

FL Dept. of Health Advisory Board, Summary of Epsom salt float tank code citations; 7/26/2019

Epsom salt float tanks, which are deemed special purpose public pools under Chapter 514 Florida Statutes, are commonly non-compliant with the operation and design construction criteria cited in the following sections of the Florida Administrative Code (F.A.C.) and Florida Building Code section 454.1 (FBC).

SECTIONS OF 64E-9, F.A.C., TOPIC

64E-9.004(5) Recirculation system must operate any time pool is open (proviso # 1 and 2)

64E-9.008(3)(b&c) Safety equipment: Shepard's hook & life ring with rope

64E-9.008(10)(a) NSF/ANSI standard 50 certified recessed skimmer, O3 generators, and UV systems

64E-9.008(10)(e) pH feeders required, and must be certified to NSF 50

SECTIONS OF 454.1, FBC, TOPIC

454.1.2.1 Impervious, slip resistant (a) Water line tile requirement, color of floor /wall

454.1.2.2.2 Minimum width 15 feet

454.1.2.2.3.1 Minimum floor slope 1:60

454.1.2.2.4 Minimum water depth shall be 3 feet

454.1.2.3.1 Markers for depth and no-diving

454.1.2.3.5 Pool rules sign (proviso # 7)

454.1.2.5 Access shall consist of ladders, stairs, recessed treads or swimouts (proviso # 5)

454.1.3.1.2 Clear 4 feet wet deck width, deck slope (proviso # 6)

454.1.3.2 Overhead obstruction clearance of 4 feet from water surface (in pools with lids)

454.1.3.3.1 Safety equipment: Shepard's hook & life ring with rope

454.1.4.2.2 Lighting requirements for indoor pools

454.1.5.5 Equipment enclosure must have minimum 3 x 6-foot opening and easy access

454.1.5.7 Equipment area lighting must provide 30 foot-candles

454.1.6.1 Unisex restrooms must include a urinal, floor drain, and diaper change table

454.1.6.5.1 NSF/ANSI standard 50 certified: recessed skimmer, O3 generators, and UV systems

454.1.6.5.3.2.5 Six-inch water line tile required for skimmer pools

454.1.6.5.10 Pools require an outlet at the deepest point

454.1.6.5.10.5 Main drain must be connected to a collector tank (proviso #4)

454.1.6.5.11 Automatic makeup water control

454.1.6.5.14 Heater must be plumbed with a bypass and influent & effluent valves

454.1.6.5.16 & 454.1.6.5.16.3 Automatic feeders for pH control required (proviso # 3)

454.1.6.5.16.4.2 Ozone generating equipment shall meet NSF/ANSI Standard 50 (proviso # 8)

454.1.6.5.16.4.4 Air flow meter required for ozone system (proviso # 8)

454.1.6.5.16.6 3. UV validation requirements by USEPA method (proviso # 8)

Facts:

The following five pool codes' requirements are specifically addressed by the variance provisos:

- 1) Halogen residual of 1-6 mg/L indoors is required at 64E-9.004(1)(d)2.
- 2) NSF/ANSI Standard 50-certified disinfectant feeder & requirements at 64E-9.008(10)(e) & 454.1.6.5.16 & 454.1.6.5.16.2
- 3) NSF/ANSI Standard 50-certified recirculation filter & requirements at 64E-9.008(10)(a) & 64E-9.008(10)(d) & 454.1.6.5 & 454.1.6.5.4

- 4) NSF/ANSI Standard 50-certified ozone generator & requirements at 64E-9.008(10)(a) & 64E-9.008(10)(e)4. and 6. & 454.1.6.5.16.4.2
- 5) NSF/ANSI Standard 50-certified UV light systems & requirements at 64E-9.008(10)(a) & 64E-9.008(10)(e)5. & 454.1.6.5.16.6

There are twenty-five (25) unique public pool code violations listed in the table above for this special purpose swimming pool with three duplications between the two state codes.

Conclusions:

The twenty-five (25) unique requirements of Chapter 64E-9, F.A.C., and the FBC, Chapter 4, section 454.1, as listed in the table above will not be met. The above five (5) Facts and the table of twenty-five (25) unique requirements have been addressed by the Advisory Board. The special condition mitigations for eight (8) code requirements and other specific requirements for safety and health are addressed in the following eleven (11) provisos.

Provisos:

1. 64E-9.004(5) F.A.C. The variance Applicant and Permittee (the pool owner) will ensure that the recirculation treatment manual (or automated) controls provides complete water treatment for at least three (3) full water volume turnovers between each patron's float session. The public pool Permittee must comply with this water treatment regimen. Each float tank shall be provided with a timer to ensure the turnover requirement is met. **Per the specifications provided in the variance application, the (name brand & model) float tank manufactured by (name brand) requires (xx) minutes at (xx) gallons per minute to achieve three (3) turnovers.**
2. 64E-9.004(5) F.A.C. Within two (2) days of starting float sessions, the Permittee shall: use a Department-certified water laboratory to **test for and enumerate E. coli bacteria** from one 100mL water sample collected from each float tank, to be collected once per week for two (2) consecutive weeks, and collected after several client's float sessions on that day, and shall provide laboratory copies of the microbiology test results and the Permittee's water chemistry field test kit results for halogen residual and pH to the Department's Bureau of Environmental Health Water Programs Administrator at xxx within two (2) days of receipt of lab test results.
3. 454.1.6.5.18 FBC: The use of hydrogen peroxide shall be discontinued. **Halogen feeder and filtration system must be certified by an ANSI Nationally Recognized Testing Laboratory** under NSF/ANSI Standard 50 by the variance Applicant and **shall be maintained in good operating order** and in accordance with the sizing requirements of both state codes by the Permittee.
4. The applicable **standards for suction outlet drain covers and equipment area safety features required in section 514.0315, Florida Statutes, must be met** by installation of anti-entrapment devices for daily use of this special purpose public pool by the Applicant, and then **maintained over the life of the float tank by the Permittee (pool owner) to remain in compliance with the law.** Paired suction outlets as defined in the referenced national standard must be at least 36 inches apart and hydraulically balanced.

5. 454.1.2.5 FBC: The Permittee (pool owner) **must provide entrance/exit access on the floor adjacent to the float tank wall with a support handrail.**
6. 454.1.3.1.3 FBC: At least **4 feet of slip resistant wet deck area must be maintained as available for patron egress at the float tank entrance/exit opening** by the Permittee (pool owner) and the operator.
7. 454.1.2.3.5 FBC: The Applicant or Permittee must create and **provide a code compliant pool rules sign with patron rules posted on the wall of the float tank room** that complies with statements from FBC 454.1.2.3.5 1., 5., and 7., and the statements from 454.1.8.13 1. and 3.
8. 454.1.6.5.16.4. and 454.1.6.5.16.6 FBC: The halogen dosing feeder installed per swimming pool code requirements for this float tank **precludes the need for either an UltraViolet light system or an ozone generating system due to each device acts only as an optional supplemental system** that can improve water quality. **If used, the device(s) must comply with the state code sections listed above**, except that NSF/ANSI Standard 50 certification and UV validation by USEPA methods are not required.
9. A list documenting any operational and equipment corrections made to the float tank after the initial operating permit inspection shall be provided to the County Health Department within 7 days of completion. This document shall provide the make and model numbers of any original or replacement equipment installed on the float tank. The department reserves the right to assure these changes meet state codes.
10. 454.1.10.4 and 64E-9.001(3)(b), F.A.C. Before opening to the public, the Operating Permit Applicant, **the Permittee (pool owner), must provide the DOH County Health Department a copy of an approved electrical inspection** that is conducted by the local building department, or by a Florida licensed electrician in accordance with the Florida Building Code. Equipment grounding, equipotential bonding, and Ground-fault Circuit Interrupters (GFCIs) required by the FBC shall be addressed, as shall any electrical appurtenances (float tank lighting, audio systems, system controls, call buttons, etc.).
11. The variance Applicant and Permittee (pool owner) **must provide a slip resistant floor in the float tank** in accordance with the FBC definition of that term at section 454.1 of the code. An ASTM or ANSI test for slip resistance for residential bathtubs can be substituted for ANSI tile slip resistance tests. Additionally, **the floor of the float tank room shall be slip resistant between the float tank for at least 15 feet on the path to both the shower and the restroom** that serve the float tank.