



**Proposed Amendments to 105 CMR 435.000:
Minimum Standards for Swimming Pools
*(State Sanitary Code Chapter V)***

Steve Hughes
Director, Community Sanitation Program
Bureau of Environmental Health

Public Health Council
June 14, 2017



- **Regulation 105 CMR 435.000: Minimum Standards for Swimming Pools**
 - Background
 - Proposed Revision Highlights - Definitions, Technical Amendments and Additions
 - Next Steps
 - Questions



Background

- Regulation, 105 CMR 435.000, *Minimum Standards for Swimming Pools (State Sanitary Code Chapter V)*, sets forth standards for the maintenance and operation of pools, pursuant to M.G.L. c. 111, § 127A.
- This regulation ensures safe and standardized pool operations in the Commonwealth.
- The proposed amendments revise outdated standards and clarify existing requirements; provide for new disinfection technologies, such as salt water chlorination; and add sanitation and safety guidelines for aquatic play features, spray decks, splash pads, and interactive water fountains.



Proposed amendments informed by:

- Executive Order 562 – Regulatory Review required for all state agencies
- Collaboration with stakeholders to solicit their input regarding needed revisions (e.g. – Local Boards of Health, Alliance of YMCAs, MA Camping Assoc., Architectural & Engineering Firms and others)
- Inter-Agency Input (e.g. – DCR, DEP, DPS, MMA & MRPA)
- Federal Guidance Documents & Requirements
 - Center for Disease Control and Prevention – Model Aquatic Pool Code and Guidelines for responding to fecal, vomit or blood incidents
 - American National Standards Institute – first aid kit requirement - Standard Z308.1-2015
 - American Society for Testing and Materials – Manufacture, Construction, Operation and Maintenance of Aquatic Play Equipment
 - Consumer Product Safety Commission – Virginia Graeme Baker Pool and Spa Safety Act



Definitions

- ✓ Adds NEW definitions for the following terms in order to modernize language in the regulation:

- | | |
|--|---|
| <input type="checkbox"/> Aquatic play features | <input type="checkbox"/> Record keeping log book |
| <input type="checkbox"/> ANSI, APSP, ASTM | <input type="checkbox"/> Safety Data Sheets (SDS) |
| <input type="checkbox"/> Correction level | <input type="checkbox"/> Splash pad |
| <input type="checkbox"/> Equalizer line | <input type="checkbox"/> Spray deck |
| <input type="checkbox"/> Operational level | <input type="checkbox"/> Ultraviolet light system |
| <input type="checkbox"/> Parametric monitoring | <input type="checkbox"/> Wing wall |
| | <input type="checkbox"/> Zero entry |



Proposed Revision Highlights

Bathhouse, Sanitary Facilities, Lighting, and Ventilation

✓ **Current requirement:**

- Establishes requirements for dressing and sanitary facilities, including water closets, lavatories, and showers; and
- Establishes requirements for pool lighting, including underwater lighting .

✓ **Proposed Revision:**

- Reorganizes the section to streamline, improve readability and align with the State Plumbing Code, 248 CMR;
- Modernizes language related to public access of facilities;
- Requires all indoor pools meet or exceed the minimum outdoor air ventilation rate established by the State Building Code, 780 CMR;
- Requires all lighting be shatterproof and all underwater lighting be recessed; and
- Requires all equipment, supplies, and chemicals be stored securely.

✓ **Rationale:**

- Updates to the regulation reflect modernization in facilities and ensure public safety.



Proposed Revision Highlights

Enclosures and Pool Covers

✓ **Current requirement:**

- Requires outdoor pools built prior to 1975 and all indoor pools be enclosed by a barrier at least four feet high; and
- Requires outdoor pools built after 1975 be enclosed by fences at least six feet high.

✓ **Proposed Revision:**

- Requires all outdoor pools be enclosed by a fence consistent with the requirements of state law (MGL c140, s206) and the State Building Code, 780 CMR; and
- Requires pools to be drained and covered within seven days of closing.

✓ **Rationale:**

- Updates to fencing, draining, and covering requirements align with state law, and State Building Code Standards which are used for inspections and enforcement at the local level.



Proposed Revision Highlights

Water Circulation and Filtration Systems; Inlets and Outlets

✓ **Current requirement:**

- Requires pools recirculate water every eight hours;
- Establishes requirements for all pool inlets and outlets, drains, or grate openings.

✓ **Proposed Revision:**

- Adjusts water recirculation requirements for newly constructed pools to every six hours;
- Adds recirculation standards for splash pads and pools with more than two aquatic water features;
- Adds language to ensure all drain covers comply with the federal VGB Pool and Spa Safety Act; and
- Clarifies that all recirculation and purification equipment and drain or grate openings must meet or exceed industry standards.

✓ **Rationale:**

- These updates codify existing federal best practices, providing operators with predictable and accepted industry standards.



Proposed Revision Highlights

Pool Surfaces and Entry

✓ **Current requirement:**

- Requires pools to mark stairs with contrasting painted or tiled stripe (435.120);
- Requires water depth and the boundary line between shallow and deep areas be marked with a contrasting painted or tiled stripe (435.120);
- Requires continuous walkways around pools that are at least four feet wide(435.130);
 - The regulation additionally recommends these walkways be eight feet wide.
- Establishes pool ladder and step requirements.

✓ **Proposed Revision:**

- Requires pools to mark stair risers and any projections into the pool with a contrasting painted or tiled stripe (435.120);
- Requires at least eight feet wide walkways between new pools (435.130);
- Clarifies walkways must be continuous around swimming and wading pools, and must continue at least half way around special purpose pools (435.130); and
- Adds language addressing zero entry areas and wing walls, including contrasting markings and maximum slope requirements (435.140).

✓ **Rationale:**

- These changes improve safety at pools and align with industry standards for new construction.



Licensure and Variances

✓ **Current requirement:**

- Requires pools have a license to operate;
- Establishes licensure application requirements and term of licensure;
- Authorizes local boards of health to grant variance of any provision in 105 CMR 435.000;
- Requires all variances be submitted to DPH for approval.

✓ **Proposed Revision:**

- Requires splash pads to be licensed in addition to pools;
- Clarifies state-owned and operated pools are not subject to licensure or enforcement;
- Clarifies that no variance may be granted for any provision related to the Pool and Spa Safety Act;
- Requires local boards of health to file approved variances with DPH

✓ **Rationale:**

- Changes to licensure standards:
 - Reinforce new standards for splash pads in the regulation;
 - Codify existing guidance to state-owned and operated facilities
 - Ensure pool operators meet all federal requirements



Proposed Revision Highlights

Notifications

✓ **Current requirement:**

- The existing regulation does not require operators or local boards of health to report to DPH.

✓ **Proposed Revision:**

- Requires local boards of health provide DPH and DEP an annual list of all pools (435.215); and
- Requires each operator provide DPH and local boards of health injury reports within seven days of the event (435.216).

✓ **Rationale:**

- Provides DPH with critical information on pool operations, improving awareness and response if necessary.



Proposed Revision Highlights

First Aid and Emergency Communication

✓ **Current requirement:**

- Requires a first aid kit with specific contents; and
- Requires an immediate and toll-free convenient emergency communication system.

✓ **Proposed Revision:**

- Requires at least one first aid kit that meets the ANSI standard including latex glove alternatives such as nitrile; and
- Requires each operator to provide an emergency communication device that is reliable, easily identified and located in an accessible area no more than four feet from the ground.

✓ **Rationale:**

- These changes align with current industry standards for first aid equipment, provide an alternative for responders that may have latex allergies and ensures the reliability and accessibility of emergency communication devices at pools.



Chemical Standards and Water Testing

✓ **Current requirement:**

- Establishes pH, alkalinity, and residual levels for chlorine and bromine; and
- Establishes standards for water testing equipment.

✓ **Proposed Revision:**

- Adds correction and operational levels for disinfectant levels in water;
- Establishes remediation requirements for pools with water exceeding correction levels;
- Prohibits dry casting of pool chemicals; and
- Adds standards for salt water chlorination via chlorine generator.

✓ **Rationale:**

- Provides operators the flexibility to manage pool water chemistry while maintaining national standards.



Bacterial Water Quality and Water Clarity

✓ **Current Requirement:**

- The Board of Health may require bacteriological analysis.
- Pool water shall be sufficiently clear.

✓ **Proposed Revision:**

- Provides direction related to public health concerns;
- Updates established protocols based on American Public Health Association Standards
- Enhances criteria for confirming and maintaining pool water clarity.

✓ **Rationale:**

- These changes improve the health and safety at pools, and aligns with industry standards



Water Slide Flumes

✓ **Current requirement:**

- Establishes water slide flume construction and operation standards.

✓ **Proposed Revision:**

- Prohibits drop slides from public and semi-public pools;
- Requires attendants be stationed at water slide flume entrances and exits; and
- Requires flumes be installed and maintained according to current industry best practice standards.

✓ **Rationale:**

- These changes enhance the safety of water slide flumes and provides additional protection for patrons.



- ❑ **Splash Pads, Spray Decks, Aquatic Play Features and Interactive Water Fountains**
- ✓ **Current requirement:**
 - ❑ There are no provisions addressing splash pads , spray decks, aquatic play features and interactive water fountains in the existing regulation.
- ✓ **Proposed Revision:**
 - ❑ Adds a section establishing water sourcing and recirculation minimum standards for spray decks and splash pads. Recirculation and sourcing standards refer to existing pool standards within the regulation.
 - ❑ Adds a section establishing minimum requirements for aquatic play features and interactive water fountains, including that these features meet ASTM industry best practice standards.
- ✓ **Rationale:**
 - ❑ Provides health and safety provisions for these features and associated facilities.



Next Steps

- DPH will hold 2 public hearings to receive comments from the general public.
- After the public comment period, DPH will review comments and draft additional appropriate revisions.
- Approval of the proposed revisions, along with a review of public comments, will be requested at a subsequent meeting of the Public Health Council.
- Following final approval, this regulation will be amended.
- Training and guidance materials will be developed to assist with implementation.



Questions

