Vermont Swimming Pool Regulations:

**18.0 Swimming Pools, Recreational Water Facilities (RWFs), and Hot Tubs**

18.1 Each licensee shall ensure that all swimming pools, RWFs, and hot tubs are kept sanitary and in good repair.

18.2 Each swimming pool, RWF, and hot tub shall meet the requirements in these regulations, unless local ordinances pertaining to planning and design, lifesaving

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and safety equipment, water quality, and sanitation exist and these ordinances are as restrictive or more restrictive than these regulations.

18.3 Design and safeguards.

18.3.1 Each plan for a new swimming pool or RWF and for a swimming pool or RWF undergoing major renovation, including installation of a diving board, slide, or other similar recreational devices, shall be designed by a licensed engineer, architect, or other qualified professional.

18.3.2 Each grate over a main drain in each swimming pool or RWF shall be intact, firmly affixed at all times, and designed to prevent swimmer entanglement, entrapment, or injury. Other methods to prevent swimmer entanglement, entrapment, or injury may include multiple main drains, anti-vortex drain covers, or any similar device approved by the regulatory authority.

18.3.3 The depth of water in each swimming pool or RWF shall be plainly marked with at least four-inch high numbers of a color that contrasts with the color of the pool decking or vertical pool wall.

18.3.3.1 Water depth markings for an in-ground swimming pool shall be clearly marked on the edge of the deck and visible at all times. In addition, water depth markings may be placed above the water surface on the vertical pool walls and shall be visible at all times.

18.3.3.2 Water depth markings for each above-ground swimming pool or RWF shall be on the edge of the deck and shall be visible to persons entering the swimming pool. If water depth markings cannot be placed on the edge of the deck, another means shall be used so that the water depth is visible to persons entering the swimming pool.

18.3.3.3 The water depth markings in each swimming pool or RWF shall be located in the following areas:

18.3.3.3.1 At the maximum and minimum depths. Intermediate increments of depth may be used in addition to the required maximum and minimum depths; and

18.3.3.3.2 The transition point between the shallow end, which shall be five feet or less, and the deep end, which shall be more than five feet. This transition point shall be marked by a line on the floor and the walls of the swimming pool or RWF or by a safety rope equipped with buoys.

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18.3.4 Each lighting and electrical system for a swimming pool, RWF, or hot tub shall be kept in good repair at all times. The following requirements shall be met:

18.3.4.1 Artificial lighting shall be provided at each swimming pool, RWF, or hot tub if used at night and for each indoor swimming pool, RWF, or hot tub. The lighting shall illuminate all portions of each swimming pool, RWF, or hot tub.

18.3.4.2 All artificial lighting located in the water shall be designed and maintained to prevent electrical shock hazards to guests.

18.3.5 Each outdoor swimming pool and RWF shall be protected by a fence, wall, building, or other enclosure that is at least four feet in height.

18.3.5.1 Each enclosure shall be made of durable material and kept in good repair.

18.3.5.2 Openings in the barrier shall not allow passage of a 4-inch-diameter sphere.

18.3.5.3 Each gate shall have self-closing and self-latching mechanisms. The self-latching mechanism shall be installed at least four feet from the bottom of the gate.

18.3.5.4 A hedge shall not be an acceptable protective enclosure.

18.3.6 Each door leading into an indoor or enclosed swimming pool or RWF area shall have self-closing and self-latching mechanisms. The self-closing mechanism shall be at least four feet from the bottom of the door.

18.4 Lifesaving and safety equipment.

18.4.1 Each swimming pool or RWF shall have lifesaving equipment, consisting of at least one U.S. Coast Guard-approved Type IV flotation device that can be thrown into the water and at least one reaching device.

18.4.1.1 The flotation device shall be attached to a rope that is at least as long as one and one-half times the maximum width of the swimming pool or RWF. If a lifeguard is on duty, lifesaving rescue equipment, including rescue tubes, may also be used.

18.4.1.2 The reaching device shall be a life pole or a shepherd’s crook-type of pole, with a minimum length of 12 feet.

18.4.1.3 Each lifesaving device shall be located in a conspicuous place and shall be accessible. The lifeguard personnel shall keep their rescue equipment close for immediate use.

18.4.1.4 Each lifesaving device shall be kept in good repair.

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18.4.2 A first-aid kit shall be accessible to the lodging employees.

18.4.3 The establishment shall not permit glass containers in the swimming pool, RWF, or hot tub area.

18.4.4 Each swimming pool, RWF, and hot tub and each deck shall be kept clean of sediment, floating debris, visible dirt, mold and algae and shall be maintained free of cracks, peeling paint, and tripping hazards.

18.4.5 Each swimming pool, RWF, and hot tub shall be refinished or relined if the bottom or wall surfaces cannot be maintained in a safe and sanitary condition.

18.4.6 If handrails are not present, all steps leading into the swimming pool or RWF shall be marked in a color contrasting with the color of the interior of the swimming pool and RWF so that the steps are visible from the swimming pool or RWF deck.

18.4.7 All steps, ladders, and stairs shall be easily cleanable, in good repair, and equipped with nonslip treads. Handrails and ladders, if present, shall be provided with a handhold and securely attached.

18.4.8 The rules of operation and safety signs for each swimming pool, RWF, and hot tub shall be posted in a conspicuous place at the swimming pool, RWF, or hot tub. Each swimming pool and RWF without a lifeguard shall have posted the following sign: “Warning – No Lifeguard On Duty.” The sign shall be legible, with letters at least four inches in height.

18.4.9 If chlorinating equipment is located indoors, the chlorinating equipment shall be housed in a separate room, which shall be vented to the outside or to another room that is vented to the outside. If chlorinating equipment is located outdoors and within an enclosed structure, the structure shall be vented to the outside.

18.5 Water quality and sanitation. Each licensee shall ensure that all of the following requirements are met:

18.5.1 Each swimming pool, RWF, and hot tub shall be maintained to provide for continuous disinfection of the water with a chemical process. This process shall use a disinfectant that leaves a measurable residual in the water.

18.5.1.1 If chlorine is used to disinfect the water of any swimming pool or RWF, the water shall have a free available chlorine residual level of at least 1.0 part per million (ppm) and not more than 5.0 ppm. If chlorine is used to disinfect the water of any hot tub, the water shall have a free available chlorine residual level of at least 2.9 ppm and not more than 5.0 ppm.

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18.5.1.2 If bromine is used to disinfect the water of any swimming pool or RWF, the water shall have a disinfectant residual level of at least 1.0 ppm and not more than 5.0 ppm. If bromine is used to disinfect the water of any hot tub, the water shall have a disinfectant residual level of at least 2.0 ppm and not more than 5.0 ppm.

18.5.1.3 Each means of disinfection other than those specified in paragraphs (18.5.1.1) and (18.5.1.2) shall be used only if the licensee has demonstrated that the alternate means provides a level of disinfection equivalent to that resulting from the residual level specified in paragraph (18.5.1.1) or (18.5.1.2).

18.5.2 The pH of the water in each swimming pool, RWF, and hot tub shall be maintained at not less than 7.0 and not more than 8.0.

18.5.3 Each licensee shall use a chemical test kit or a testing device that is appropriate for the disinfecting chemical used and capable of accurately measuring disinfectant residual levels of 0.5 ppm to 20.0 ppm. In addition, a chemical test kit or testing device for measuring the pH of the water shall be used and capable of accurately measuring the pH of water in 0.2 increments.

18.5.4 The water in each swimming pool, RWF, and hot tub shall have sufficient clarity at all times so that one of the following conditions is met:

18.5.4.1 A black disc with a diameter of six inches is clearly visible in the deepest portion of the swimming pool or RWF.

18.5.4.2 The bottom drain at the deepest point of the swimming pool or RWF is clearly visible, and the bottom of the hot tub is clearly visible.

18.5.5 The water in each swimming pool, RWF, and hot tub shall be free of scum and floating debris. The bottom and walls shall be free of dirt, algae, and any other foreign material.

18.5.6 No chemical shall be added manually and directly to the water of any swimming pool, RWF, or hot tub while any individual is present in the water.

18.5.7 The temperature of the water in each hot tub shall not exceed 104 degrees Fahrenheit.

18.5.7.1 Each hot tub shall be operated in accordance with the manufacturer’s specifications.

18.5.7.2 Each hot tub shall have a thermometer or other device to accurately record the water temperature within plus or minus two degrees.

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18.6 Fecal accident in a swimming pool and RWF. If a fecal accident occurs in a swimming pool or RWF, the following requirements shall be met:

18.6.1 In response to any accident involving formed feces, the following requirements shall be met:

18.6.1.1 Direct the guests to leave the swimming pool or the RWF, and do not allow any individuals to reenter until the decontamination process has been completed. The closure times can vary since the decontamination process takes from 30 to 60 minutes;

18.6.1.2 Remove as much fecal material as possible using a net or scoop, and dispose of the material in a sanitary manner. Sanitize the net or scoop;

18.6.1.3 Raise the disinfectant level to 2.0 ppm and ensure that the water pH is between 7.2 and 7.8; and

18.6.1.4 Return the disinfectant level to the operating range specified in paragraph 18.5.1 before the swimming pool or RWF is reopened to guests.

18.6.2 In response to any accident involving diarrhea, the following requirements shall be met:

18.6.2.1 Direct guests to leave the swimming pool or the RWF, and do not allow any individuals to reenter until the decontamination process has been completed;

18.6.2.2 Remove as much fecal material as possible using a scoop, and dispose of the material in a sanitary manner. Sanitize the scoop. Vacuuming the fecal material shall be prohibited;

18.6.2.3 Raise the disinfectant level to 20.0 ppm and maintain a water pH of at least 7.2 but not more than 7.8. This level of concentration shall be maintained at least eight hours to ensure inactivation of Cryptosporidium. A lower disinfectant level and a longer inactivation time may be used according to the following table:

Cryptosporidium inactivation for diarrheal accident

Disinfectant levels (ppm)

Disinfection time

1.0

6.5 days

10.0

16 hours

20.0

8 hours

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18.6.2.4 Ensure that the filtration system is operating and maintaining the required disinfectant levels during the disinfection process. Backwash the filter. Do not return the backwashed water through the filter. Replace the filter medium, if necessary; and

18.6.2.5 Return the disinfectant level to the operating range specified in subsection 18.5.1.

18.7 Vomiting accident in a swimming pool or RWF. If a vomiting accident occurs in a swimming pool or RWF, the procedures in paragraph 18.6.2 shall be followed.

18.8 Body fluid spills at a swimming pool or RWF. All body fluid spills that occur on swimming pool or RWF equipment or hard surfaces, including decking, shall be cleaned and chemically sanitized. Disposable gloves shall be available for employees’ use during cleanup. The following cleanup method shall be used:

18.8.1 Wipe up the spill using absorbent, disposable material. Paper towels may be used;

18.8.2 Use a bleach solution by combining one part bleach and 10 parts water. Pour the bleach solution onto the contaminated surface, leave the solution on the surface for at least 10 minutes, and rinse the surface with clean water;

18.8.3 Disinfect all nondisposable cleaning materials, including mops and scrub brushes, and allow to air-dry; and

18.8.4 Require each employee assisting with the cleanup to wash that employee’s hands with warm water and soap after the cleanup is completed.

18.9 Fecal or vomiting accident in a hot tub. If a fecal accident or vomiting occurs in a hot tub, all of the following requirements shall be met:

18.9.1 All guests shall be required to leave the hot tub, and the water shall be completely drained.

18.9.2 The hot tub shall be disinfected according to the manufacturer’s specifications.

18.9.3 The filtering system shall be disinfected or the filter medium shall be replaced with a clean filter medium before refilling the hot tub with clean water.

18.10 Operation and maintenance of a swimming pool, RWF, or hot tub. Each licensee shall ensure that all of the following requirements for each swimming pool, RWF, and hot tub are met:

18.10.1 Daily operational logs shall be maintained for at least one year at the lodging establishment and made available to the regulatory authority, upon request. These logs shall include the date and time the information

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was collected and the name or initials of the person who collected the information. These logs shall also record the following information:

18.10.1.1 The disinfectant residuals shall be recorded at least once daily when the swimming pool, RWF, or hot tub is available for guest use or more often, if necessary to maintain the water quality as specified in subsection 18.5.

18.10.1.2 The pH test shall be recorded at least once daily when the swimming pool, RWF, or hot tub is available for guest use or more often, if necessary to maintain the water quality as specified in subsection 18.5.

18.10.1.3 The temperature reading of each hot tub shall be recorded at least once daily when the hot tub is available for guest use.

18.10.2 Each fecal and vomiting accident log shall include the time and date of the accident and the disinfection measures taken.

18.10.3 Each indoor swimming pool area and chemical storage room shall be either vented directly to the exterior or vented to a room that is vented directly to the exterior.

18.10.4 All chemicals applied to a swimming pool, RWF, or hot tub shall be used, handled, stored, and labeled in accordance with the manufacturer’s specifications.

18.10.5 All recreational equipment shall be kept sanitary. Recreational equipment shall include slides, diving boards, play equipment, water sports equipment, and accessory items available to guests, including floats, tubes, air mattresses, and pads for water slides.

18.10.6 A cleaning system shall be used to remove dirt, algae, and any other foreign material from the bottom of the swimming pool or RWF.

18.10.7 All surface skimmers, strainer baskets, and perimeter overflow systems shall be kept clean and in good repair.

18.10.8 The water in each swimming pool and each RWF shall be maintained at the manufacturer’s recommended level so that the water will flow into each skimmer and strainer.

18.10.9 The recirculation system serving each swimming pool, RWF, and hot tub shall operate continuously or in accordance with the manufacturer’s specifications. The filtration and recirculation systems shall be maintained in accordance with the manufacturer’s specifications.