoption, with the updated provisions of the MAHC applying to new construction only at this time."

However, the language is vague, particularly the use of "most" without a clear definition of how existing facilities will be impacted. THPRD seeks further clarification on this matter.

Additionally, we request clearer guidance on the definition of "substantial alteration" and how it will be applied.

ADA Compliance & Accessibility (Sections 4.5-4.8)

While the proposed rules appear to align with current ADA standards, we have concerns that as ADA guidelines evolve, this code may become outdated. Rather than specifying fixed requirements, we suggest referencing compliance with the most current ADA standards to ensure ongoing accessibility compliance.

Lighting & Facility Operations

- **Section 4.6.1.2 (Underwater Lighting):**
  - Does the current lighting standard accommodate "dive-in" movies? Currently run at many facilities across the state.
  - If underwater lighting meets the standard, would additional lighting still be required?
- **Section 4.6.1.1.1 (Outdoor Aquatic Venues – Page 34):**
  - The requirement for lighting from 30 minutes before sunset to 30 minutes after sunrise raises concerns for dawn-to-dusk operations, such as splash pads.
  - How does this impact splash pads specifically? This could negatively impact the feasibility of new splash pads due to increased lighting costs.
- **Section 4.6.1.4.3 (Aquatic Venue Illumination – Page 34):**

- Requiring lighting for all areas (water, depth markers, signs, entrances, restrooms, safety equipment, designated deck areas, and walkways) could be overly burdensome.
- Example: At **Cedar Hills Park**, the additional lighting required would have significantly impacted splash pad feasibility.

Interactive Water Play Venues (Splash Pads - Page 82)

- **Section 4.12.9.17.3 (Capacity - Collection Tank Size):**
  - The minimum 3,000-gallon volume requirement may limit the ability to install smaller splash pads in urban areas, impacting equity and accessibility efforts.
  - Example: Reflection Plaza Splash Pad would not have met this requirement.
- **Section 4.12.9.20 (Enclosures):**
  - The language is unclear regarding stand-alone splash pads.
  - THPRD requests clarification on whether enclosures will be required for all splash pads.

Deck & Safety Considerations

- Section 4.8.1.5.2.1 (Unobstructed Deck):
  - We seek clarification on deck measurement requirements and whether the four-foot perimeter deck must extend behind lifeguard stands.

Diving Boards & Emergency Communication Equipment

- Section 4.8.2 (Diving Boards & Platforms):
  - We request that the proposed requirements align with competitive diving standards and do not conflict with existing USA Diving and NFHS guidelines.
- Section 4.8.5.2.1 (Emergency Communication Equipment):
  - Backup communication plans requiring two-way radios do not resolve emergency access to 911.
  - Due to deteriorating phone infrastructure in Washington County, many THPRD facilities must rely on cell phones.
  - THPRD suggests adding a requirement for facilities to verify mobile phones are charged and have reception before opening.

Restroom & Shower Facilities

Operational & Safety Considerations

- Section 5.8.5.3.8 (Polarized Sunglasses for Lifeguards):
    - THPRD has concerns regarding equity, ADA compliance, and enforcement of a rule requiring lifeguards to “shall” wear polarized sunglasses.
    - Would it be more appropriate to recommend their use instead?
    - Alternatives such as prescription glasses should be considered to avoid safety issues for staff, these may not be available to staff in polarized option vs tinting.

Staff Training & Certification

- **Section 6.3.3.1.4 (Alternation of Tasks):**
    - The wording is overly restrictive and should be broadened to include office duties or other assigned tasks within an employee’s job description.
- **Sections 6.4.1.7 - 6.4.1.7.1 (Lifeguard Certification Records):**
    - THPRD has concerns about maintaining copies of lifeguard certifications at individual sites.
    - Many lifeguard tracking and training programs use cloud-based software, which provides higher compliance and security standards than paper copies.
    - THPRD also has concerns regarding employee privacy and compliance with ORS 192.311 (Public Records Requests).
    - Clarification Requested:
        - Can a formal public records request be required?
        - Do “copies” refer to physical hard copies or would digital records suffice?

Technical Specifications & Bather Load Calculations

- **Max Bather Load (Section 4.1.2.3.5):**
    - The formula appears low and restrictive.
    - It seems overly complicated.
    - Was this tested against existing facilities to determine feasibility?
    - We seek clarification on this application and rule

Thank you for taking the time to review and respond to our commits,

Sincerely,

Sabrina Taylor Schmitt
Recreation & Aquatic Director
Tualatin Hills Park & Recreation District

Stan Beesley
1941 Osprey Drive
Redmond, OR 97756

January 6, 2025

Erica Van Ess, Rules Coordinator
Oregon Health Authority, Public Health Division
800 NE Oregon St. Suite 640
Portland, OR 97232

Regarding: **NOTICE OF PROPOSED RULEMAKING -** INCLUDING STATEMENT OF NEED & FISCAL IMPACT - CHAPTER 333 - **OREGON HEALTH AUTHORITY, Public Health Division**

Dear Ms. Van Ess

I am writing in response to the proposed rulemaking relative to OAR, Chapter 333. I applaud the effort to address some of the issues with the existing rules, particularly those related to pool and spa monitoring. The existing rules related to spa monitoring specifically those requiring two-hour monitoring are onerous and very expensive for home-owner associations and other similar organizations. A change in those requirements would be very welcome.

However, I find the draft rules as posted on the SOS Archives website to be very confusing and difficult to understand. One of the drafters advised: "To understand what OHA has been working on you have to read the MACH 4.0 in its entirety and then apply the modifications listed (in the document in the Archives) to fully understand what the new regulations will be. Not included is subsets of specific instructions for scenarios not fully covered in the MACH with the modifications."

The average citizen is not going to go to the CDC website to read the MACH 4.0 and try to piece together the proposed rules with the MACH 4.0. Certainly, bringing Oregon rules in line with national models is optimum, but don't make Oregon residents have to read two documents in order to know what the rules and requirements are. With respect to the draft, it would be far more readable if it were in two columns – one reflecting the old language and the other reflecting the actual new language. I recognize that the changes are numerous, but that is all the more reason to consider simplicity. Going from a rule of 30 – 40 pages to one of more than 150 pages does not seem to be bringing simplicity to the process. It is still not totally clear what the new monitoring requirements are – one of the tables attached seems to indicate that monitoring should be done very four hours. I understand that is what is intended.

The old rules at 333.060-0200 very clearly were headed as water quality and clearly stated the monitoring rules. I have not found such a section in the new rules. The old rules were indexed – the new rules do not seem to be. Should that not have been done before submitting the rules for comment and consideration? It is difficult to make intelligent comments on the draft as it is currently formatted.

I understand that there has been much pressure to get these approved by mid-February, but that effort should not be at the expense of clarity in what the rules provide and require,

Respectfully submitted

Stan Beesley
Stan_beesley@yahoo.com
1 (971) 409-8538

2/21/2025
Sent via electronic mail:
publichealth.rules@odhsoha.oregon.gov

To whom it may concern

Comment on underwater lighting and the new 2023 Model Aquatic Health Code (MAHC)
Since underwater lights were first introduced to pools, electrocution has been an issue. Some claim it is the second-highest cause of death in pools and spas, after drowning.
The code requires the bottom of the pool be visible however underwater lighting is not required to achieve this.
The illumination of the pool bottom is a performance requirement that may be achieved by other means.
Therefore I see no need to put any prescriptive lumen per square foot requirement for underwater lighting fixtures, since the bottom of the pool has a performance requirement to be visible as specified in 5.7.6.1.

In addition I propose mandating fiber-optic lighting on new pools if underwater lighting is used. Fiber-optic systems have been available for decades, and fiber-optic technology has advanced over the years, you probably now or soon will have internet to your home or office via fiber-optic cables. Underwater lighting that employs use fiber-optic cable has had zero pool electrocutions since its inception over 30 years ago. There is no possible way for a fiber-optic pool light to energize a pool even in a completely failed state.
The majority of Consumer Product Safety Commission reports on pool fatalities since the 1990's involve underwater lighting. While pool lighting is required to be UL listed, no online retailers enforce this and there are many fake UL listed products sold online. If underwater lighting is all fiber-optic there is a 0% chance for maintenance personnel to use a dangerous non UL listed replacement lamp or part.
Mandating fiber-optic lighting, if underwater lighting is used would increase the cost of a new commercial pool but only by a fraction of a percent, and it would also prod pool lighting manufacturers and suppliers in a safer direction.

My changes are as proposed below, deleted text is in strike thru new or changed text is underlined.

4.6.1.5 Underwater Lighting
4.6.1.5.1 (A) Minimum Requirements Underwater lighting, where provided, shall be**:** ~~not less than eight initial rated lumens per square foot of POOL water surface area.~~

4.6.1.5.1.1 ~~Location Such underwater lights, in conjunction with overhead or equivalent DECK lighting, shall be~~ located to provide illumination so that all portions of the the POOL , including the bottom and drain(s), are readily visible as required in 5.7.6.1.

4.6.1.5.1.2 Supplied by a listed fiber-optic cable or system, with no metallic parts in the underwater fixture shell.

(End of proposed text)

Some examples of underwater lighting fatalities:
2014, a 7-year-old Calder Sloan, was electrocuted in a pool when stray current entered from a lighting fixture. The tragedy made international headlines.
The residential pool in question was supplied by a low voltage 12 volt lighting system, commercial pools almost always to use 120 volt lighting systems.
In 1996 in New Jersey a life guard at an apartment complex was electrocuted by voltage in the pool water due to a faulty underwater light.
Texas in 1991 a father drowned in a motel swimming pool after saving his three children who were screaming that they were being shocked. A second man, a cook at the motel, tried to save the father but he too was paralyzed by electricity and drowned.
The investigation determined that a wiring mistake in one of the pool's underwater lights was the cause. The children were far enough from the light that they received minor shocks. The two men swam close enough to the light to receive greater shocks and couldn't swim away.

Fiber-optic pool lights that are UL listed for pools are persently manufactured and available.
Thanks for your consideration

Stephen Schmiechen
Eugene Oregon

2/21/2025
Sent via electronic mail:
publichealth.rules@odhsoha.oregon.gov

To whom it may concern

Comment on pool electrical safety inspections and the new 2023 Model Aquatic Health Code (MAHC)

Simply having a AHJ visually inspect a bonding grid installed at a pool isn't enough.
Testing the performance of the equipotential bonding grid should be required to ensure the grid has been designed and implemented in with a low grid resistance value, which will indicate whether or not the bonding grid been installed correctly (and whether or not it meets the National Electric Code standards).
Many states now require performance testing of public pool equipotential bonding (AKA grounding) systems every 5 years.
For example the state of New Jersey has the following law:
NJ code section 5:23-2.20(e)
"The bonding and grounding certificate for swimming pools, spas and hot tubs, shall be issued by a recognized electrical testing agency or a New Jersey State licensed electrical contractor. This certificate shall verify the continuity and integrity of the bonding and grounding system. It shall be valid for five years from the date of issuance. The bonding and grounding certificate may cover more than one swimming pool, spa, and/or hot tub unit."

The National electrical code, recommends the AHJ require safety inspections in section 680.4. However the NEC is not a testing code and has no guidelines for inspecting or testing the performance of a pool bonding system, instead we should look to IEEE and IEC standards.

The MAHC should provide clear guidelines and simple requirements for testing and verifying pool equipotential bonding systems meet the intent of the NEC section 680.26.

I propose the following revisions to 5.6.3.5.7 (underlined):

5.6.3.5.7 Continuity Continuity of the bonding system associated with RECIRCULATION SYSTEM or DISINFECTION equipment or with underwater lighting systems shall be:
5.6.3.5.7.1 Inspected by the AHJ following installation and any major construction around the AQUATIC FACILITY.
5.6.3.5.7.2 Before final inspection and every 5 years thereafter the electrical bonding shall be tested and certified as follows.
This certificate shall verify the continuity and integrity of the bonding and grounding system according to the test outlined below. It shall be valid for five years from the date of issuance.

5.6.3.5.7.3 Bonding Test
A bonding test shall be preformed from the pool equipment electrical panel to all of the metallic components of the pool including but not limited to the circulation pumps frame, filter, heater, motor starters, junction boxes, switches and piping with the pool filled.

The resulting resistance shall be in accordance with IEEE standard of a maximum value of 1 Ohm between metallic surfaces which shall be the maximum value allowed.
The test results shall be recorded and kept for 10 years.

5.6.3.5.7.4 The bonding certificate for swimming pools, spas and hot tubs, shall be issued by a recognized electrical testing agency, Oregon State licensed electrical contractor or Oregon State licensed Engineer.

Requiring a 3rd party test would impose a added cost on pool operators but provide greatly enhanced safety to the public, as many AHJ are not equipped to perform such tests.
Thank you
Stephen Schmiechen
Eugene Oregon

From: Susan Emmons
To: Public Health Rules
Subject: Public Comment on the Proposed Regulations of Pools and Spas
Date: Wednesday, January 22, 2025 9:53:11 AM

The Sports Amenities Committee of Eagle Crest Estate Homeowners Association of Eagle Crest, Redmond, Oregon wishes to submit our comments on the proposed regulations that have been presented for public comment for regulations regarding chemical checks on pools and spas in the state of Oregon.

Our homeowner's association comprises 182 homes. Our homeowner's association owns a seasonal, private, limited use pool and spa. We appreciate the work that the committee has done in proposing more reasonable and affordable regulations while still safeguarding standards to protect public pool and spa users but there has not been any differentiation between regulations for public pools and spas and limited use pools and spas. Our pool and spa open Memorial Day and close on Labor Day. It is private and is used only by our 182 homeowners and their guests. Not all of our homeowners are pool and spa users. We do not charge for using the pool and spa so there is not a revenue stream generated as there is in public pools and spas that we could use to offset the costs of operating the pool and spa. We have an excellent local company that maintains our pool and spa and we budget for that expense every year. In the last 12 years that I have served on the Sports Amenities Committee, we have never had a report of a waterborne illness from either the pool or the spa.

We as a committee representing our homeowner's association would like to see differentiation between public entities and private limited use entities. We make every effort to take care of our amenities for the enjoyment of our homeowners and their guests. We understand that over one-third of all the pools and spas in the state of Oregon are private limited use pools and spas. We believe that the risk of waterborne illness in pools and spas such as ours is much less than a public pool and spa that serves hundreds if not thousands over the course of a week or month and they have employees that can service their pools and spas as well as they charge an entrance or usage fee to use these public pools and spas.

Our pool and spa contribute to the mental and physical well-being of our residents. We closed our spa last year because our small HOA could not afford the labor costs for the additional 2-hour checks required by the state and county. We already have automated chemical dispensers for both the pool and spa. We believe we speak for those entities when we ask for reasonable, AFFORDABLE, practical regulations for private limited use pools and spas.

Best Regards,

Susan Emmons
Co-Chair, Sports Amenities Committee
Eagle Crest Estate Homesite Owners Association
Email: susanemmons2001@gmail.com
Landline 541-526-5099 Cell 562-254-3617
2267 Osprey Drive
Redmond, OR 97756

From: Tate Metcalf
To: Public Health Rules
Subject: comments on proposed changes
Date: Tuesday, February 25, 2025 12:52:31 PM

Thank you for taking the time to review everyone's input

As a private health club, my biggest concern is around the language of Lifeguards in section 6.3.2.1 etc
I have been in contact with Erica Van Ess and it appears some wording may change.
But as is currently written it would not be feasible for us to have a Lifeguard on during all of the times mentioned.

Living in a small town it is very challenging to find staff. To find Lifeguards that can cover the 45 min Hydrofit class or 30 swim lessons would not work for us. Especially because many Lifeguards are younger and are in school when we would need them. Also, if they are younger than by law I have to schedule them for at least two hours. So that 30 minute swim lesson would mean I would have to hire the Lifeguard for additional time (and payroll). Also, I am sure that you are aware that Juniper Aquatic had such a hard time filling their Lifeguard needs that they had to close their pool for certain hours since they did not have staff. And Bend is way bigger than Sisters. ;-)

Also, it appears that the wording Athletic Clubs fall under Aquatic Venue. It also appears that we get to stay with the category of Limited Use. This is appreciated.

Thanks for this opportunity to voice our reality

Thanks
Tate Metcalf
Sisters Athletic Club
Sisters OR

January 22, 2025

OHA, Public Health Division
Brittany Hall, Administrative Rules Coordinator
800 NE Oregon St. Suite 930
Portland, OR 97232

The Oregon Health Authority has proposed new draft regulations for swimming pools. At Loft Property Management we manage one 31-unit apartment complex with an associated swimming pool.

The OHA says, "updated provisions of the new rules apply to new construction only at this time" (Erica Van Ess email, 1/18/25). This is false. The Draft Regulations 4.0 clearly state that older pools are not affected by Chapter 4 regulations. However, Draft Regulations 5.0 and 6.0 clearly state that ALL pools are affected by regulations in Chapters 5 and 6 (in total, 51 new pages of regulations). In addition, draft regulation 333-060-1025 says that replacement of any affected component part (i.e. regular repairs) removes the exemption from Chapter 4.

Historically, Oregon Law has created simpler regulations for swimming pools associated with private apartment complexes, as compared with publicly accessible pools. This is reasonable, given the lighter use and the limits on access the private apartment complexes provide. The law currently defines a "Limited-Use Public Swimming Pool" as one located at and operated in connection with a residential facility having five or more living units. There are many requirements placed on General-Use Public Swimming Pools which do not apply to Limited-Use Public Swimming Pools. Unfortunately, the draft regulations make practically no distinction between these two types of pools.

The draft regulations create substantial costs for existing pools.

1. A huge list of plans, documentation and manuals are required.

5.4.2.1.1 Comprehensive Preventive Maintenance Plan

5.4.2.2.2 Comprehensive Mechanical Equipment Inventory

5.4.2.2.4 Equipment Manuals for all mechanical equipment. If no manual is available, the operator must write standard operating procedures for that piece of equipment.

6.3.3 Safety Plan

6.3.3 1) Staffing Plan

6.3.3 4) Pre-service Training Plan

6.3.3 5) In-service Training Plan

6.3.3.1 Code Compliance Staff Plan

6.3.4.5.2 Emergency Action Plan

6.3.4.5.6.1 Accidental Chemical Release Plan

6.3.4.5.7 Facility Evacuation Plan

6.3.4.5.8 Communications Plan

6.3.4.5.9 Inclement Weather Plan

6.3.4.5.9.1 Contingency Plan

6.4.1.1.1 Operations Manual

6.4.1.5 Chemical Inventory Log

6.4.1.8 Bodily Fluids Remediation Log

6.4.2.1.1 Plan to address fluctuations in Bather occupancy

6.5 Fecal/vomit/blood Incident Contamination Plans

2. Substantial increases in operational costs.

4.7.1.10 Activity Pools require turnover 6 hours or less. Under current law 33-060-0120 2(b) small limited-use public pools require turnover every 8 hours. The new regulations ignore the much lighter use typical of a limited-use public pool.

5.5.6.1.2 Surface cracks under 1/8" must be documented

5.7.3.7.5 Only manufacturer approved OEM replacement parts allowed

5.7.4.2.1 Midday water sample collection required. 5.7.5.1 says tests are also required prior to every morning opening

5.7.4.2.2 Water tests must be made of inline port samples, and compared with bulk samples

5.7.5.2 Water tests (both inline and bulk) every four hours, or even every hour for chlorine systems using erosion feeders

6.3.1.2.4 6) Onsite inspection every 4 hours

6.4.1.6 15) Daily attendance tracking

3. Despite claiming to have no impact on existing pool structures, the draft regulations create several new requirements.

5.4.1.1.1 3) An approved safety cover shall be installed on closed pools with an enclosure

5.6.7.1.2 Potable water shall be available at all times to Patrons (presumably either via drinking fountain or bottled water)

5.7.1.6 Piping must be marked according to rules

5.7.3.5.1 Automatic chemical feed systems are mandated for all pools upon adoption of the code.

5.7.3.7.1 Automated disinfectant controller is mandated. 5.7.3.7.1.1 says that this is limited to newly constructed venues or substantially altered disinfectant systems, but the requirement for an automatic chemical feed system in 5.7.3.5.1 will require an automated disinfectant controller.

5.7.4.5 Alternative water sources must be approved by AHJ (so, AHJ must approve well sourced water)

4. The new regulations force staffing changes, with additional cost.

6.3.4.2 Mandates creation of a Safety Team

6.3.1.2.4. For a limited-use facility, the draft requires an Onsite Responsible Supervisor. It refers to a 'contracted' off-site Qualified Operator. The Qualified Operator must have a current certificate (6.1.1.2) from an operator training course approved by the AHJ. Under current law, an Owner may delegate to a Responsible Individual. No certification required.

6.5.1.2.1 Suggests one trained person must be onsite while the facility is open

The draft regulations also create substantial costs for new pools in an apartment setting.

4.10.5.14 Minimum one rinse shower

4.10.2.12.1 Diaper changing station, soap dispensers

4.10.5.12.3 One unisex restroom must be provided

4.10.5.13.1 Minimum one cleansing shower

Currently, apartments are exempt from these regulations because the tenants have access to their own homes nearby.

Unfortunately, the draft regulations also contain a number of silly mistakes.

4.10.5.13.5 Provides an exemption from 4.10.4.2, a section which does not exist in the draft regulations.

4.11.2.12.2.2 Refers to 4.11.1.1.2, as section which does not exist in the draft regulations.

5.7.3.4.1 says that the pH shall be maintained at 7.0-7.8. However, 6.6.3 4) says that pH at 7.0 is an Imminent Health Hazard and the pool must be immediately closed. A pH of 7.0 is not an Imminent Health Hazard.

4.8.1.2.3.1 says deck joints must be at least 3/16". 4.8.1.1.2.2 says that any joints larger than 3/16" must be filled. Making sure every joint is exactly 3/16", with no tolerance given, is very unrealistic.

4.8.6.2.4.1 says minimum fence height on grades is measured from the top of the grade to the top of the enclosure. That implies that on a 10' grade over 100', the fence would be as much as 16' high. Shouldn't the enclosure be allowed to step down over longer grades? Current code says fences must be four feet in height (the current minimum) relative to any ground within one foot.

5.5.6.1.2 Small cracks less than 1/8" must be monitored. Are larger cracks not required to be monitored?

Additionally, the draft regulations are inconsistent in labeling the entity who owns/manages the facility. 6.0 uses 'Owner'. 6.3.4.3.1 says 'Operator'. 5.8.5.4.4 uses 'Owner/Operator'. 4.1.1.3 uses 'Person'. In addition, sometimes 'Operator' is used where the draft regulations probably refer to the Qualified Operator, not the owner/manager, e.g. 6.3.4.5.6.2.

As an apartment operator, our pool provides our residents with a valuable benefit in the hot desert of Malheur County. The City of Ontario does not provide a pool. Ours is the only choice. We work hard to provide a safe place for our residents. We work hard to adhere to Oregon Law.

I estimate the draft regulations will cost us at least $20,000 (creating plans $10,000, safety cover $5,000, injecting chemicals $5,000), they will add $2,000 in annual plan management costs, they will quadruple our labor costs (another $10,000) and they will require that we certify a staff member ($1,000). We spent nearly $1,500 just analyzing the draft regulations. Incredibly, the NPRM makes no mention of these costs. According to the OHA there are 6,000 similar pools in Oregon. These regulations are very expensive.

The draft regulations need a major revision that would consider the unique attributes of the Limited-Use Public Pool and would create reasonable exemptions for the design and operation compared to busy General-Use Pools. Forcing us to follow the same regulations as a packed city pool is very unreasonable and will inevitably lead many apartment operators to simply close their pools.

William L. Johnson

Loft Property Management

p.s. by sending out your email on 1/18/25 to a bulk set of email addresses, you exposed my email to 410 other recipients (and now I have their email addresses). Please work harder to keep my email address private. Bcc: is one simple solution.