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64E-9.001 General

(1) Regulation of public swimming pools and bathing places is considered by the department as significant in the prevention of disease, sanitary nuisances, and accidents by which the health or safety of an individual(s) may be threatened or impaired.

(a) Any modification resulting in the operation of the pool in a manner unsanitary or dangerous to public health or safety shall subject the state operating permit to suspension or revocation.

(b) Failure to comply with any of the requirements of these rules shall constitute a public nuisance dangerous to health.

(2) This chapter prescribes minimum design, construction, and operation requirements.

(a) The department will accept dimensional standards for competition type pools as published by the National Collegiate Athletic Association, 2008; Federation Internationale de Natation Amateur (FINA), 2005-2009 Handbook; 2006-2007 Official Rules and Code of USA Diving with 2007 Amendments by USA Diving, Inc.; 2008 USA Swimming Rules and Regulations, and National Federation of State High School Associations, Swimming and Diving and Water Polo Rules Book, 2008-2009, which are incorporated by reference in these rules and can be obtained from: NCAA.org, fina.org , usadiving.org, usaswimming.org, and nfhs.org, respectively.

(b) Where adequate standards do not exist and these rules do not provide sufficient guidance for consideration of innovations in design, construction, and operation of proposed swimming pools or water recreation attractions, the department will establish requirements necessary to protect the health and safety of the pool patrons.

(3) All pools which do not meet the definition of private pools are public pools.

(4) The Americans with Disabilities Act of 1990 may relate to public pools and should be reviewed by the design engineer and the pool owner. Chapter 11 and Section 424.1 of the Florida Building Code (2007, with 2009 amendments) also have application to public pools.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.021, 514.03, 514.031, 514.05, 514.06 FS. History–New 10-5-93, Formerly 10D-5.130, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.002 Definitions

(1) "Advanced Level Swimmer" – A person able to swim unassisted for five minutes or more.

(2) "Bathing Load" – The maximum number of persons allowed in the pool or bathing place at one time.

(3) "Closed Pool" – A pool which is not to be used by bathers and is posted with a pool closed sign visible from the pool deck or is inaccessible.

(4)"Collector Tank" – A reservoir, with a minimum of 2.25 square feet water surface area open to the atmosphere, from which the recirculation or feature pump takes suction, which receives the gravity flow

from the main drain line, surface overflow system or feature water source line, and that is cleanable.

(5) "D.E." – is the Diatomaceous Earth that is used as a filter aid in DE type filters. For the purpose of this rule, it also includes alternative filter aids that have been approved under NSF/ANSI Standard 50-2007, and accepted by the filter manufacturer.

(6) "Department" – The Department of Health (DOH), specifically, Division of Environmental Health and county health departments unless specified otherwise.

(7) "Effective Barrier" – A barrier which consists of a building, or equivalent structure, plus a 48 inch minimum height fence on the remaining sides or a continuous 48 inch minimum height fence. All access through the barrier must have one or more of the following safety features: alarm, key lock or self-locking doors and gates. Safety covers that comply with the American Society for Testing Materials standard F1346-91 (2003) may also be considered as an effective barrier.

(8) "Flow Through" – Continuous verifiable inflow and outflow or in the case of spring fed lakes shall be verifiable by continuous outflow.

(9) "Inaccessible" – Enclosed by an effective barrier.

(10) Interactive Water Features – A structure designed to allow for recreational activities with recirculated, filtered, and treated water; but having minimal standing water. Water from the interactive fountain type features is collected by gravity below grade in a collector tank or sump. The water is filtered, disinfected and then pumped to the feature spray discharge heads.

(11) "Lifeguard" – Person responsible for the safety of the users of a public swimming pool.

(12) "Living Unit" – Room(s) or spaces capable of being occupied by an individual or group for temporary or permanent lodging purposes. This includes motel and hotel rooms, apartment units, boarding house rooms, condominium units, travel trailers, recreational vehicles, mobile homes, single family homes, and individual units in multiple unit housing complexes.

(13) "Marking" or "Markings" – Refers to the placement and installation of visual marking cues to help patrons identify step, bench and swimout outlines, slope break location, depth designations, and NO ENTRY and NO DIVING warnings. When markings are specified by code to be dark the term dark shall mean a Munsell Color Value from zero to four.

(14) "Modification" – Any act which changes or alters the original characteristics of the pool as approved. For example, changes in the recirculation systems, decking, treatment systems, disinfection system, and pool shape are modifications.

(15) "NTU" – Nephelometric Turbidity Unit which is a means of measuring water clarity.

(16) "Perimeter Overflow Gutter" – A level trough or ledge around the inside perimeter of the pool containing drains to clean the pool water surface.

(17) "Plunge Pool" – The receiving body of water located at the terminus of a recreational water slide.

(18) "Pool Floor" – The interior pool bottom surface which consists of that area from a horizontal plane up to a maximum of a 45 degree slope.

(19) "Pool Wall" – The interior pool side surfaces which consist of that area from a vertical plane to a 45 degree slope.

(20) "Pool Turnover" – The circulation of the entire pool volume through the filter system. Pool volume shall be determined from the design water level which is the normal operating water level; for gutter type pools is the horizontal plane of the upper lip of the gutter and for skimmer pools is the centerline of the skimmer opening.

(21) "Precoat Pot" – A container with a valved connection to the suction side of the recirculation pump of a pressure diatomaceous earth (D.E.) type filter system used for coating the filter with D.E. powder or NSF/ANSI Standard 50-2007 and manufacturer approved substitute filter aid.

(22) "Private Pool" – See Section 514.011(3), F.S.

(23) "Public Bathing Place" – See Section 514.011(4), F.S. The bathing water areas of public bathing places include lakes, ponds, rivers, springs, streams, and artificial impoundments.

(24) "Public Swimming Pool" or "Public Pool" – See Section 514.011(2), F.S.

(25) "Recirculation System" – The system of piping and mechanics designed to remove the water from the pool then filter, disinfect and return it to the pool.

(26) "River Ride" – A water recreation attraction designed to convey bathers around a relatively flat course using an artificially created current.

(27) "Sanitary Survey" – A professional assessment of any existing and potential sources of pollution of a specific land or water area.

(28) "Slip Resistant" - Having a textured surface which is not conducive to slipping under contact of

bare feet unlike glazed tile or masonry terrazzo and non-textured plastic materials. Manufactured surface products shall be designated by the manufacturer as suitable for walking surfaces in wet areas.

(29) "Spa Pool" – A pool used in conjunction with high velocity air or water.

(30) "Special Purpose Pool" – A public pool used exclusively for a specific, supervised purpose, including springboard or platform diving training, SCUBA diving instruction, and aquatic programs for handicapped individuals, pre-school or kindergarten children.

(31) "Swimming Instructor" - Person who offers progressive swimming instruction.

(32) "Swimming Pool Slide" a slide designed by its manufacturer to discharge over the sidewall of a swimming pool.

(33) "Swim Spa" – A pool used in conjunction with a directional flow of water against which one swims.
(34) "Wading Pool" – A shallow pool designed to be used by children.

(35) "Water Recreation Attraction" – A facility with design and operational features that provide patron recreational activity and purposefully involves immersion of the body partially or totally in the water. Water recreation attractions include water slides, river rides, water course rides, water activity pools, interactive water features, wave pools and any additional pool within the boundaries of the attraction.

(36) "Water Activity Pool" – A water recreation attraction which has water related activities such as rope ladders, rope swings, cargo nets and other similar activities.

(37) "Water Slides" – A water recreation attraction ride which is characterized by having trough-like or tubular flumes or chutes.

(38) "Water Theme Park" – Means a complex with controlled access, fenced and gated attraction where guests enter through a limited number of entrances upon purchase of a ticket. These facilities are permanent and consist of multiple water recreation attractions. Lifeguards are present during all operating hours.

(39) "Water Therapy Facilities" as that term is used in section 514.0115(1), F.S., are pools used exclusively for water therapy to treat a diagnosed injury, illness, or medical condition, wherein the therapy is provided under the direct supervision of a Florida licensed physical therapist, occupational therapist, or athletic trainer; pursuant to a prescription by a physician or a physician's assistant (PA) licensed pursuant to chapters 458 or 459, F.S., a podiatrist licensed pursuant to chapter 461, F.S., or an advanced registered nurse practitioner (ARNP) licensed pursuant to chapter 464, F.S.; and the prescribing physician, PA, podiatrist or ARNP, authorizes a plan of treatment justifying use of the pool for health care purposes.

(40) "Wave Pool" – A water recreation attraction that is characterized by wave action.

(41) "Wet Deck Area" – The four foot wide unobstructed pool deck area around the outside of the pool water perimeter, curb, ladders, handrails, diving boards, diving towers, pool slides, waterfalls, water features, starting blocks, planters, or lifeguard chairs.

(42) "Zero Depth Entry Pool" – A pool where the pool floor continues to slope upward to a point where it meets the surface of the water and the pool deck.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 514.021, 514.03, 514.031, 514.05, 514.06, 514.071 FS. History–New 10-5-93, Formerly 10D-5.131, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.003 Forms

(1) All forms listed in this chapter are herein incorporated by reference and may be obtained from the department, at: http://www.doh.state.fl.us/environment/water/swim/download.html, or write to DOH, Bureau of Water Programs, mail bin C-22, 4052 Bald Cypress Way, Tallahassee 32399-1742, or at the local county health department. The following forms are for use by the department or the public:

(a) DH 1350, 7/08, Public Swimming Pool Engineering Inspection Report.

(b) DH Form 920, Jan. 04, Public Pool and Bathing Place Inspection Report.

(c) DH 921, 3/98, Monthly Swimming Pool Report.

(2) Upon receipt of the following properly completed forms, the department shall approve or deny the following applications in accordance with the provisions of Chapters 120 and 514, F.S.:

(a) DH 4065, 3/98, Application For A Swimming Pool Exemption Status 32 units or less.

(b) DH 1704, 3/98, Application For A Swimming Pool Exemption Status More Than 32 Units.

(c) DH 914, 7/08, Application For Approval Of Swimming Pool Plans.

(d) DH 916, 7/08, Application for Swimming Pool Operating Permit/Authorization.

(e) DH 917, 3/98, Application for a Bathing Place Operating Permit/Authorization.

(f) DH 4063, 3/98, Application for Annual Renewal or Reissuance of Public Swimming Pool/Bathing Place Operating Permit.

(g) DH 4080, 7/08, Application for Variance from Chapter 64E-9, F.A.C.

(h) DH 4144 1/09, Application for Swimming Pool Exemption Status- Water Therapy Facilities

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.0115, 514.021, 514.025, 514.03, 514.031, 514.033 FS. History–New 10-5-93, Formerly 10D-5.132, Amended 12-27-98, 3-30-00, 5-27-04, 5-24-09.

64E-9.0035 Exemptions

(1) A person seeking an initial exemption, or an existing facility claiming to be exempt from department regulation pursuant to the provisions of section 514.0115, F.S., shall apply to the department on forms listed in Rule 64E-9.003, F.A.C. Each such application shall be renewed bi-annually, by July 1st of each even numbered year.

(a) Applicants for a swimming pool exemption pursuant to (2)(a) or (2)(b) or (1), of section 514.0115, FS, shall submit the following information along with the applicable department form listed:

1. For condominiums: the recorded declaration of condominium; the condominium's articles of incorporation; bylaws, and all duly adopted and recorded amendments; supplements, and recorded exhibits thereto; a copy of a plot plan diagram for the proposed property; and form DH 4065 for 32 units or less, or DH 1704 for more than 32 units, or

2. For cooperatives: the articles of incorporation of the association; bylaws, and the ground lease or other underlying lease, if any; the document evidencing a unit owner's membership or share in the association; and the document recognizing a unit owner's title or right of possession to his or her unit; a copy of a plot plan diagram for the proposed property; and a completed form DH 4065 for 32 units or less, or DH 1704 for more than 32 units.

3. For exemption as a water therapy facility pool: along with a completed form DH4144; a written statement signed by a medical professional that they have already, or intend to prescribe medical water therapy for a patient in the pool. This medical professional shall be a physician or a physician's assistant (PA) licensed pursuant to chapters 458 or 459, F.S., a podiatrist licensed pursuant to chapter 461, F.S., or an advanced registered nurse practitioner (ARNP) licensed pursuant to chapter 464, F.S. For subsequent biannual exemption renewals, in addition to the signed written statement from a medical professional as required above, each water therapy facility shall provide a list of the Florida licensed physical therapist(s), occupational therapist(s), and athletic trainer(s) providing therapy in the pool.

(b) For purposes of section 514.0115, FS, the term condominium shall be as defined in chapter 718, FS, and the term cooperative shall be as defined in chapter 719, FS.

(2) A person who sought and received an exemption from public swimming pool regulation, shall contact the department if the conditions upon which the exemption was granted change so as to eliminate the exemption status. Under such circumstances, the pool must be modified in order to comply with the provisions of this chapter and chapter 514, F.S.

(3) An exemption from department rules does not exempt the pool from Florida Building Code (2007 with 2009 amendments) requirements, found in sections 11 and 424.1

Rulemaking Authority 381.006, 514.021 FS. Law Implemented, 514.0115, FS. History-New 5-24-09.

64E-9.004 Operational Requirements

(1) Water Quality – The water supply for all pools shall be an approved potable water system or shall meet the requirements for potable water systems by the submission from the operator of bacteriological and chemical laboratory reports to the county health department. Salt water sources are exempt from the potable water chemical standards except for iron and color requirements.

(a) Cross-connection prevention – An atmospheric break or approved back flow prevention device shall be provided in each pool water supply line that is connected to a public water supply. Vacuum breakers shall be installed on all hose bibbs.

(b) Bacteriological quality – The pool water shall be free of coliform bacteria contamination.

(c) Clarity– The pool water shall be 0.5 or less NTU and the main drain grate must be readily visible from the pool deck.

(d) Chemical quality – Chemicals used in controlling the quality of the pool water shall be tested and approved using the National Sanitation Foundation (NSF-ANSI) Standard 60-2005, Drinking Water Treatment Chemicals-Health Effects dated September, 2005, which is incorporated by reference in these

rules and shall be compatible with other accepted chemicals used in pools. The following parameters shall be adhered to for pool water treatment:

1. pH – 7.2 to 7.8.

2. Disinfection – Free chlorine residual shall be 1 milligram per liter (mg/L) to 10 mg/L, inclusive, in conventional swimming pools and 2 mg/L to 10 mg/L, inclusive, in all other type pools such as spa-type pools and interactive water fountains; bromine residual shall be 1.5 mg/L to 10 mg/L, inclusive, in conventional swimming pools and 3 mg/L to 10 mg/L, inclusive, in all other type pools. Except that, the following maximum disinfectant levels shall apply to indoor conventional swimming pools: 5 mg/L free chlorine or 6 mg/L bromine.

3. When oxidation-reduction potential controllers are required, the water potential shall be kept between 700 and 850 millivolts. Use of these units does not negate the manual daily testing requirement of subsection 64E-9.004(13), F.A.C.

4. Cyanuric acid -100 mg/L maximum in pools, with 40 mg/L as the recommended maximum, and 40 mg/L maximum in spa pools

5. Quaternary ammonium - 5 mg/L maximum

6. Copper – 1 mg/L maximum

7. Silver - 0.1 mg/L maximum

(e) Landscape irrigation water that wets the wet deck area of the pool, the pool itself, enters the collector tank, or wets an interactive water feature must be potable water from a public water system.

(2) Manual addition of chemicals will be allowed under special conditions and requires that the pool be closed prior to addition and for at least 1 hour period after addition or a longer period as necessary for sufficient and safe distribution of the chemical. After treatment for breakpoint chlorination and algae prevention, use of the pool can be resumed when the free chlorine levels drop to 10 mg/L.

(3) Cleanliness – The pool and pool deck shall be kept free from sediment, floating debris, visible dirt and algae. Pools shall be refinished when the pool surfaces cannot be maintained in a safe and sanitary condition.

(4) Food and beverages are prohibited in the pool and on the pool wet deck area; animals and glass containers are prohibited within the fenced pool area, or 50 feet from pool edge when no fence exists.

(5) The pool recirculation system must be operated at all times when the pool is open for use. The recirculation system may be shut off three hours after the pool closes but must resume operation three hours before opening the pool. Shut down time must be controlled by a time clock.

(6) The pool water level must be maintained at an elevation suitable for continuous skimming without flooding during periods of non-use.

(7) All equipment and appurtenances shall be kept in good repair.

(8) When use of a public swimming pool requires an admission or a membership fee, the most recent pool inspection report shall be posted in plain view of existing and potential members and patrons.

(9) Sanitary facilities shall be maintained in a clean and sanitary condition and sanitary supplies such as toilet paper, paper towels or blow dryer, soap and waste baskets shall be provided.

(10) Footbaths are prohibited.

(11) Test kits are required to be on the premises of all pools to determine free active chlorine and total chlorine using N,N-Diethyl-p-Phenylenediamine (DPD), or bromine level, total alkalinity, calcium hardness, and pH.

(a) The following test kits shall be provided if the corresponding chemicals are used: cyanuric acid, sodium chloride, quaternary ammonium, ozone and copper.

(12) Activity accessories such as volleyball and basketball nets may be used for designated times provided a clear four foot deck area is maintained behind the structures. When the pool is open for general use such accessories must be removed.

(13) The keeping of a daily record of information regarding pool operation, using the Monthly Swimming Pool Report – DH 921 3/98, obtained from the local county health department, shall be the responsibility of the pool owner or operator. Customized report forms may be substituted provided they contain the appropriate information and are acceptable to the department. The completed report shall reflect manually conducted pool water tests for pH and disinfectant levels at least once every 24 hours, and weekly testing for cyanuric acid when chlorinated isocyanurates are used at spas and pools, and shall be retained at the pool or submitted monthly as required by the local health department. DH 921, 3/98, may be obtained at the local county health department. For the purposes of daily testing of the pool water and keeping of the Monthly Swimming Pool Log, the requirements of Rule 64E-9.018, F.A.C., are not applicable. (14) Should a human fecal accident occur, the pool operator or owner shall comply with all recommendations found in the Centers for Disease Control and Prevention's (CDC) "Fecal accident response recommendations for Aquatics Staff' dated February 15, 2008, found on the department's internet web site: http://www.floridashealth.org/Environment/water/swim/index.html. Alternative emergency disinfection methods developed by industry, or by the application of new disinfection technology, or by the use of chemical disinfectants that are effective, safe and appropriate for public bathing facilities, and are approved by the CDC, may also be used.

(15) For pools used at night or when adequate natural lighting is not available, the lighting requirements of 64E-9.006(2)(c) shall be met.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.021, 514.03, 514.031, 514.05, 514.06 FS. History–New 10-5-93, Formerly 10D-5.133, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.005 Construction Plan or Modification Plan Approval

It is unlawful for any person(s) to begin construction or modification of any public pool without first having received written approval from the department. Unapproved pools and proposed modifications to previously approved aspects of pools shall satisfy the requirements of the rules in effect at the time of project plans submittal. The department shall allow flow velocities through the main drain and surface overflow system piping which exceed those specified in subsection 64E-9.007(8), F.A.C., when retrofitting the pool recirculation system with a collector tank. However, the design engineer must provide appropriate calculations justifying the design. The flow rate through the main drain grating shall not exceed 1.5 feet per second.

(1) Construction Plan Approval – In counties where the county health department is delegated authority to review and approve plans, projects shall be submitted by the design engineer directly to these county health departments. Projects in all other counties shall be submitted either to the Bureau of Water Programs, 4052 Bald Cypress Way, BIN C-22, Tallahassee, FL 32399-1742 or to the Bureau of Water Programs, 400 West Robinson Street, Suite S-532, Orlando, FL 32801-1752 as appropriate.

(a) The following shall be submitted for each pool with a separate filter system. Except that when several pools are to be constructed at the same site, at the same time, those pools can be submitted on the same set of plans. Each submittal shall include six sets of original applications and drawings or the number required by the reviewing entity:

1. Form DH 914.

2. Construction drawings of the project which contain sufficient detail to clearly apprise the department of the work to be undertaken which includes a site map with nearest cross streets and major thoroughfares, all views of the pool including dimensions, equipment area or enclosure, project layout and location, sanitary facility detail and location, a scaled site plan, a property survey (if available), a pool equipment list including the manufacturer or distributor names, model numbers, and catalog numbers or equipment description. All prints shall be drawn to a standard scale and shall be a minimum size of 18×24 inches and a maximum size of 36×42 inches. The details on the drawings shall be satisfactory for photographic reproduction. Color coded drawings are not acceptable. A four by six inch blank space shall be left vacant on the lower right hand corner or directly above the title block on each sheet.

3. Fees for each pool as required by Rule 64E-9.015, F.A.C.

4. If available, an electronic copy of the plans in PDF, TIF, DWG, or JPEG format.

(b) All drawings and applications shall be prepared, signed and sealed by a professional engineer, licensed in the State of Florida under provisions of Chapter 471, F.S., and shall fulfill the requirements of Section 471.025, F.S.

(c) If the initial application is not complete, the reviewing engineer shall request the information needed to complete the application.

(d) If the engineering plans are substantially in compliance with these rules, provisional approval shall be granted and the approval shall state all necessary corrective action to be completed prior to issuance of the operating permit. Provisional approvals require that a copy of the provisos be attached to each set of approved plans and the plans shall be marked provisional.

(e) Upon approval, the plans and applications not required for use by the department shall be delivered to the design engineer for distribution to the owner and pool contractor. There shall be one complete set of approved plans and documents on the pool construction site at all times during construction.

(f) Revision of approved plans prior to construction must have written approval from the department.

Revision of plans after construction commencement shall be considered a modification.

(g) Individual pieces of equipment which are equivalent to equipment specified on the approved plans may be substituted during construction provided the engineer justifies the equivalency to the department along with the authorization application. Equipment packages, piping, and filters do not qualify for substitution without prior written plans approval from the department.

(h) If construction of the pool shell has not commenced within one year from the date of plans approval, the approval shall expire. After plans approval expires, and there have been no changes to Chapter 64E-9, FAC, that affect the proposed plans, the applicant may submit the same plans to the department for re-approval, along with the fee established in 64E-9.015(1)(b). If there have been changes to Chapter 64E-9, FAC. that affect the proposed plans, or if the plans differ from the original submission, then the applicant must submit the fee established in 64E-9.015(1)(a).

(i) Upon completion of the project the following shall be submitted for each pool to the reviewing entity: 1. Form DH916, incorporated by reference at paragraph 64E-9.003(2)(d), F.A.C., bearing original

signatures of all required signatories and the seal of the professional engineer and three copies.

2. Fees for each pool as required by Rule 64E-9.015, F.A.C.

3. When night swimming is proposed, an engineer licensed in Florida shall provide certification that the deck and surface lighting requirements of paragraph 64E-9.006(2)(c), F.A.C., have been met.

(j) After satisfactory and timely correction of any deficiencies following the final construction inspection conducted by the department, the initial operating permit will be issued.

(2) Modifications – Modifications include non-equivalent changes or additions to the recirculation system, treatment equipment, physical structure, or appurtenances. Replacement of the pool or spa shell is considered to be construction of a new facility and shall be processed as such. The installation of new decking is not considered a modification if it is installed in conformance with paragraph 64E-9.006(2)(a), F.A.C., and deck markings are upgraded per subparagraph 64E-9.006(1)(c)3., F.A.C. Resurfacing the pool interior to original non-toxic slip-resistant and smooth specifications or equivalent replacement of equipment are not considered modifications. However, the following items shall be addressed during resurfacing projects:

(a) The lip of the gutter must be leveled to within 1/4 inch between the highest and lowest point and the downward slope from the lip to the drain must be maintained as originally designed or increased, but shall not exceed new construction standards.

(b) Tile step markings must be installed meeting the requirements of subparagraph 64E-9.006(1)(d)3., F.A.C.

(c) Where applicable the slope break marking must be installed meeting the requirements of subsubparagraph 64E-9.006(1)(c)2.b., F.A.C., and the safety line must be installed two feet before the marking.

(d) Depth markers and NO DIVING markers must be installed in accordance with subparagraph 64E-9.006(1)(c)3., F.A.C.

(e) The pool ladder must have a three to six inch clearance from the pool wall. New cross braced ladder(s) shall be installed in place of non-cross braced ladder(s) in conformance with 64E-9.006(1)(d)1. during a pool re-surfacing

(f) Should resurfacing works affect the step riser heights, no riser shall exceed 12 inches and the intermediate risers shall be made uniform.

(g) When fiberglass is used to resurface a pool any existing tile shall not be covered by the fiberglass finish.

(h) The County Health Department shall be notified in writing of any proposed pool resurfacing or upgrades to decking at least 10 days prior to commencement. The notification shall include an itemized list of all proposed work that is to be performed, the license number of the contractor selected and shall indicate that all work will meet the requirements of paragraphs 64E-9.005(2)(a) through (g), F.A.C.

(i) Upon completion of the work the licensed contractor shall provide the County Health Department a letter bearing their license number which certifies that the work was completed in accordance with paragraphs 64E-9.005(2)(a) through (g), F.A.C.

(j) Recessed treads that protrude from the pool wall shall be removed and replaced with a cross braced ladder or reconstructed to meet the requirements of Chapter 64E-9.006(1)(d)2.

(3) Approval for pool modifications shall be obtained in the same manner as a construction approval as outlined in subsection 64E-9.005(1), F.A.C., above.

(4) Upon completion of an approved modification, written certification signed by the pool contractor,

electrical contractor or inspector and signed and sealed by the engineer shall be provided to the department. This shall read as follows: "I certify that to the best of my knowledge and belief, the modification construction and equipment installation has been completed in conformance with the approved plans and documents."

(5) Upon completion of a modification, the pool shall not be reopened without authorization from the department.

(6) The painting of pools shall not be considered a modification provided the following conditions are met:

(a) Only paints designated by the manufacturer as pool paints are used.

(b) All step stripes, slope break markers and safety line, and depth and NO DIVING markings shall be provided to comply with the applicable subsection 64E-9.005(2), F.A.C.

(7) The installation of copper or copper/silver ionization units and ozone generators capable of producing less than a pool water ozone contact concentration of 0.1 milligrams per liter (mg/L). shall not be considered a pool modification provided compliance with the following is met:

(a) The ionization or ozone generator unit complies with paragraph 64E-9.007(16)(e), F.A.C.

(b) The manufacturer provides one set of signed and sealed engineering drawings indicating the following:

1. The unit does not interfere with the design flow rate.

2. The unit and the typical installation meet the requirements of the National Electrical Code.

3. A copper test kit and information regarding the maximum allowed copper and silver level and the minimum required chlorine level shall be available to the pool owner.

4. The unit shall meet the requirements of the NSF/ANSI standard 50-2007.

(c) At least 7 days before the time of installation, the installer will provide a photocopy of the above drawings and a letter of intent identifying the pool on which the unit is to be installed.

(d) Upon completion of the installation, a professional engineer or electrician licensed in the State of Florida shall provide a letter, to the county health department, indicating the unit was properly installed in accordance with the typical drawings, the National Electrical Code and with local codes.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.021, 514.025, 514.03, 514.031, 514.05, 514.06 FS. History–New 10-5-93, Formerly 10D-5.134, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.006 Construction Plan Approval Standards

(1) Pool Structure – Pools shall be constructed of concrete or other impervious and structurally rigid material. All pools shall be watertight, free from structural cracks and shall have a nontoxic smooth and slip resistant finish. All materials shall be installed in accordance with manufacturer's specifications unless such specifications violate Chapter 64E-9, F.A.C., rule requirements or the approval criteria of NSF/ANSI Standard 50-2007 or NSF/ANSI Standard 60-2005.

(a) Floors and walls shall be white or light pastel in color and shall have the characteristic of reflecting rather than absorbing light. A minimum 4 inch tile line, each tile a minimum size of one inch on all sides, shall be installed at the water line, but shall not exceed 12 inches in height if a dark color is used. Gutter type pools may substitute 2-inch tile, each a minimum size of one inch on all sides, along the pool wall edge of the gutter lip.

1. Any design or logo on the pool floor or walls shall be such that it will not hinder the detection of a human in distress, algae, sediment, or other objects in the pool and written approval must be obtained from the department prior to installation.

2. Pools that are not intended to be utilized for officially sanctioned competition may install lap lane markings provided they meet the following criteria: The markings must be 2 to 6 inches wide, they must terminate five feet from the end wall in a "T" with the "T" bar at least 18 inches long, they must be placed at 7 foot intervals on center and be no closer than 4 feet from any side wall, steps or other obstructions. A 2 to 6 inch wide 18 inch \times 18 inch target (+) may be installed on the pool wall. Tile used in less than 5 feet of water must be slip resistant. Floating rope lines associated with lap lanes must not obstruct the entrance or exit from the pool and are prohibited when the pool is open for general use.

3. One inch square tile may be used if the licensed contractor provides a signed written certification to the approving department engineer that the adhesive used on the one inch square tile has a manufacturer's tested shear strength of at least 250 psi and the manufacturer has specified the adhesive for use underwater

to adhere the type of tile used (vitreous (glass) or ceramic). Tiles shall not have sharp edges exposed that could cause bather injury.

(b) Sizing – The bathing load for conventional swimming pools, wading pools, interactive water features, water activity pools less than 24" deep, and special purpose pools shall be computed on the basis of one person per five gallons per minute (gpm) of recirculation flow. The bathing load for spa type pools shall be based on one person per each 10 square feet of surface area. The filtration system for swimming pools shall be capable of meeting all other requirements of these rules while providing a flowrate of at least one gallon per minute for each living unit at transient facilities and three-fourths gallon per minute at non-transient facilities. Recreational vehicle sites, campsites and boat slips designated for live-aboards shall be considered a transient living unit. For properties with multiple pools, this requirement includes the cumulative total GPM of all swimming pools, excluding spas, wading pools and interactive water features. All other types of projects shall be sized according to the anticipated bathing load and proposed uses. For the purpose of determining minimum pool size only, the pool turnover period used cannot be less than three hours.

(c) Dimensions.

1. Walls and corners – All pool walls shall have a clearance of 15 feet perpendicular to the wall (as measured at design water level from gutter lip to gutter lip, or on skimmer pools, from vertical wall to vertical wall). Offset steps, spa coves, spa pools and wading pools are exempt from this clearance requirement. Where interior steps protrude into the pool resulting in less than 15 feet of clearance from any wall such protrusion shall not exceed six feet on any perpendicular line from a tangent to any pool wall from which the steps emanate. The upper part of pool walls in areas five feet deep or less shall be within five degrees of vertical for a minimum depth of two and one-half feet from which point the wall may join the floor with a maximum radius equal to the difference between the pool depth and two and one-half feet. The upper part of pool water depth minus two and one-half feet from which point the wall may join the floor with a maximum radius of two and one-half feet. Corners shall be a minimum 90 degree angle. The corner intersections of walls which protrude or angle into the pool water area shall be rounded with a minimum radius of two inches. This radius shall be continued through the top of the gutter edge; chamfering is allowed. Pool coping shall not overhang into the pool more than one and a half inches.

2. Pool Floor Slope and Slope Transition – The radius of curvature between the floor and walls is excluded from these requirements. Multiple floor levels in pools are prohibited.

a. Floor slope shall be uniform. The floor slope shall be a maximum one foot vertical in ten feet horizontal and a minimum of one foot vertical in forty feet horizontal in areas five feet deep or less. The floor slope shall be a maximum one foot vertical in three feet horizontal in areas more than five feet deep.

b. Any transition in floor slope shall occur at a minimum of five feet of water depth. A slope transition must have a 2 to 6 inch wide dark contrasting tile marking across the bottom and must extend up both sides of the pool at the transition point. The marking shall be continuous except for necessary grouting. A slope transition must have a safety line mounted by use of recessed cup anchors, two feet before the contrasting marking, towards the shallow end. The safety line shall have visible floats at maximum seven foot intervals.

3. Depths and Markings – The minimum water depth shall be three feet in shallow areas and four feet in deep areas.

a. Permanent depth markings followed by the appropriate full or abbreviated words "FEET", "FT" or "INCHES", "IN", shall be installed in minimum four inch high numbers and letters on a contrasting background. Depth markers shall indicate the actual pool depth, within three inches, at normal operating water level when measured three feet from the pool wall. Symmetrical pool designs with the deep point at the center may be allowed provided a dual marking system is used which indicates the depth at the wall and at the deep point.

b. At a minimum, the markings shall be located on both sides of the pool at the shallow end, slope break, deep end wall and deep point (if located more than five feet from the deep end wall). Depth markings shall be legible from inside the pool and also from the pool deck. The maximum perimeter distance between depth markings is 25 feet. Pool size and geometry may necessitate additional depth marking placements about all sides of the pool to meet this requirement. When a curb is provided, the depth markings shall be installed on the inside and outside or top of the pool curb. When a pool curb is not provided, the depth markings shall be located on the inside vertical wall at or above the water level and on the edge of the deck within 2 feet of the pool water. When open type gutter designs are utilized, depth markers shall be located

on the back of the gutter wall.

c. When deck level perimeter overflow systems are utilized, additional depth marking signs shall be posted nearby or placed on adjacent fencing or walls and the size shall be increased so they are recognizable from inside the swimming pool. Alternatively tile depth markers may be placed at the top of the pool wall just under the water level. Depth markers placed on the pool deck shall be within 3 feet of the water.

d. Those areas of the pool that are not part of an approved diving bowl shall have dark contrasting tile four inch high "NO DIVING" markings installed along the perimeter of the pool on the top of the pool curb or deck within two feet of the pool water with a maximum perimeter distance of 25 feet between markings. A 6-inch tile with a 4-inch or larger red, international "NO DIVING" symbol may be substituted for the "NO DIVING" markings.

e. All markings shall be tile, except that pools constructed of fiberglass, thermoplastic or stainless steel may substitute other type markings when it can be shown that said markings are permanent and will not fade over time. This exemption does not extend to concrete pools that are coated with fiberglass. Tile alternative examples include stone or manufactured plaques with engraved or sandblasted numbers and characters with permanent paint. Permanent appliqués may be used for fiberglass, thermoplastic or stainless steel pools. All markings installed on horizontal surfaces shall have a slip resistant finish. Markings shall be flush with the surrounding area where placed and recessed if necessary to provide a smooth finish that will avoid creation of an injury hazard to bathers. Pools that are not conducive to tile can employ other equivalent markings as stated above.

(d) Access– All pools shall have a means of access every 75 feet of pool perimeter with a minimum of two, located so as to serve both ends of the pool. In addition, an access point shall be provided at the deep portion, if the deep portion is not at one end of the pool. When the deep portion of the pool is over 30 feet wide both sides of this area shall have a means of access. Access shall consist of ladders, stairs, recessed treads or swimouts and may be used in combination. All treads shall have a slip resistant surface.

1. Ladders – Ladders shall be of the cross-braced type and shall be constructed of corrosion resistant materials and be securely anchored into the pool deck. Clearance between the ladder and pool wall shall be between three to six inches. Ladders shall extend at least 28 inches and no more than 40 inches above the pool deck. Ladder bottom braces shall have intact end caps or bumpers that rest firmly against the pool wall. The top rung of the ladder shall be at or below the water level on open gutter pools and not more than 12 inches below the deck or curb top on all other type pools.

2. Recessed Treads – Recessed treads shall be installed flush with the wall and shall be a minimum five inches wide, 10 inches long, with a maximum vertical distance of 12 inches between treads.

3. Stairs – Stairs shall have a minimum tread width of 10 inches and a maximum width of 48 inches for a minimum tread length of 24 inches and a maximum riser height of 10 inches. Treads and risers between the top and bottom treads shall be uniform to within 1/2 inch in width and height. The riser heights shall be measured at the marked step edges and the differences in elevation shall be considered the riser heights. The front 3/4 to 2 inches of the tread and the top 2 inches of the riser shall be tile, dark in color, contrasting with the interior of the pool. Tile shall be slip resistant. Bullnose tile that is slip resistant may be used when the 3/4ths inch segment is placed on the tread or horizontal surface and the 2 inch segment is placed on the riser shall be slip resistant. Vinyl liner and fiberglass pools may use other material for the step edge marking, provided the material is permanent, permanently secured, dark in color, non-fading, and slip resistant.

4. Swimouts – Swimouts shall extend 18 to 24 inches back from the pool wall, shall be 4 to 5 feet wide, shall be a maximum of 12 inches below the deck, unless stairs are provided in the swimout, and shall be located only in areas of the pool greater than 5 feet deep. Pools that do not utilize a continuous perimeter overflow system must provide a wall return inlet in the swimout for circulation. A permanent dark contrasting colored band of tile shall be installed at the intersection of the pool wall and the swimout and must extend two inches on the horizontal and vertical surfaces. Tile must be slip resistant. Bullnose tile may be substituted and installed in accordance with subparagraph 64E-9.006(1)(d)3., F.A.C., above.

5. Handrails and Grabrails – Handrails shall be provided for all stairs, shall be anchored in the bottom step and the deck. Where "figure 4" deck mounted type handrails are used, they shall be anchored in the deck and extend laterally to any point vertically above the bottom step. Grabrails must be mounted in the pool deck at each side of recessed steps. Handrails and grabrails shall extend between 28 and 40-inches above the step edge and deck.

6. Permanent or portable steps, ramps, handrails, lifts, or other devices designed to accommodate handicapped individuals in swimming pools may be provided. Lifts mounted into the pool deck shall have a minimum four foot wide deck behind the lift mount.

(e) The pool water area shall be unobstructed by any type structure unless justified by engineering design as a part of the recirculation system. Engineering design and material specifications shall show that such structures will not endanger the pool patron, can be maintained in a sanitary condition and will not create a problem for sanitary maintenance of any part of the pool, pool water, or pool facilities. Structures in accord with the above shall not be located in a diving bowl area or within 15 feet of any pool wall.

1. Stairs, ladders and ramps, necessary for entrance/exit from the pool are not considered obstructions.

2. Underwater seat benches may be installed in areas less than five feet deep. Bench seats must be 14 to 18 inches wide and must have a dark contrasting tile marking on the seat edge extending two inches on the horizontal and vertical surface. Tile shall be slip resistant. Bullnose tile may be substituted and installed in accordance with subparagraph 64E-9.006(1)(d)3., F.A.C. Vinyl liner, stainless steel, and fiberglass pools may use other material for the bench edge marking as detailed in 64E-9.006(1)(c)3.e. above, provided the material is permanently secured, dark in color, non-fading, and slip resistant. Benches shall not protrude into the 15 foot clearance requirement of subparagraph 64E-9.006(1)(c)1., F.A.C.

(f) The vertical clearance above the pool deck shall be at least seven feet.

(g) Diving Areas – Diving facilities shall meet the minimum requirements of the FINA dimensions for diving facilities in accordance with the 2005-2009 FINA Handbook.

1. Diving boards or platforms with heights of less than the established standard shall meet the dimensional requirements of the next greater height.

2. Diving boards, platforms and ladders shall have a nonabsorbent, slip resistant finish and be of sufficient strength to safely carry the anticipated loads. Diving equipment one meter and greater shall have guard rails which extend to the edge of the pool wall. All diving boards over 21 inches from the deck shall be provided with a ladder. Diving boards or platforms shall not be installed on curved walls where the wall enters into the defined rectangular diving area specified in this section. Adjacent platform and diving boards shall be parallel.

3. The location of pool ladders shall be such that the distance from the ladder to any point on a diving board or platform centerline is not less than the plummet to side wall dimension (b) indicated in the FINA standards. Trampoline type diving facilities are prohibited.

4. Diving targets may be installed in accordance with FINA standards.

(2) Pool Appurtenances.

(a) Decks and Walkways – Wooden decks and walkways are prohibited.

1. Pool wet decks shall have a minimum unobstructed width of four feet around the perimeter of the pool, pool curb, ladders, handrails, diving boards, diving towers, and slides, shall be constructed of concrete or other nonabsorbent material having a smooth slip resistant finish and shall be uniformly sloped at a minimum of two percent to a maximum of four percent away from the pool or to deck drains to prevent standing water. Textured deck finishes that provide pitting and crevices of more than three-sixteenths inch (3/16") deep that accumulate soil are prohibited. If settling or weathering occurs that would cause standing water, the original slopes shall be restored or corrective drains installed. When a curb is provided, the deck shall not be more than 10 inches below the top of the curb. Wet deck area finishes shall be designed for such use and shall be installed in accordance with the manufacturer's specifications. Traffic barriers shall be provided as needed so that parked vehicles do not extend over the deck area. Walkways shall be provided between the pool and the sanitary facilities, and shall be constructed of concrete or other nonabsorbent material having a smooth slip resistant finish for the first 15 feet of the walkway measured from the nearest pool water's edge. A hose bibb with a vacuum breaker shall be provided to allow the deck to be washed down with potable water.

2. Ten percent of the deck along the pool perimeter may be obstructed. Obstructions shall have a wet deck area behind or through them, with the near edge of the walk within 15 feet of the water except approved slide obstructions shall have the near edge of the walk within 35 feet of the water. These obstructions must be protected by a barrier or must be designed to discourage patron access. When an obstruction exists in multiple areas around the pool the minimum distance between obstructions shall be four feet.

3. Food or drink service facilities shall not be located within 12 feet of the water's edge.

(b) Bridges and overhead obstructions over the pool shall be designed so they will not introduce any contamination to the pool water. The minimum height of the bridge or obstruction shall be at least eight

feet from the bottom of the pool and at least four feet above the surface of the pool. Minimum 42 inch high handrails shall be provided along each side of the bridge. The walking surfaces shall be constructed of concrete or other nonabsorbent material having a smooth slip resistant finish. Pool coping shall not overhang into the pool more than one and a half inches.

(c) Lighting – Artificial lighting shall be provided at all swimming pools which are to be used at night or which do not have adequate natural lighting so that all portions of the pool, including the bottom, may be readily seen without glare.

1. Outdoor pool lighting – Lighting shall provide a minimum of three foot candles of illumination at the pool water surface and the pool wet deck surface. Underwater lighting shall be a minimum of one-half watt per square foot of pool water surface area.

2. Indoor pool lighting – Lighting shall provide a minimum of 10 foot candles of illumination at the pool water surface and the pool wet deck surface. Underwater lighting shall be a minimum of eight-tenths watt per square foot of pool surface area.

3. Underwater lighting – Underwater lighting shall utilize transformers and low voltage circuits with each underwater light being grounded. The maximum voltage for each light shall be 15 volts and the maximum incandescent lamp size shall be 300 watts. The location of the underwater lights shall be such that the underwater illumination is as uniform as possible and shall not be less than 18 inches below the normal operating water level determined by the centerline of the skimmer or top lip of the gutter. All underwater lights which depend upon submersion for safe operation shall have protection from overheating when not submerged. Underwater lighting requirements can be waived when the overhead lighting provides at least 15 foot candles of illumination at the pool water surface and pool wet deck surface. Alternative lighting systems which use 15 volts or less, or use no electricity in the pool or on the pool deck, such as LED, (light emitting diode) or fiber optic systems, may be utilized if the applicant demonstrates to reasonable certainty that the system development has advanced to the point where the department is convinced that the pool illumination is equal to the requirements in subparagraph 1. and 2. above.

4. Overhead wiring – Overhead service wiring shall not pass within an area extending a distance of 10 feet horizontally away from the inside edge of the pool walls, diving structures, observation stands, towers, or platforms. Allowances for overhead conductor clearances to pools that meet the safety standards in the National Electrical Code may used instead.

(d) Electrical Equipment and Wiring – Electrical equipment wiring and installation including the grounding of pool components shall conform with the National Fire Protection Association 70, National Electrical Code (NEC), 2008 Edition, effective August 15, 2007, and with applicable local codes. The NEC is incorporated by reference in these rules and is available from the National Fire Protection Association, Quincy Massachusetts. A signature shall be provided on form DH916 from the electrical contractor or the electrical inspector certifying of compliance with the National Electrical Code. Where emergency cut-off switches are provided on existing or new pools, the alarm and signage specified in 64E-9.010(16) for spa pools shall be provided within 180 days of effective date of this rule.

(e) Equipment Enclosures, Area or Rooms – Equipment designated by the manufacturer for outdoor use may be located in an equipment area, all other equipment must be located in an equipment room or enclosure. Plastic pipe subject to a period of prolonged sunlight exposure must be coated to protect it from ultraviolet light degradation. An equipment area shall be surrounded with a fence at least four feet high on all sides not confined by a building or equivalent structure. A self-closing and self-latching gate with a locking device shall be provided if necessary for access. An equipment room shall be protected on at least three sides and overhead. The fourth side may be a gate, fence, or open if otherwise protected from unauthorized entrance. Any fence or gate installed shall use members spacing that shall not allow passage of a 4 inch diameter sphere. An equipment enclosure shall be lockable or otherwise protected from unauthorized access. This access security shall be installed on all pool equipment areas by one year from the effective date of this rule for those that do not presently have a similar level of security. The equipment enclosure, area or room floor shall be of concrete or other nonabsorbent material having a smooth slip resistant finish and shall have positive drainage, including a sump pump if necessary. Ancillary equipment, such as a heater, not contained in an equipment enclosure or room shall necessitate an equipment area as described above, which shall also be installed by one year from the effective date of this rule.

1. Ventilation and Access – Equipment enclosures or rooms shall have either forced draft or cross ventilation. All below grade equipment rooms shall have a stairway access with forced draft ventilation or a fully louvered door and powered intake within 6 inches of the floor. Where stairway access is not necessary to carry heavy items into the below grade room or vault, a "ship's ladder" may be used if specified by the

design engineer who must consider anticipated workload including equipment removal; and the ladder slope, tread height and width; and construction material of the ladder. The opening to the equipment room or area shall be a minimum of three feet by six feet and shall provide easy access to the equipment. A hose bibb with vacuum breaker shall be located in the equipment room or area.

2. Size and Lighting – The size of the equipment enclosure, room or area shall provide working space to perform routine operations. Clearance shall be provided for all equipment as prescribed by the manufacturer to allow normal maintenance operation and removal without disturbing other piping or equipment. Equipment enclosures, rooms or areas shall not be used for storage of chemicals emitting corrosive fumes or for storage of other items to the extent that entrance to the room for inspection or operation of the equipment is impaired. In rooms with fixed ceilings, the minimum height shall be seven feet. Equipment enclosures, rooms or areas shall be lighted to provide 30 foot candles of illumination at floor level.

(f) Sanitary Facilities – Swimming pools with a bathing load of 20 persons or less may utilize a unisex restroom. Pools with bathing loads of 40 persons or less may utilize two unisex restrooms or meet the requirement on the chart below. Unisex restrooms shall meet all the requirements for materials, drainage and signage as indicated in subparagraphs 64E-9.006(2)(f)2. through 7. below. Each shall include a water closet, a diaper change table, a urinal, and a lavatory. Pools with a bathing load larger than 40 persons shall provide separate sanitary facilities labeled for each sex. The entry doors of all restrooms must be located within a 200 foot walking distance of the nearest water's edge of each pool served by the facilities.

1. Fixtures shall be provided as indicated on the following chart. ÷ The fixture count on this chart is deemed to be adequate for the pool and pool deck area that is up to three times the area of the pool surface provided.

Size of Pool	Required Fixture Count				
(square feet)	Men' s Rest		Restroom	Women' s Restroom	
	Urinals	WC	Lavatory	WC	Lavatory
0-2500	1	1	1	1	1
2501-5000	2	1	1	5	1
5001-7500	2	2	2	б	2
7501-10000	3	2	3	8	3

An additional set of fixtures shall be provided in the men's restroom for every 7,500 square feet or major fraction thereof for pools greater than 10,000 square feet. Women's restrooms must have a ratio of three to two water closets provided for women to the combined total of water closets and urinals provided for men. Lavatory counts shall be equal.

2. Outside access to facilities shall be provided for bathers at outdoor pools. Where the restrooms are located within an adjacent building and the restroom doors do not open to the outside, the restroom doors shall be within 50 feet of the buildings exterior door. If the restrooms are not visible from any portion of the pool deck, signs shall be posted showing directions to the facilities. These directions shall be legible from any portion of the pool deck and the letters shall be a minimum of one inch high.

3. Sanitary facility floors shall be constructed of concrete or other nonabsorbent materials and shall have a smooth slip resistant finish and shall slope to floor drains. Carpets, duckboards and footbaths are prohibited. The intersection between the floor and walls must be coved where either floor or wall is not made of waterproof materials such as tile or vinyl.

4. Poolside sanitary facilities are not required if all living units are within a 200 foot horizontal radius of the nearest water's edge, are not over three stories in height, unless serviced by an elevator, and are each equipped with private sanitary facilities.

5. A hose bibb with vacuum breaker shall be provided in or within 25 feet of each restroom to allow for ease of cleaning.

6. When multiple fixture sets are required and separate facilities are provided for each sex the fixtures used in ancillary family style restrooms can be used to meet the requirements of subparagraph 64E-9.006 (2)(f)1, F.A.C.

7. One diaper changing tables shall be provided at each restroom. Diaper changing tables are not required at restrooms where all pools served are restricted to adult use only. Swim diapers are recommended for use by children that are not toilet trained. Persons that are ill with diarrhea can not enter the pool.

(g) Rinse shower – A minimum of one rinse shower shall be provided on the pool deck of all outdoor pools within 20 feet of the nearest pool water's edge.

(h) All public pools shall be surrounded by a minimum 48 inch high fence or other substantial barrier approved by the department. The fence shall be continuous around the perimeter of the pool area that is not otherwise blocked or obstructed by adjacent buildings or structures and shall adjoin with itself or abut to the adjacent members. Access through the barrier or fence from dwelling units such as homes, apartments, motel rooms, and hotel rooms, shall be through self-closing self-latching lockable gates of 48 inch minimal height from the floor or ground with the latch located a minimum of 54 inches from the bottom of the gate or at least 3 inches below the top of the gate on the pool side. If the self-closing self-latching gate is also self-locking and is operated by a key lock, electronic opener, or integral combination lock, then the operable parts of such locks or openers shall be 34 inches minimum and 48 inches maximum above the finished floor or ground. Doored access points from public rooms such as lobbies or club houses need not be through gates. Gates shall open outward away from the pool area. A latched, lockable gate shall be placed in the fence within ten feet of the closest point between the pool and the equipment area for service access.

Instead of a fence, permanent natural or man-made features such as bulkheads, canals, lakes, navigable waterways, etc., adjacent to a pool may be permitted as a barrier when approved by the department. When evaluating such barrier features, the department may perform onsite inspections, and review evidence, such as surveys, aerial photographs, water management agency standards and specifications, and any other similar documentation to verify at minimum, the following: the barrier feature is not subject to natural changes, deviations, or alterations and is capable of providing an equivalent level of protection as that provided by a structure, and the barrier feature clearly impedes, prohibits or restricts access to the pool.

Screened pool enclosures must be hardened on the bottom three feet. Fencing consideration shall be given to the U.S. Consumer Product Safety Commission (CPSC) Publication No. 362, March 2005, guidelines available from CPSC.gov; or the Florida Building Code, 2007 with 2009 amendments, sections 424.2.17.1.1 – 424.2.17.1.8 Safety Covers that comply with ASTM Standard F1346-91 (Reapproved 2003), titled Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs, and available from ASTM.org , do not satisfy this requirement.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.021, 514.03, 514.031, 514.05, 514.06 FS. History–New 10-5-93, Formerly 10D-5.135, Amended 12-27-98, 5-27-04,5-24-09.

64E-9.007 Recirculation and Treatment System Requirements

(1) Recirculation and treatment equipment such as filters, recessed automatic surface skimmers, ionizers, ozone generators, disinfection feeders and chlorine generators must be tested and approved using the NSF/ANSI Standard 50-2007, Circulation System Components and Related Materials for Swimming Pool, Spas/Hot Tubs, dated April, 2007, which is incorporated by reference in these rules. The standard and a list of approved devices is available from www.NSF.org. If standards do not exist for a specific product, the manufacturer must work with NSF or other American National Standards Institute (ANSI) approved agency to develop such standards.

(2) The recirculation system shall be designed to provide a minimum of four turnovers of the pool volume per day. Pools that are less than 1000 square feet at health clubs shall be required to provide eight turnovers per day.

(3) The design pattern of recirculation flow shall be 100 percent through the main drain piping and 100 percent through the perimeter overflow system or 60 percent through the skimmer system.

(a) Perimeter overflow gutters – The lip of the gutter shall be uniformly level with a maximum tolerance of one-fourth inch between the high and low areas. The bottom of the gutter shall be level or slope to the drains. The spacing between drains shall not exceed 10 feet for two inch drains or 15 feet for two and one-half inch drains, unless hydraulically justified by the design engineer. Gutters may be eliminated along pool edges for no more than fifteen feet and this shall not exceed 10% of the perimeter (at least 90% of the perimeter shall be guttered). In areas where gutters are eliminated, handholds shall be provided within nine inches of the water surface. Handhold design shall be approved by the department prior to construction. The gutter lip shall be tiled with a minimum of 2 inch tile on the pool wall, each a minimum size of one inch on all sides, except that stainless steel gutters are exempt from this requirement.

1. Either recessed type or open type gutters shall be used. Special designs can be approved provided they are within limits of sound engineering practice. Recessed type gutters shall be at least four inches deep and

four inches wide, and no part of the recessed gutter shall be visible from a position directly above the gutter sighting vertically down the edge of the deck or curb. Open type gutters shall be at least six inches deep and 12 inches wide. The back vertical wall of the gutter shall be tiled with glazed tile, each a minimum size of one inch on all sides. This tile shall be smooth and easily cleanable. The gutter shall slope downward 2 inches, plus or minus 1/4 inch, from the lip to the drains. When open type gutters are located at pool steps and the gutter is used as a step tread, the gutter slope may be reduced to 1 inch in the area of the steps, and this tread shall be tiled with slip resistant tile. The back of the gutter drains shall be located within 3/4 inch of the back vertical wall of the gutter, where the gutter is deepest and shall be flush with the surrounding area or be recessed no more than 3/8 inch.

2. All gutter systems shall discharge into a collector tank.

3. The department shall waive the requirements of tile on stainless steel gutter systems when it can be shown that the surfaces at the waterline and back of the gutter are smooth and easily cleanable.

(b) Recessed Automatic Surface Skimmers – Recessed automatic surface skimmers may be utilized when the pool water surface area is 1,000 square feet or less excluding offset stairs and swimouts and the width of the pool is not over 20 feet.

1. The recessed automatic surface skimmer piping system shall be designed to carry 60 percent of the pool total design flow rate with each skimmer carrying a minimum 30 gallons per minute. One skimmer for every 400 square feet or fraction thereof of pool water surface area shall be provided.

2. Prevailing wind direction and the pool outline shall be considered by the designer in the selection of skimmer locations and the location of skimmers shall be such that the interference of adjacent inlets and skimmers is minimized. Recessed automatic surface skimmers shall be installed so that there is no protrusion into the pool water area. The deck or curb shall provide for a handhold around the entire pool perimeter and shall not be located more than nine inches above the mid point of the opening of the skimmer.

3. Recessed automatic surface skimmers may be installed with an equalizer valve and an equalizer line when the skimmer piping system is connected directly to pump suction. If installed, the equalizer valve shall be a spring loaded vertical check valve which will not allow direct suction on the equalizer line. Float valves are prohibited. The equalizer line inlet shall be installed at least one foot below the normal pool water level and the equalizer line inlet shall be protected by an ASME/ANSI A112.19.8-2007 compliant cover/grate. The equalizer line shall be sized to handle the expected flow with a two inch minimum line size. For existing pools, within 180 days of effective date of this rule, skimmer equalizer lines shall be permanently plugged or ASME/ANSI A112.19.8-2007 compliant covers/grates shall be installed at the inlet.

4. A wall inlet fitting shall be provided directly across from each skimmer.

5. A minimum 6-inch water line tile shall be provided on all pools with automatic skimmer systems, each a minimum size of one inch on all sides. Glazed tile that is smooth and easily cleanable shall be utilized.

(4) Pumps – If the pump or suction piping is located above the water level of the pool, the pump shall be self-priming. Pumps that take suction prior to filtration shall be equipped with a hair and lint strainer. The recirculation pump shall be selected to provide the required recirculation flow against a minimum total dynamic head of 60 feet unless hydraulically justified by the design engineer. Vacuum filter systems pumps shall provide at least 50 feet of total dynamic head. Should the total dynamic head required not be appropriate for a given project, the design engineer shall provide an alternative.

(5) Filters – Filters sized to handle the required recirculation flow shall be provided.

(a) Filter capacities – The maximum filtration rate in gallons per minute per square foot of filter area shall be: fifteen (twenty if so approved utilizing the procedure stated in subsection 64E-9.007(1), F.A.C.) for high rate sand filters, three for rapid sand filters, three-hundred-seventy-five thousandths for pleated cartridge filters and two for Diatomaceous Earth (D.E.) type filters.

(b) Filter Appurtenances.

1. Pressure filter systems shall be equipped with an air relief valve, influent and effluent pressure gauges with minimum face size of two inches reading 0-60 pounds per square inch (psi), and a sight glass when a backwash line is required.

2. Vacuum filter systems shall be equipped with a vacuum gauge which has a two inch face and reads from 0-30 inches of mercury.

3. Precoat – A precoat pot or collector tank shall be provided for D.E. type systems.

(c) Filter tanks and elements – The filter area shall be determined on the basis of effective filtering surfaces with no allowance given for areas of impaired filtration, such as broad supports, folds, or portions which may bridge.

D.E. filter elements shall have a minimum one inch clear spacing between elements up to a four square foot effective area. The spacing between filter elements shall increase one-eighth inch for each additional square foot of filter area or fraction thereof above an effective filter area of four square feet. All cartridges used in public pool filters shall be permanently marked with the manufacturer's name, pore size and area in square feet of filter material. All cartridges with end caps shall have the permanent markings on one end cap. Vacuum filter tanks shall have coved intersections between the wall and the floor and the tank floor shall slope to the filter tank drain. The D.E. filter tank and elements shall be installed such that the recirculation flow draw down does not expose the elements to the atmosphere whenever only the main drain valve is open or only the surface overflow gutter system valve is open.

(6) Piping – All plastic pipe used in the recirculation system shall be imprinted with the manufacturer's name and the NSF-pw logo for potable water applications. Size, schedule, and type of pipe shall be included on the drawings.

(7) Valves – Return lines, main drain lines, and surface overflow system lines, shall each have proportioning valves.

(8) Flow Velocity – Pressure piping shall not exceed 10 feet per second, except that precoat lines with higher velocities may be used when necessary for agitation purposes. The flow velocity in suction piping shall not exceed six feet per second except that flow velocities up to 10 feet per second in filter assembly headers will be acceptable. Main drain systems and surface overflow systems which discharge to collector tanks shall be sized with a maximum flow velocity of three feet per second. The filter and vacuuming system shall have the necessary valves and piping to allow filtering to pool, vacuuming to waste, vacuuming to filter, complete drainage of the filter tank, backwashing for sand and pressure D.E. type filters and precoat recirculation for D.E. type filters.

(9) Inlets – All inlets shall be adjustable with wall type inlets being directionally adjustable and floor type inlets having a means of flow adjustment. Floor inlets shall be designed and installed such that they do not protrude above the pool floor and all inlets shall be designed and installed so as not to constitute sharp edges or protrusions hazardous to pool bathers. Floor inlets for vinyl liner and fiberglass pools, shall be smooth with no sharp edges, and shall not extend more than 3/8 inches above the pool floor. Wall inlets shall be installed a minimum of 12 inches below the normal operating water level unless precluded by the pool depth or intended for a specific acceptable purpose.

(a) Pools 30 feet in width or less, with wall inlets only shall have enough inlets such that the inlet spacing does not exceed 20 feet based on the pool water perimeter.

(b) Pools 30 feet in width or less with floor inlets only shall have a number of inlets provided such that the spacing between adjacent inlets does not exceed 20 feet and the spacing between inlets and adjacent walls does not exceed 10 feet.

(c) A combination of wall and floor inlets may be used in pools 30 feet in width or less only if requirements of paragraph (a) or (b) are fully met.

(d) Pools greater than 30 feet in width shall have either floor inlets only, or a combination of floor inlets and wall inlets. Pools with floor inlets only shall have a number of floor inlets provided such that the spacing between adjacent inlets does not exceed 20 feet and the spacing between inlets and an adjacent wall does not exceed 10 feet.

(e) Pools greater than 30 feet in width with a combination of wall and floor inlets shall have the number of wall inlets such that the maximum spacing between the wall inlets is 20 feet and floor inlets are provided for the pool water area beyond a 15 feet perpendicular distance from all walls. The number of floor inlets shall be such that the spacing between adjacent inlets does not exceed 20 feet and the distance from a floor inlet and an adjacent wall does not exceed 25 feet.

(f) The flow rate through each inlet shall not exceed 20 gpm.

(10) Main Drain Outlets – All pools shall be provided with an outlet at the deepest point.

(a) The depth at the outlet must not deviate more than three inches from the side wall depth marking unless designed and approved as such and dual depth markings are used.

(b) Outlets must be covered by a secured grating which requires the use of a tool to remove and whose open area is such that the maximum velocity of water passing through the openings does not exceed one and one-half feet per second at 100 percent of the design recirculation flow.

(c) Multiple outlets, equally spaced from the pool side walls and from each other, shall be installed in pools where the deep portion of the pool is greater than 30 feet in width.

(d) If the area is subject to high ground water, the pool shall be designed to withstand hydraulic uplift or shall be provided with hydrostatic relief devices.

(e) The main drain outlet shall be connected to a collector tank. The capacity of the collector tank shall be at least one minute of the recirculated flow unless justified by the design engineer. Vacuum filter tanks are considered collector tanks.

(f) All pools built without a main drain collector tank must be retrofitted with a properly sized and piped

collector tank as described in the collector tank definition, the first paragraph of 64E-9.005, 64E-9.007(8), and 64E-9.007(10) on or before the following dates to eliminate direct suction through the main drain.

1. For all pools, including wading pools, except spa type pools, with a main drain grate water depth of 4 feet or less, construction shall be completed on or before one year from the effective date of this rule;

for all spa type pools built before 1977, retrofit by July 1, 2010,

for all spa type pools built between 1977 and 1986, retrofit by July 1, 2011,

for all spa type pools built between 1986 and 1995, retrofit by July 1, 2012

and for all other pools, retrofit by July 1, 2013.

2. All existing public pools with direct suction main drains shall install as soon as possible, but in no case later than 180 days after the effective date of this rule, a main drain cover/grate that meets both the ASME/ANSI A112.19.8-2007 standard for drain covers/grates and the main drain cover/grate 1.5 feet per second water velocity requirement of this rule.

3. A modification permit shall be obtained prior to installation of the collector tank.

4. Pools that cannot be retrofitted by these dates shall be closed on or before these dates.

(g) Main drain covers/grates installed after the effective date of this rule shall comply with the requirements of ASME/ANSI A112.19.8-2007 and the water velocity requirement of this rule.

(11) An automatic and manual water makeup control must be provided to maintain the water level at the lip of the overflow gutter or at the mouth of the recessed automatic surface skimmers and must discharge through an air gap into a fill pipe or collector tank. Over the rim fill spouts are prohibited.

(12) Cleaning system – A portable or plumbed in vacuum cleaning system shall be provided. All vacuum pumps shall be equipped with hair and lint strainers. Recirculation or separate vacuum pumps shall not be used for vacuuming purposes when in excess of 3 horsepower. When the system is plumbed in, the vacuum fittings shall be located to allow cleaning the pool with a 50 foot maximum length of hose. Vacuum fittings shall be mounted no more than 15 inches below the water level, flush with the pool walls, and shall be provided with a spring loaded safety cover which shall be in place at all times. Bag type cleaners which operate as ejectors on potable water supply pressure must be protected by a vacuum breaker. Cleaning devices shall not be used while the pool is open to bathers.

(13) Rate of flow indicators – A rate of flow indicator, reading in gpm, shall be installed on the return line. The rate of flow indicator shall be properly sized for the design flow rate and shall be capable of measuring from one-half to at least one and one-half times the design flow rate. The clearances upstream and downstream from the rate of flow indicator shall comply with manufacturer's installation specifications.

(14) Heaters – Pool heaters shall comply with nationally recognized standards acceptable to the department and to the design engineer. Pools equipped with heaters shall have a fixed thermometer mounted in the pool recirculation line downstream from the heater outlet. Thermometers mounted on heater outlets do not meet this requirement. A sketch of any proposed heater installation including valves, thermometer, pipe sizes, and material specifications shall be submitted to the department and authorization obtained prior to installation. Piping and influent, effluent and bypass valves which allow isolation or removal of the heater from the system shall be provided. Materials used in solar and other heaters shall be non-toxic and acceptable for use with potable water. Heaters shall not prevent the attainment of the required turnover rate. Heaters shall comply with applicable heating codes. Heater replacement or addition meeting the provisions of this section does not constitute a modification.

(15) Pool waste water disposal – Pool waste water shall be discharged through an air gap; disposal shall be to sanitary sewers, storm sewers, drain fields, or by other means, in accordance with local municipal and building official requirements including obtaining all necessary permits. Each waste line shall have a unique air gap. Waste lines from different sources (e.g. pool, spa, overfill, sump pump) shall not be tied together, but may discharge into a common sump or receptacle after the air gap. Disposal of water from pools using D.E. powder shall be accomplished through separation tanks which are equipped with air bleed valves, bottom drain lines, and isolation valves, or through a settling tank with final disposal being acceptable to local authorities. D.E. separator tanks shall have a capacity as rated by the manufacturer, equal to the square footage of the filter system. All lines shall be sized to handle the expected flow. There shall not be a direct physical connection between any waste or drain line from a pool or recirculation system and any a sewer line. Waste D.E. powder shall be collected and disposed of in a manner acceptable to local authorities and solid waste collectors.

(16) Disinfection and pH adjustment shall be added to the pool recirculation flow using automatic feeders meeting the requirement of NSF/ANSI Standard 50-2007. All chemicals shall be fed into the return line after the pump, heater and filters, unless the feeder was designed by the manufacturer and approved by the NSF to feed to the collector tank or to the suction side of the pump. Feeding chlorinated isocyanurates disinfectant is prohibited in spas, wading pools and interactive water features, and these existing feeders

shall be replaced with non-isocyanurate chlorinators, or equivalent, with a pH adjustment feeder on or before June 1, 2011. Dual or multiuse feeders can be used if approved for and feeding an acceptable rate of alternate disinfectant.

(a) Gas chlorination – When gas chlorination is utilized, the chlorinator shall be capable of continuously feeding a chlorine dosage of six mg/L to the recirculated flow of the filtration system. The application point for chlorine shall be located in the return line downstream of the filter, recirculation pump, heater, and flow meter, and as far as possible from the pool.

1. Gas chlorinators shall be located in above grade rooms and in areas which are inaccessible to unauthorized persons.

a. Chlorine rooms shall have: continuous forced draft ventilation capable of a minimum of one air change per minute with an exhaust at floor level to the outside, a minimum of 30 foot candles of illumination with the switch located outside and the door shall open out and shall not be located adjacent to the filter room entrance or the pool deck. A shatter-proof gas tight inspection window shall be provided.

b. Chlorine areas shall have a roof and shall be enclosed by a chain-link type fence at least six feet high to allow ventilation and prevent vandalism.

2. A gas mask, or a self-contained breathing apparatus, approved for use in chlorine gas contaminated air, shall be provided and shall be located out of the area of possible contamination.

3. When booster pumps are used with the chlorinator, the pump shall use recirculated pool water supplied via the recirculation filtration system. The booster pump shall be electrically interlocked with the recirculation pump to prevent the feeding of chlorine when the recirculation pump is not operating.

4. A means of weighing chlorine containers shall be provided. When 150 pound cylinders are used, platform type scales shall be provided and shall be capable of weighing a minimum of two full cylinders at one time. The elevation of the scale platform shall be within two inches of the adjacent floor level, and the facilities shall be constructed to allow easy placement of full cylinders on the scales.

5. Each cylinder shall be secured at all times, with 150 pound cylinders maintained in an upright position. A protective cap shall be in place at all times when the cylinder is not connected to the chlorinator.

(b) Hypohalogenation and Electrolytic chlorine generators – The hypohalogenation type feeder and electrolytic chlorine generators shall be adjustable from zero to full range. A rate of flow indicator is required on erosion type feeders. The feeders shall be capable of continuously feeding a dosage of 6 mg/L to the minimum required turnover flow rate of the filtration systems. Solution feeders shall be capable of feeding the above dosage using a ten percent sodium hypochlorite solution, or five percent calcium hypochlorite solution, whichever disinfectant is to be utilized at this facility. To prevent the disinfectant from siphoning or feeding directly into the pool or pool piping under any type failure of the recirculation equipment, an electrical interlock with the recirculation pump shall be incorporated into the system for electrically operated feeders. A flow sensor controller can also be used to turn off the feeders when flow is not sensed. The minimum size of the solution reservoirs shall be at least 50 percent of the maximum daily capacity of the feeder. The solution reservoirs shall be marked to indicate contents.

(c) Feeders for pH adjustment – Feeders for pH adjustment shall be provided on all pools. pH adjustment feeders shall be positive displacement type, shall be adjustable from zero to full range, and shall have an electrical interlock with the circulation pump to prevent discharge when the recirculation pump is not operating. When soda ash is used for pH adjustment, the maximum concentration of soda ash solution to be fed shall not exceed one-half pound soda ash per gallon of water. Feeders for soda ash shall be capable of feeding a minimum of three gallons of the above soda ash solution per pound of gas chlorination capacity. The minimum size of the solution reservoirs shall be marked to indicate the contents.

(d) Ozone generating equipment may be used for supplemental water treatment on public swimming pools subject to the conditions of this section.

1. Ozone generating equipment electrical components and wiring shall comply with the requirements of the National Electrical Code and the manufacturer shall provide a certificate of conformance. The process equipment shall be provided with an effective means to alert the user when a component of this equipment is not operating.

2. Ozone generating equipment shall meet the NSF/ANSI Standard 50-2007.

3. The concentration of ozone in the return line to the pool shall not exceed 0.1 mg/L.

4. The injection point for ozone generating equipment shall be located in the pool return line after the filtration and heating equipment, prior to the halogen injection point, and as far as possible from the nearest pool return inlet with a minimum distance of four feet. Injection methods shall include a mixer, contact chamber, or other means of efficiently mixing the ozone with the recirculated water. The injection and mixing equipment shall not prevent the attainment of the required turnover rate of the recirculation system. Ozone generating equipment shall be equipped with a check valve between the generator and the injection point. Ozone generating equipment shall be equipped with an air flow meter and a means to control the flow. The generator shall be electrically interlocked with the recirculation pump to prevent the feeding of ozone when the recirculation pump is not operating. A flow sensor controller can also be used to turn off the feeder when flow is not sensed.

5. Ventilation requirements – Ozone generating equipment shall be installed in equipment rooms with either forced draft or cross draft ventilation. Below grade equipment rooms with ozone generators shall have forced draft ventilation and all equipment rooms with forced draft ventilation shall have the fan control switch located outside the equipment room door. The exhaust fan intake for forced draft ventilation and at least one vent grille for cross draft ventilation shall be located at floor level.

6. A self-contained breathing apparatus designed and rated by it's manufacturer for use in ozone contaminated air shall be provided when ozone generator installations are capable of exceeding the maximum pool water ozone contact concentration of 0.1 milligrams per liter (mg/L). The self-contained breathing apparatus shall be available at all times and shall be used at times when the maintenance or service personnel have determined that the equipment room ozone concentration exceeds 10 mg/L. Ozone generator installations which require the self-contained breathing apparatus shall also be provided with Draeger type detector tube equipment which is capable of detecting ozone levels of 10 mg/L and greater.

7. In lieu of the above self contained breathing apparatus an ozone detector capable of detecting 1 mg/L may be used. Said detector must be capable of stopping the production of ozone, venting the room and sounding an alarm once ozone is detected.

(e) Ionization units may be used as supplemental water treatment on public pools subject to the condition of this paragraph.

1. Ionization equipment and electrical components and wiring shall comply with the requirements of the National Electrical Code and the manufacturer shall provide a certification of conformance.

2. Ionization equipment shall meet the NSF/ANSI Standard 50-2007, Circulation System Components and Related Materials for Swimming Pools, Spas/Hot Tubs, or equivalent, shall meet UL standards and shall be electrically interlocked with recirculation pump.

(f) Ultraviolet (UV) light disinfectant equipment may be used as supplemental water treatment on public pools (and additional treatment on IWFs) subject to the conditions of this paragraph and manufacturer's specifications. UV is encouraged to be used to eliminate or reduce chlorine resistant pathogens, especially the protozoan *Cryptosporidium*.

1. UV equipment and electrical components and wiring shall comply with the requirements of the National Electrical Code and the manufacturer shall provide a certification of conformance to the department.

2. UV equipment shall meet UL standards and shall be electrically interlocked with recirculation pump(s) on all pools and with feature pump(s) on an IWF such that when the UV equipment fails to produce the required dosage as measured by an automated sensor, the feature pump(s) are disabled so the water features do not operate.

3. UV equipment shall be validated by a capable party that it delivers the required and predicted UV dose at the validated flow, lamp power and water UV transmittance conditions, and has complied with all professional practices summarized in the USEPA Ultraviolet Disinfectant Guidance Manual dated November, 2006, which is publication number EPA 815-R-06-007 available from the department at http://www.floridashealth.org/Environment/water/swim/index.html or at

http://www.epa.gov/safewater/disinfection/lt2/pdfs/guide_lt2_uvguidance.pdf.

4. UV equipment shall constantly produce a validated dosage of at least 40 mJ/cm2 (milliJoules per square centimeter) at the end of lamp life.

5. The UV equipment shall not be located in a side stream flow and shall be located to treat all water returning to the pool or water features.

(17) Water features such as waterfalls or fountains in pools may use up to 20% of the return water from the filter system, however all waters used in the feature shall not be counted toward attaining the designed turnover rate. Return piping system shall be designed and capable of handling the additional feature flow when the feature is turned off. Features that require more than 20% of the flow rate shall be supplied by an additional pump that drafts from a suitable collector tank. All water features that utilize water from the pool shall be designed to return the water to the pool. Spray features mounted in the pool deck shall be flush with the pool deck and shall be designed with the safety of the pool patron in mind.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.021, 514.03, 514.031,

514.05, 514.06 FS. History-New 10-5-93, Formerly 10D-5.136, Amended 12-27-98, 5-27-04, 5-24-09_.

64E-9.008 Supervision and Safety

(1) All owners, managers, lifeguards or swimming instructors in charge of, or working at, public swimming pools shall be responsible for the supervision and safety of the pool.

(a) Lifeguards or swimming instructors, if provided, shall be in full charge of persons using the pool and shall have authority to enforce all rules. Lifeguards and swimming instructors shall be certified in lifeguarding or swimming instruction, respectively, by the American Red Cross, the YMCA or other equivalent national aquatic training agencies which meet the established standards, objectives and standards of care provided in the American Red Cross or YMCA programs. For the purpose of this rule, the standards found in the 2007 edition of the American Red Cross Lifeguarding Instructors Manual, the 2004 edition of the American Red Cross Water Safety Instructors Manual, the On the Guard II, The YMCA Lifeguard Manual, (2001) Fourth Edition, (YMCA), The Youth and Adult Aquatic Program Manual (1999), and (YMCA) The Parent/Child and Preschool Aquatic Program Manual (1999), are hereby adopted by reference. Swimming instructors of developmentally disabled students shall also be certified in accordance with Chapter 514.072, FS.

(b) Lifeguards and swimming instructors shall also be currently certified in first aid and in adult, child and infant cardiopulmonary resuscitation through the American Red Cross, or the American Heart Association, or the National Safety Council, or the American Academy of Orthopaedic Surgeons, or by Medic First Aid International, Inc., or by American Safety and Health Institute.

(c) Swim coaches are exempted from the swimming instructor certification requirement when training advanced level swimmers for competition.

(d) Verification of equivalence, as required above, shall be the responsibility of the Division Director for Environmental Health or his designee. The department shall form an ad hoc advisory group composed of professionals in the field of aquatics. This group shall consist of five members and shall make recommendations to the department regarding the equivalence of lifeguard or swimming instructor certification programs submitted to the department under paragraph 64E-9.008(1)(a), F.A.C. Members shall be appointed for a period of 3 years with such appointments being staggered so that the terms of no more than two members expire in any one year.

(e) Lifeguard, swimming instructor, cardiopulmonary resuscitation and first aid certificates or photocopies thereof shall be maintained at the pool location and be available for inspection by department personnel at any reasonable hour.

(2) Safety Equipment – All swimming pools shall be provided with a shepherd' s hook securely attached to a one piece pole not less than 16 feet in length, and at least one 18 inch diameter lifesaving ring with sufficient rope attached to reach all parts of the pool from the pool deck. Safety equipment shall be mounted in a conspicuous place and be readily available for use. Pools greater than 50 feet in length shall have multiple units with at least one shepherd' s hook and one lifesaving ring located along each of the longer sides of the pools. Spa pools under 200 square feet of surface area, and interactive water features or wading pools with two feet or less of water depth are exempt from this requirement.

(3) Safety Lines – All pools with a slope transition shall have a safety line as required by subsubparagraph 64E-9.006(1)(c)2.b., F.A.C. The safety line shall be in place at all times unless a lifeguard or instructor is present.

(4) Pool covers and solar blankets shall only be used during times when the pool is closed. Unless the pool cover or solar blanket is secured around the entire perimeter and is designed to support a live load of an adult person, the pool area shall be inaccessible to unauthorized individuals during times of cover or blanket use.

(5) Chemical storage – Chemicals shall be stored in a cool, dry, and well ventilated area under a roof and the area shall be inaccessible to the public. Chemicals which emit corrosive fumes shall not be stored in the equipment room. Empty chemical containers shall be stored and disposed of in such a manner that they are not accessible to the public.

(6) Swimming pool slides shall be installed in accordance with manufacturer's specifications and sound engineering practice. Pools with slides designed for swimming pools are not required to satisfy those of slide plunge pools in subsection 64E-9.011(2), F.A.C., however, the need for increased turnover shall be taken into consideration by the design engineer in determining what constitutes sound engineering.

(7) Rules and regulations – Rules and regulations for bathers shall be posted in minimum 1 inch letters which must be legible from the pool deck, and shall contain the following:

1. No food or beverages in pool or on pool wet deck.

2. No glass or animals in the fenced pool area (or 50 feet from unfenced pool).

- 3. Bathing load: ____ persons.
- 4. Pool hours: ____ a.m. to ____ p.m.
- 5. Shower before entering.

Pools of 200 square feet in area or greater without an approved diving well configuration shall have "NO DIVING", in four inch letters included with the above listed pool rules.

6. For new or modified pools submitted for plan approval application on or after the effective date of this rule, their posted sign shall add: Do not swallow the pool water.

(8) Night swimming – Pools shall not be open for swimming at night unless the requirements for lighting as specified in paragraph 64E-9.006(2)(c), F.A.C., are met. Night swimming shall be considered one half hour before sunset to one half hour after sunrise.

(9) Pools with heaters shall have a maximum water temperature of 104° F.

(10) Floating and climb-on devices, objects or toys that are not a part of the approved pool design shall not be tethered in the pool or installed without engineering modification application and department approval.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.0015, 381.006, 514.021, 514.03, 514.031, 514.05, 514.06, 514.071 FS. History–New 10-5-93, Formerly 10D-5.137, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.009 Wading Pools

(1) Wading pools shall meet the requirements of Rules 64E-9.001 through 64E-9.008, F.A.C., unless otherwise indicated. Wading pools and associated piping shall not be physically connected to any other swimming pools and have no minimum width dimensions requirements.

(2) Depths – Wading pools shall have a maximum depth of 2 feet. The depth at the perimeter of the pool shall be uniform and shall not exceed 12 inches. However, where department-approved zero depth entry designs are used, this uniform depth requirement must be met only on the remainder of the pool outside the zero depth entry portion. The pool floor shall not be more than 12 inches below the deck unless steps and handrails are provided. Depth and NO DIVING markers are not required on wading pools.

(3) Recirculation – Wading pools shall have a minimum of one turnover every one hour. Lines from main drains shall discharge into a collector tank.

(a) Skimmer equalizer lines when required shall be plumbed into the main drain.

(b) The grate cover shall be sized so as not to allow the flow to exceed 1.5 feet per second (fps) when the equalizer line is operating.

(4) Inlets – Wading pools with 20 feet or less of perimeter shall have a minimum of two equally spaced adjustable inlets.

(5) Emergency drainage – All wading pools shall have drainage to waste without a cross-connection through a quick opening valve to facilitate emptying the wading pool should accidental bowel or other discharge occur.

(6) Vacuuming – Wading pools shall have no provisions for direct suction vacuuming where the vacuum port is in the pool floor or pool wall or accessible to patrons. Wading pools of less than 200 square feet are not required to have a vacuuming method provided. Wading pools 200 square feet or larger shall provide for vacuuming through the skimmer, a portable vacuum system or an alternative approved method that does not involve a direct suction port in the pool. The department recommends that all existing direct suction vacuum apparatus be removed for bather safety.

(7) Wading pool decks – When adjacent to swimming pools within 50 feet, wading pools shall be enclosed and separated from the swimming pool by a barrier or fence of a minimum of 48 inches in height with self-latching and self-closing gates. When adjacent to areas less than one foot deep of zero depth entry pools, the fence or effective barrier is required if the water edges are less than 40 feet apart. Wading pools shall have a minimum 10 foot wide deck around at least 50 percent of their perimeter with the remainder of the perimeter deck being at least four feet wide. There shall be at least 10 feet between adjacent swimming pools and wading pools.

(8) Wading pools are exempt from underwater lighting requirements but do require deck and surface lighting of 10 foot-candles if indoors or 6 foot-candles for outdoor night use. Such illumination shall be provided over the pool water surface and the pool deck surface.

(9) Automated Oxidation Reduction Potential (ORP) and pH controllers with sensing probes shall be provided to assist in maintaining proper disinfection and pH levels.

(10) Should a fecal accident occur, the requirements of 64E-9.004(14) shall be met or the pool may be drained and

both the pool and the filter system and all plumbing shall be properly disinfected.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.021 FS. History–New 10-5-93, Formerly 10D-5.138, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.010 Spa Pools

(1) Spa pools shall meet the requirements of Rules 64E-9.001 through 64E-9.008, F.A.C., unless specifically indicated otherwise.

(2) The color, pattern or finish of the pool interior shall not obscure the existence or presence of objects or surfaces within the pool.

(3) Water depths – Spa type pools shall have a minimum water depth of 2 1/2 feet and a maximum water depth of 4 feet, except that swim spa pools may have a maximum water depth of 5 feet. Depth markers and NO DIVING markers are not required on spa type pools with 200 or less square feet of water surface area.

(4) Steps and handrails – Steps or ladders shall be provided and shall be located to provide adequate entrance to and exit from the pool. The number of sets of steps or ladders required shall be on the basis of one for each 75 feet, or major fraction thereof, of pool perimeter. Step sets for spa type pools with more than 200 square feet of pool water surface area shall comply with subparagraph 64E-9.006(1)(d)3., F.A.C. Step sets for spa type pools with 200 square feet or less of pool water surface area shall comply with the following: Step treads shall have a minimum width of 10 inches for a minimum continuous tread length of 12 inches. Step riser heights shall not exceed 12 inches. Intermediate treads and risers between the top and bottom treads and risers shall be uniform in width and height, respectively. Contrasting markings on the leading edges of the submerged benches and the intersections of the treads and risers are required to be installed in accordance with subparagraph 64E-9.006(1)(d)3., F.A.C.

(a) Handrails shall be provided for all sets of steps and shall be anchored in the bottom step and in the deck. Handrails shall be located to provide maximum access to the steps and handrails shall extend 28 inches above the pool deck.

(b) Where "figure four" handrails are used, they shall be anchored in the deck and shall extend laterally to any point vertically above the bottom step. Handrails shall be located to provide maximum access to the steps and handrails shall extend 28 inches above the pool deck.

(5) Decks – Decks shall have a minimum four foot wide unobstructed width around the entire pool perimeter except that pools of less than 120 square feet of pool water surface area shall have a minimum four foot wide unobstructed continuous deck around a minimum of 50 percent of the pool perimeter. Decks less than four feet wide shall have barriers to prevent their use. Decks shall not be more than 10 inches below the top of the pool. For pools of 120 square feet or greater, ten percent of the deck along the pool perimeter may be obstructed.

(6) Therapy or jet systems -

(a) The return lines of spa type therapy or jet systems shall be independent of the recirculation-filtration and heating systems.

(b) Therapy or jet pumps shall take suction from the collector tank. Collector tank sizing shall take this additional gallonage into consideration.

(c) Cold plunge spas do not require a therapy or jet system, but do require the installation of a chiller.

(d) Heated systems shall incorporate a 15 minute patron activated timer on the therapy pump circuit.

(7) Filtration system inlets – Spa type pools with less than 20 feet of perimeter shall have a minimum of two equally spaced adjustable inlets.

(8) Filtration recirculation – Spa type pools shall have a minimum of one turnover every 30 minutes. The piping, fittings, and hydraulic requirements shall be in accordance with Rule 64E-9.007, F.A.C. All recirculation lines to and from the pool shall be individually valved with proportional flow type valves in order to control the recirculation flow.

(9) Vacuuming – Spa type pools of over 200 square feet of pool water surface area shall have provisions for vacuuming.

(10) Oils, body lotions, and minerals – Oils, body lotions, and minerals or materials not associated with chemicals used for water chemistry balance, algae control, and disinfection of the water are prohibited in the spa pool.

(11) Bench seat edges shall be marked in accordance with subparagraph 64E-9.006(1)(e)2., F.A.C. When spa pools are part of a conventional swimming pool, the spa pool area shall be offset from the main pool area with the same water depth as the main pool area. The spa pool shall meet all the spa pool requirements of this chapter, and the deck area at the spa shall be protected by connected 30 inch high stanchions or other impediment acceptable to the department. The deck perimeter at the offset spa area shall not exceed 15 percent of the entire swimming pool perimeter.

(12) Portable and wooden type spa pools are prohibited.

(13) Automated Controllers – Automated Oxidation Reduction Potential (ORP) and pH controllers with sensing probes shall be provided on spa pools to assist in maintaining proper disinfection and pH levels.

(14) In addition to the requirements of subsection 64E-9.008(7), F.A.C., spa pool signs shall include the following:

(a) Maximum water temperature 104° F.

(b) Children under twelve must have adult supervision.

(c) Pregnant women, small children, people with health problems and people using alcohol, narcotics or other drugs that cause drowsiness should not use spa pools without first consulting a doctor.

(d) Maximum use 15 minutes.

(15) A clock shall be visible from the spa pool to assist the patron in meeting the requirement of paragraph 64E-9.010(14)(d), F.A.C., above.

(16) If a spa is equipped with an emergency cut-off or kill switch, provisions for a minimum 80 decibel audible alarm near the spa to sound continuously until deactivated when such device is triggered shall be incorporated. This is to alert pool patrons and operators of a potential public health situation or to indicate that the spa filtration and treatment system may be off. The following additional rule sign shall be visible by the spa which reads "ALARM INDICATES SPA PUMPS OFF. DO NOT USE SPA WHEN ALARM SOUNDS UNTIL ADVISED OTHERWISE." Where emergency cut-off switches are provided on existing or new spa pools, the alarm and signage specified in 64E-9.010(16), F.A.C., above shall be provided within 180 days of effective date of this rule.

(17) Should a fecal accident occur, the requirements of 64E-9.004(14) shall be met or the pool may be drained and both the pool and the filter system and all plumbing shall be properly disinfected.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 386.01, 386.02, 386.03, 386.041, 386.051, 514.011, 514.021, 514.03, 514.031, 514.05, 514.06 FS. History–New 10-5-93, Formerly 10D-5.139, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.011 Water Recreation Attractions and Specialized Pools

(1) General – Water recreation attraction projects shall be designed and constructed within the limits of sound engineering practice. Design engineers may consult with the department in reference to concepts of design variations and to areas where potential problems may exist. In addition to the requirements of this section, compliance is required with Rules 64E-9.001 through 64E-9.008 and 64E-9.017, F.A.C., of this chapter depending upon the pool design and function. Additionally, all pools listed in this section shall have a two hour turnover rate unless otherwise noted. A lifeguard and/or safety plan shall be submitted with the application for construction of the pools listed below in sections 64E-9.011(2), (3) when climbable structures are planned.

(2) Water slide plunge pools.

(a) Water slide plunge pool – Plunge pools shall be constructed of concrete or other structurally rigid impervious materials with a non-toxic, smooth and slip resistant finish. The plunge pool design shall be as follows:

1. Plunge pool water depth – The minimum plunge pool operating water depth at the slide flume terminus shall be three feet. This depth shall be maintained for a minimum distance of 10 feet in front of the slide terminus from which point the plunge pool floor may have a constant upward slope to allow a minimum water depth of two feet at the base of the steps. The floor slope shall not exceed one foot in 10 feet. The plunge pool water depth shall be commensurate with safety and the ease of exit from the plunge pool.

2. Plunge pool dimension – The plunge pool dimension between any slide flume exit or terminus and the opposite side of the plunge pool shall be a minimum of 20 feet excluding steps.

3. Slide flume terminus.

a. The slide flume terminus shall be designed by the design engineer who can demonstrate to the department's satisfaction that riders will be adequately slowed prior to discharge so as to prevent injury or harm to the rider upon impact with the plunge pool water. The slide terminus shall be flush with the pool wall and located at or below the pool water level.

b. The minimum distance between any plunge pool side wall and the outer edge of any slide terminus shall be five feet. The minimum distance between adjacent slide flumes shall be six feet.

c. A minimum length of slide flume of 10 feet shall be perpendicular to the plunge pool wall at the exit

end of the flumes.

4. Plunge pool main drains – The plunge pool shall have a minimum of one main drain with separate piping and valve to the filtration system collector tank. The velocity through the openings of the main drain grate shall not exceed one and one-half feet per second at the design flow rate of the recirculation pump. The main drain piping shall be sized to handle 100 percent of the design flow rate of the filtration system with a maximum flow velocity of three feet per second.

5. Plunge pool floor slope – The plunge pool floor shall slope to the main drains and the slope shall not exceed one foot in 10 feet.

6. Plunge pool decks.

a. Width - The minimum width of plunge pool decks along the exit side shall be 10 feet.

b. Slopes – All plunge pool decks shall slope to the plunge pool or pump reservoir or to deck drains which discharge to waste, or other acceptable means. All slopes shall be between two and four percent grade.

(b) Run out lanes -

1. Run out lanes may be utilized in lieu of a plunge pool system provided they are constructed to the slide manufacturers specifications and are approved by the design engineer of record.

2. Five foot wide walkways shall be provided adjacent to run out lanes.

3. Minimum water level indicator markings shall be provided on both sides of the run out trough to insure adequate water for the safe slowing of pool patrons.

4. Water park personnel shall be provided at the top of the slides and at the run out.

(c) Pump reservoirs – Pump reservoirs shall be made of concrete or other impervious material with a smooth slip resistant finish. Pump reservoirs shall be for the slide pump intakes, but where properly sized may also be used as a collector tank for the filter system. Pump reservoir designs shall be as follows:

1. Pump reservoir volume – The minimum reservoir volume shall be equal to three minutes of the combined flow rate in gpm of all filter and slide pumps.

2. Pump reservoir security – Pump reservoirs shall be accessible only to authorized individuals.

3. Pump reservoir maintenance accessibility – Access decks shall be provided for the reservoir such that all areas are accessible for vacuuming, skimming, and maintenance. The decks shall have a minimum width of three feet and shall have a minimum slope of three inches in 10 feet away from the reservoir.

4. Pump reservoir slide pump intakes – The slide pump intakes shall be located in the pump reservoir and shall be designed to allow cleaning without danger of operator entrapment.

5. Pump reservoir main drains – The pump reservoir shall have a minimum of one main drain with separate piping and valve to the filtration system collector tank and the velocity through the openings of the main drain grates shall not exceed one and one-half feet per second at the design flow rate of the filtration system pump. The main drain piping shall be sized to handle 100 percent of design flow rate of the filtration system pump with a maximum flow velocity of three feet per second.

6. The pump reservoir shall be fed by main drains within the plunge pool itself (either in the floor or side wall). They shall have the maximum flow velocity of 1.5 feet per second through the main drain grating and 3 feet per second through piping to the reservoir.

(d) Slide pump check valves - Slide pumps shall have check valves on all discharge lines.

(e) Perimeter overflow gutters or skimmers – Plunge pools and pump reservoirs shall have perimeter overflow gutter system or skimmer which shall be an integral part of the filtration system.

1. Perimeter overflow gutter systems – Perimeter overflow gutter systems shall meet the requirements of paragraph 64E-9.007(3)(a), F.A.C., except that gutters are not required directly under slide flumes or along the weirs which separate plunge pools and pump reservoirs.

2. Surface skimmers – Surface skimmers may be used in lieu of perimeter overflow gutters and shall be appropriately spaced and located according to the structural design. Unless an overflow gutter system is used, surface skimmers shall be provided in the plunge pool and in the pump reservoir and the skimmer system shall be designed to carry 60 percent of the filtration system design flow rate with each skimmer carrying a minimum 30 gallons per minute. All surface skimmers shall meet the requirements for NSF commercial approval as set forth in NSF/ANSI Standard 50-2007, Circulation System Components and Related Materials for Swimming Pools, Spas/Hot Tubs, which is incorporated by reference in these rules, including an equalizer valve in the skimmer and an equalizer line to the pool wall on systems with direct connection to pump suction.

(f) Water slide recirculation – filtration equipment.

1. Recirculation rate - The recirculation-filtration system of water slides shall recirculate and filter a

water volume equal to the total water volume of the facility in a period of two hours or less.

2. Filter areas – Minimum filter area requirements shall be twice the filter areas specified for the recirculation rates stipulated in paragraph 64E-9.007(5)(a), F.A.C. The filtration system shall be capable of returning the pool water turbidity to five-tenths NTU within eight hours or less after peak bather load.

3. Hair and lint strainer – Any filtration system pump which takes suction directly from the plunge pool and reservoir shall have a minimum eight inch diameter hair and lint strainer on the suction side of the pump.

(g) Disinfection – The disinfection equipment shall be capable of feeding 12 mg/L of halogen to the continuous recirculation flow of the filtration system.

(h) Slide design and construction is the responsibility of a professional engineer licensed in Florida and the applicant.

(j) A lockable gate shall be provided at the stair or ladder entrance to the slide.

(j) Upon construction completion, a professional engineer licensed in Florida shall certify that the slide was constructed in accordance with the manufacturer's specifications and is structurally sound.

(3) Water activity pools.

(a) Water activity pools shall be designed and constructed within the limits of sound engineering practice. The design engineer may consult with the department prior to preparation and submission of engineering plans and specifications for water activity pools.

(b) Water activity pools shall be constructed of concrete or other structurally rigid impervious materials with a non-toxic, smooth and slip resistant finish. These pools shall be of such shape, length, width, and design as to be operated and maintained in a safe and sanitary manner.

(c) The recirculation-filtration system of water activity pools shall achieve a minimum of one turnover every two hours for water activity pools over two feet deep, and in one hour for these pools that are two feet deep or less.

(d) Those portions of the activity pool where the water depth will not allow for the proper installation of underwater lighting, shall be provided with six foot candles of lighting on the deck and the water surface.

(e) Fence requirements shall be in accordance with 64E-9.009(7), F.A.C.

(f) Play features with an overhead clearance of less than four feet shall be blocked or barricaded to preclude children becoming entrapped.

(g) In addition to the requirements of subsection 64E-9.008(7), F.A.C., all water activity pool signs shall have the following added in one inch letters within one year of the effective date of this rule.

Do not swallow the pool water, it is recirculated.

Do not use pool if you are ill with diarrhea.

(4) Wave pools.

(a) Wave pools shall be designed and constructed within the limits of sound engineering practice. The design engineer may consult with the department prior to preparation and submission of engineering plans and specifications for wave pools.

(b) Wave pools shall be constructed of concrete or other impervious materials with a smooth slip resistant finish. These pools shall be of such shape and design as to be operated and maintained in a safe and sanitary manner.

(c) The recirculation-filtration system of wave pools shall be capable of a minimum of one turnover every three hours.

(d) Floors shall be sloped in accordance with the manufacturer's or design engineer's specifications, however, they shall not exceed the slope limits of 64E-9.006(1)(c)2.a., F.A.C.

(5) River Rides.

(a) River Rides shall be constructed within the limits of sound engineering practice. The design engineer may consult with the department prior to preparation and submission of engineering plans and specifications for River Rides.

(b) River Rides shall be constructed on concrete or other impervious materials with a non-toxic, smooth and slip resistant finish. These rides shall be of such shape and design as to be operated in a safe and sanitary manner.

(c) The recirculation-filtration system of the River Ride shall be capable of a minimum of one volume turnover every three hours.

(d) The maximum water depth of the River Ride shall not exceed three feet unless justified to the department's satisfaction by the design engineer.

(e) Decking shall be provided at the entrance and exit points as necessary to provide safe patron access but shall not be smaller than 10 feet in width and length. Additional decking along the ride course is not required except that decking shall be required at lifeguard locations and emergency exit points.

(f) Access and exit shall be provided at the start and end of the ride, and additional exit locations shall be located along the ride course as necessary to provide for the safety of the patrons.

(g) Propulsion jets shall be installed in the walls of the river ride. In the alternative, propulsion jets may be installed in the floor if they are covered by a grate that will inhibit entrapment or injury of the pool patrons' feet or limbs.

(6) Zero Depth Entry Pools.

(a) Zero depth entry pools shall have a continuous floor slope from the water edge to the deep end.

(b) The deck level perimeter overflow system with grate shall be provided at the waters edge across the entire zero depth portion of the pool.

(c) The pool deck may slope a maximum of 1 in 12 toward the pool for no more than 5 seven feet, as measured from the overflow system grate outward. Beyond this area the deck shall slope away from the pool in accordance with subparagraph 64E-9.006(2)(a)1, F.A.C.

(d) No-Entry, Shallow Water signs shall be provided along the pool wall edge where the water depth is less than 3 feet deep. No-entry signs shall be slip-resistant tile, shall have 4 inch high letters, shall be located within 2 feet of the pool edge, shall be spaced no more than 15 feet apart and shall be recessed flush with the surrounding area.

(e) Additional inlets shall be provided in areas of less than 18 inches deep. The numbers and location shall be such as to double the flow rate into this area.

(f) The recirculation-filtration system shall be of a minimum of one turnover every two hours in the area of the pool that is three feet deep or less. In the remainder of the pool where the depth is greater than three feet, the system shall have a maximum six hour turnover rate. The design plans submitted by the applicant shall provide the volume of water in the pool area of three feet depth and less, the volume of water in the pool area greater than three feet in depth, and the total volume in the pool for determination of minimum circulation flow. The volume calculations shall provide verification that the correct volume of water is used to determine the minimum flow at the two hour and the six hour flow requirements.

(g) Those portions of the zero depth entry pool, where the water depth will not allow for the proper installation of underwater lighting, shall be provided with 6 foot candles of lighting on the deck and the water.

(h) Play structures in a zero depth entry area (in depth 0-3 feet) may be within 15 feet of the pool walls, but shall comply with sound engineering requirements for the safety of pool patrons.

(7) Special Purpose Pools.

(a) General – Special purpose pool projects may deviate from the requirements of other sections of these rules provided the design and construction are within the limits of sound engineering practice. Only those deviations necessary to accommodate the special usage shall be allowed and all other aspects of the pool shall comply with the requirements of this section and with Rules 64E-9.001 through 64E-9.008, F.A.C. The design engineer may consult with the department prior to preparation and submission of engineering plans for special purpose pools.

(b) A special purpose pool may incorporate ledges which do not overhang into the pool.

(c) The operating permit shall state the purpose for which the pool is to be used.

(8) Interactive Water Features. (IWFs)

(a) Waters discharged from all fountain or spray features shall not pond on the feature floor but shall flow by gravity through a main drain fitting to a collection system which discharges to a collector tank. The minimum size of the collector tank shall be equal to the volume of 3 minutes of the combined flow of all feature pumps and the filter pump. Adequate access shall be provided to the collector tank. Stairs or a ladder shall be provided as needed to ensure safe entry into the tank.

(b) An automatic skimmer system shall be provided in the collector tank. A variable height skimmer may be used or a custom surface skimmer device may be substituted if deemed appropriate by both the design engineer and the department.

(c) Chemical feeders shall be in accordance with Rule 64E-9.007, F.A.C., except that the disinfection feeder shall be capable of feeding 12 mg/L of free chlorine to the filter return piping (based upon a hypothetical 30 minute turnover of the contained volume within the system). Automated Oxidation Reduction Potential (ORP) and pH controllers with sensing probes shall be provided to assist in maintaining proper disinfection and pH levels.

(d) If night operation is proposed, 6 foot candles of light shall be provided on the pool deck and the water feature area. Lighting that may be exposed to the feature pool water shall not exceed 15 volts, shall be installed in accordance with manufacturer's specifications and be approved for such use by UL or NSF.

(e) All electrical work shall comply with the National Electrical Code Edition that is incorporated by reference.

(f) Hydraulics.

1. The filter system shall filter and chemically treat all water that is returned to the spray features. The filter system shall draft from the collector tank and return filtered and treated water directly to the spray features. Excess water not required by the spray features shall be returned to the collector tank.

2. Alternatively, the contained volume of the system may be filtered and chemically treated based upon a 30 minute turnover of the contained volume with 100% returned to the collector tank by manifold piping. If this alternative is chosen, all water returned to the spray feature(s) must also be treated with an Ultraviolet (UV) light disinfection equipment to accomplish protozoan destruction in accordance with sound engineering and the requirements at 64E-9.007(16)(f). This alternative must have the ability to feed 6 mg/L free chlorine to the feature water as it is returned to the spray feature. The UV disinfection equipment shall be electrically interconnected such that whenever it fails to produce the required UV dosage, the water spray features pump(s) and flow will be immediately stopped.

3. An automatic water level controller shall be provided.

4. The flow rate through the feature nozzles of the water features shall be such as not to harm the patrons and shall not exceed 20 feet per second unless justified by the design engineer and by the fountain system manufacturer.

5. An overfill waste line with air gap shall be provided.

6. A means of vacuuming and completely draining the tank(s) shall be provided.

7. Where the filter system described in 64E-9.011(8)(f)1. is utilized, a second filter system and disinfection system shall be provided to treat the water in the collector tank when the feature/filter pump is not in operation. Said system shall be capable of filtering the total volume of water in the collector tank in 30 minutes and the disinfection system shall be capable of providing 12 mg/L of disinfectant to this flow rate.

(g) IWFs shall be fenced in the same fashion as wading pools as noted in section 64E-9.009(7), F.A.C. Where the IWF is at least 50 feet from all other pools and is not designed to have any standing water, fencing requirements should be carefully considered by the applicant to control usage, but are not required by rule.

(h) A minimum four foot wide wet deck area shall be provided around all IWFs. The wet deck shall meet the requirements of subparagraph 64E-9.006(2)(a)1., however, up to 50% of the perimeter may be obstructed.

(i) IWFs shall be constructed of concrete or other impervious and structurally rigid material.

(j) In addition to the requirements of subsection 64E-9.008(7), F.A.C., all IWF pool rule signs shall have the following added in one inch letters within one year of the effective date of this rule.

Do not swallow the fountain water, it is recirculated.

Do not use fountain if you are ill with diarrhea.

(k) Floor slopes of an IWF shall be a maximum one foot vertical in ten feet horizontal and a minimum of one foot vertical in fifty feet horizontal.

(9) Water Theme Parks: Shall meet all other aspects of these rules for the features provided.

(a) Rules and regulations for water theme parks shall be posted in minimum 1-inch letters at each entrance to the park and shall contain the following:

1. No food, drink, glass, or animals in the pool or on the pool decks.

2. Park operating hours _____A.M. to ____P.M.

3. Shower before entering

4. Do not swallow the pool water

(b) Showers shall be provided at or near the entrance (queue line) to a water recreation attraction.

(c) Water theme parks are exempt from the fencing requirements of subsection 64E-9.006(2)(h), F.A.C., except that pools designed for small children shall be fenced when located within 50 feet of a pool with water depths of 3 feet or more.

(d) Sanitary Facilities within a water theme park shall be as near to the water recreation attractions as prudent to ensure patron use, but not over 200 feet walking distance from any exit of a water attraction.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.021, 514.03, 514.031, 514.05, 514.06 FS. History–New 10-5-93, Formerly 10D-5.140, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.013 Bathing Places

(1) General – Approval for the development of a public bathing place and a permit to operate a public bathing place shall be obtained from the department.

(2) Development – The following shall be submitted to the department for consideration towards the development of a public bathing place:

(a) Six sets of site plans, prepared by a professional engineer or professional surveyor or mapper which detail the location, contours of the shoreline and bottom, appurtenances such as sanitary facilities, nearby boat docks/mooring facilities, diving or slide facilities, and pertinent details from the sanitary survey. Said professional engineer(s) and surveyors and mappers shall be licensed in the state of Florida under the provision of Chapter 471 or 472, F.S., and shall fulfill the requirements of Section 471.025 or 472.025, F.S.

(b) A sanitary survey identifying potential sources of contamination as exemplified by streams, unsewered residential areas, water and wastewater treatment plants, sewage outfalls, storm drain outfalls, industrial drainage and waste outfalls, agricultural drainage, sanitary landfills, open dumps, animal enclosures, wildlife populations, and potential high erosion areas. The survey shall include consideration of present or possible future pollution of the bathing water from the above potential sources of contamination and from other forms of pollution including bottom deposits, turbidity of water, decaying vegetation, surface runoff, and the anticipated bather load. The survey shall establish that the bathing water has a flow through of a minimum of 500 gallons per anticipated bather per 24 hours, unless the water surface area of the body of water is two acres or more. The bathing load in lakes shall be based on 100 sq. ft. per bather, and only those portions of the lake within the bathing area shall be considered as the basis of the bathing load. Water currents shall not exceed three feet per second. A written report of the sanitary survey shall be submitted to the department and shall include a presentation and evaluation of the findings and a recommendation relative to the development and permitting of the bathing place.

(c) A bacteriological survey shall be submitted to the department and the fecal coliform, *E. coli*, or enterococci densities indicated by this survey shall not exceed the standards of subsection 64E-9.013(4), F.A.C. The survey shall consist of a minimum of three bacteriological samples collected from the proposed bathing area daily for the first three days of each week for three consecutive weeks. Either MPN or MF counts may be utilized. Should the MF method results differ significantly from the MPN method results, the MPN results shall prevail. The bacteriological survey results shall be reviewed in light of the sanitary survey.

(d) Fees as per Rule 64E-9.015, F.A.C.

(e) A legal survey of the property by a registered land surveyor shall be provided.

(f) A water clarity measurement by Secchi disk reading in feet using an 8 inch diameter black and white Secchi disk. Where water clarity does not achieve four feet depth for a period of at least 5 days during the period of operation due to natural water color, the department will consider approval of the bathing area with submittal of a satisfactory lifeguard plan, patron notification plan and materials, swim zone depth demarcation for children and beginners, and other special conditions that would apply to the individual site.

(g) A lifeguard and/or safety plan shall be submitted with the application for development of all new bathing areas.

(3) Operation.

(a) The following must be submitted prior to operation:

1. Six operating permit applications, DH 917.

2. Fees as per Rule 64E-9.015, F.A.C.

(b) Operational water quality – The water shall be free of chemical and physical substances known or suspected of being capable of creating toxic reactions or skin or membrane irritations. Algae and aquatic vegetation shall be controlled so that no hazard to bathers results.

(c) Bacteriological samples shall be collected monthly. A set of two samples shall be collected for every 200 feet of shoreline, the samples shall be taken a foot below the surface in three feet of water and at least 25 feet apart. The samples shall be analyzed by a DOH certified laboratory using EPA approved methods for ambient water and the results submitted to the department within 10 days after the end of the month. Should the test results of these samples exceed the standards in 64E-9.013(4) below, the county health department shall be notified within 24 hours of receipt from the lab, and re-sampling by the permit holder shall be required within 24 hours. All sampling results shall be submitted to the county health department. If 24 hour resampling is not possible for any reason, then the bathing place shall be closed immediately to swimming based upon these initial results during the time period waiting for re-sampling results. If the 24 hour confirmation samples reveal an exceedance of the standards, the bathing place shall be closed immediately to swimming until additional testing reveals the water meets single sample standards again. If a pollution source is identified, that source shall be eliminated before reopening the bathing area.

(d) Inspections – county health departments shall perform two inspections per year which shall include:

1. A site inspection in light of the original sanitary survey, changed natural conditions, changed use conditions, and originally permitted facilities.

2. A bacteriological test consisting of the normal monthly sampling requirement. The fecal coliform, *E. coli* or enterococci density must not exceed the single sample standards of subsection 64E-9.013(4), F.A.C.

3. A water clarity test shall be performed wherein an 8" black and white secchi disk shall be visible to a minimum depth of four feet.

4. The bathing place shall be temporarily closed or swimming prohibited, as appropriate, by the owner or the department if inspection reveals water clarity violations, unsafe bacterial test results, or immediate hazards to health or safety such as, but not limited to sewage in water, broken glass, dangerous wildlife, hazardous structural or electrical conditions, toxic algal blooms, or other serious disease agents present.

5. The bathing load shall be calculated on one bather per 25 square feet of surface area in areas of less than four feet of depth and one bather per 75 square feet of surface area where the water depth exceeds four feet,

(e) Trash and garbage receptacles shall be provided and said trash disposed of at least weekly.

(f) Muck or silt shall not be present from the shoreline to a depth of five feet and aquatic vegetation shall be controlled.

(g) Site specific signage shall be provided. The bathing load shall be posted and due consideration shall be given to safety guidelines such as steep slope, diving areas, deep water, underwater obstruction, dangerous wildlife, or lifeguard not on duty. Additional signage shall be provided if the bathing area is longer than 300 feet.

(h) Restrooms, platforms, diving boards, docks, beaches and walkways shall be kept clean and in good repair. Diving areas shall be readily identified, and shall have adequate water depth for safe diving based on the depth requirements of the FINA standards previously adopted herein. Shallow areas shall not be utilized for diving and shall be so marked.

(i) Glass items and domestic animals are prohibited in the bathing area and on the adjacent beach area.

(j) Sanitary facilities shall be provided and shall be as near to the bathing area as prudent to ensure patron use.

1. Women's restrooms shall have a fixture set including a water closet and a lavatory.

2. Men's restrooms shall have a fixture set including a urinal, a water closet and a lavatory.

3. Additional restroom fixture shall be provided based on stated usage. A second water closet, urinal and lavatory shall be provided in the men's restroom if the stated usage exceeds 50 patrons, but is less than 150 patrons. Another urinal, water closet and lavatory shall be provided for each additional 100 patrons. The number of water closets in the women's restroom shall be based on a three to two ratio with three water closets being provided in the women's restroom for every two fixtures in the men's restroom. For this purpose of establishing the men's restroom shall be included. The number of lavatories in the women's restroom shall match the number in the men's restroom.

4. Restroom floors shall be impervious, slip resistant and slope to floor drains.

(4) Bacteriological Standards – Either fecal coliform, *E. coli, or* enterococci bacteria shall be tested for, at the option of the permit holder. All samples tested will be considered to determine compliance, unless found to be invalid by the certified lab or county health department. The enterococci density shall not exceed an average of 33 colony forming units (CFU) per 100 mL of water, nor exceed 61 per 100 mL of water in any single sample; or the *E. coli* density shall not exceed an average of 126 CFU per 100 mL of water, nor exceed 235 CFU 800 per 100 mL of water in any single sample; or the fecal coliform shall not exceed an average of 200 CFU per 100 mL of water, nor 400 per 100 mL of water in 10 percent of the samples, nor 800 CFU per 100 mL of water in a single sample. This average shall be expressed as geometric means using at least 5 samples per 30 day period.

Rulemaking Authority 381.006, 514.021 FS. Law Implemented 381.006, 514.021, 514.03, 514.031, 514.04, 514.05, 514.06 FS. History–New 10-5-93, Formerly 10D-5.142, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.015 Fee Schedule

(1) Plan review:

(a) Original construction -

1. Pools of 25,000 gallons or less - \$350.00

- 2. Pools greater than 25,000 gallons \$500.00
- (b) Modifications of Approved Construction Plans \$150.00
- (c) Modification of existing pools \$150.00
- (d) Original development of bathing places \$275.00
- (e) Modification of existing bathing places \$100.00
- (2) Authorization and Operating Permit Issuance for Swimming Pools and Bathing Places
- (a) Initial Operating Permit \$150.00

(b) Operating Permits as indicated below:

(c) Original Operating Permit – Full annual renewal fee if the authorization was issued from July 1st to December 31st; one half the annual fee if the authorization was issued from January 1st to June 30th.

(d) Annual renewal of operating permits, use form DH4063:

1. Pools greater than 25,000 gallons and bathing places - \$250.00

2. Pools of 25,000 gallons or less – \$125.00

3. Exempted condominiums/ cooperatives with over 32 units - \$50.00

4. Non-routine inspection (no charge for first reinspection) - \$40.00

(3) All fees collected pursuant to this subsection shall be deposited in the Public Swimming Pool and Bathing Place Trust Fund under a unique revenue code within the individual county public health fund to be used to meet the cost of carrying out that portion of the Public Swimming Pool and Bathing Place Program described in this chapter. Ten percent of each fee collected by the county public health unit pursuant to Rule 64E-9.015, F.A.C., shall be transferred to a special account set up by the department's State Health Office to offset the headquarters' cost of providing technical, monitoring, training, standardization, quality assurance and administrative assistance for this program.

(4) Fee payment is not required for a replacement copy of an operating permit or reissuance of an operating permit due to change of ownership or name.

(5) Variances- Review of application for variance- \$300.00

Rulemaking_Authority 381.006, 514.021, 514.033 FS. Law Implemented 514.021, 514.03, 514.031, 514.033 FS. History–New 10-5-93, Formerly 10D-5.144, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.016 Variances

A variance from requirements of these rules may be requested by the pool owner or their representative to relieve or prevent hardship only in cases involving deviations from the rule, when it is shown that the hardship was not caused intentionally by the action of the applicant, where no reasonable alternative exists and the health and safety of the pool patrons is not at risk. Application for variance shall be submitted through the county health department utilizing DOH Form 4080. Each application can be accompanied by supportive materials such as drawings, pictures or manufacturers specifications. Applications must be received at least 30 days prior to the scheduled meeting of the Governor's Swimming Pool Advisory Board, which normally meets on the second Wednesday of each odd-numbered month.

Rulemaking Authority 381.006, 514.0115, 514.021 FS. Law Implemented 514.0115, 514.021, 514.028, 514.051, 514.06 FS. History–New 10-5-93, Formerly 10D-5.145, Amended 12-27-98, 5-24-09.

64E-9.017 Enforcement

Any public pool can be immediately posted closed by the department as not being in compliance with Chapter 64E-9, F.A.C., whenever any of the following conditions occur:

(1)(a) The disinfectant level is below the minimum or above the maximum that is prescribed in subparagraph 64E-9.004(1)(d)2., F.A.C.

(b) The pH of the pool water is below 7.2 or above 7.8.

(c) The clarity of the pool water is such that the main drain grate is not readily visible from the pool deck.

(d) The recirculation system or disinfection feeding equipment is missing or not functioning.

(e) A main drain grate is missing, unsecured, improperly secured, damaged, or does not meet the requirements of 64E-9.007(10)(f)2. by the time allowed.

(f) Operation without a valid permit.

(g) Direct suction exists on the main drain or other outlets, except vacuum fittings, automatic surface skimmer(s), and their equalizer grates provided the flow velocity through the grate does not exceed 1.5 feet per second, or the corrective actions specified in 64E-9.007(3)(b) and (10)(f) are not completed by dates specified.

(h) Any other conditions which endangers the health, safety, or welfare of persons using the pool, which may include, but is not limited to: a drowning hazard, broken glass, sharp edged or broken tile or metal, fecal accident(s), electrical code violation, or severe biological growth. The division or department may attach a sign that states "Pool Closed. This pool is not in compliance with Chapter 64E-9, F.A.C., and may endanger the health, safety or welfare of persons using this facility". With the department's permission, the pool operator may remove signs from the pool area immediately following correction of the cited

deficiencies provided the county health department is notified of this action.

(2) Correction of Unauthorized Modifications

(a) When it is discovered that a pool has been modified from the department approved plans and application, corrective construction and replacement shall be allowed to occur to bring the pool into compliance with the plans and applications as approved without the requirement for a modification permit, unless any of the following exist:

1. Critical conditions identified in 64E-9.017(1)(d) and (g) above are discovered.

2. The original approved plans and application are not available for verification.

3. The extent of the unauthorized modification cannot be readily determined by the department or the design engineer.

4. The corrective construction or replacement will place the pool in violation of current pool construction rules.

5. The construction requires concrete work or placement of underground pipes.

6. Other unsanitary or unsafe conditions apparent to the department or the design engineer.

(b) Whenever any of the conditions numbered 1 through 6 above exist, the owner shall make application to the department with form DH 914 pursuant to 64E-9.005(1) for a modification permit to authorize any construction required to restore the condition of the pool to an approved or original condition.

Rulemaking Authority 381.006, 514.021, 514.05 FS. Law Implemented 381.006, 514.021, 514.04, 514.05, 514.06 FS. History–New 10-5-93, Formerly 10D-5.146, Amended 12-27-98, 5-27-04, 5-24-09.

64E-9.018 Public Pool Service Technician Certification

An individual who services a public pool by maintaining the cleanliness, water quality and chemical balance of public pools shall be certified. To be certified an individual must demonstrate knowledge of public pools. Examples of such knowledge include: pool cleaning, general pool maintenance, make-up water supply, bacteriological, chemical and physical quality of water and water purification, testing, treatment, and disinfection procedures. To ensure that the pool technicians are knowledgeable, said technician shall attend a training course of national recognition that is approved by the department of at least 16 hours in length and shall pass a test acceptable to the department. Certification is conferred upon an individual and is nontransferable. Certification does not imply any licensure and specifically not that of contractor as regulated by the Department of Business and Professional Regulation under Section 489.105(3)(j), (k), or (l), F.S. A certified pool technician may not affect the structural integrity of the pool or equipment, and shall not delegate work to others, including employees, that are not themselves certified under this section, or otherwise exempt from this provision per Chapter 514, F.S.

(1) Training shall include the following study topics for the hours indicated:

(a) Swimming pool calculations 1 hour;

- (b) Filter type and filtration circulation 4 hours;
- (c) Water chemistry balancing & testing 5 hours;
- (d) Spas and warm water pools 1 hour;
- (e) Pool and spa maintenance 2 hours;
- (f) Operational and safety requirements 2 hours; and
- (g) State health code Chapter 64E-9, F.A.C., 1 hour.

(2) Course materials must be provided that cover the required topics in detail. The course approval shall be contingent upon their meeting the items listed in subsection (1) above and the subjects listed in Section 514.075, F.S. The test approval shall be contingent upon all of the questions being related to the subject areas listed in subsection (1) above and the subjects listed in Section 514.075, F.S., with at least 10% of the questions from the subject areas in paragraphs (1)(a) through (f) above, and the remaining 40% covering any of the seven pool subject areas listed in rule or Section 514.075, F.S. The minimum passing score for the test shall be no less than 70% correct for all questions. There shall be a minimum of 50 questions.

(3) Any individual or organization requesting the department to review their courses for compliance with the requirements of this rule, must submit copies of their training materials to the department prior to providing that training within the state. A copy of the test to be given, answers to the test questions, and a statement indicating the length of time a classroom topic will be conducted shall be included. The department shall review the materials and inform the applicant of its findings within 60 days from receipt of all training materials.

(4) The department shall deem certified any individual who has been proven certified by a course of

national recognition.

(5) This requirement does not apply to a person or the direct employee of a person permitted as a public pool operator under Section 514.031, F.S. Further, persons licensed under Section 489.105(3)(j), (k), or (l), F.S., shall be deemed certified.

(6) Proof of certification shall be posted conspicuously in the equipment room of each pool serviced or must otherwise be available for inspection by the department.

(7) Any reference to department approval shall state no more than: "This course is approved by the Florida Department of Health for student certification as a Public Pool Service Technician under Chapters 514, Florida Statutes, and 64E-9, Florida Administrative Code."

Rulemaking Authority 381.006, 514.021, 514.075 FS. Law Implemented 514.025, 514.075 FS. History– New 9-25-97, Amended 5-27-04, 5-24-09.