

# California Conference of Directors of Environmental Health Recreational Health Technical Advisory Committee

## Guidelines for the Installation and Operation of Fill and Drain Spas and Hot Tubs

(Approved in September 2007 at CCDEH Annual Conference)

### BACKGROUND:

Recent discussions pertaining to the use of above-ground portable hot tubs for commercial use at hotels, motels, bed and breakfast facilities and vacation rental properties has resulted in the need for further clarification as to whether or not these facilities should be regulated as public swimming pools.

Historically, it has been the position of the CCDEH – RHTAC that facilities which meet the following criteria should not be regulated as a public swimming pool and are not required to have permits or inspections:

1. The spa is drained after each individual use.
2. The spa is disinfected after each use.
3. Water temperature is regulated through the tap; a heater is not used to maintain water temperature.
4. There is no filtration system or equipment.

Facilities that comply with the above requirements have been commonly referred to meeting the ***“Fill and Drain Exemption.”*** Facility operators familiar with this exemption have manipulated the requirements to allow portable hot tubs to be placed on the balconies and in courtyards of private guest rooms at hotels, motels, bed and breakfast facilities and vacation rental properties without being regulated by the local Environmental Health Department.

### DISCUSSION:

It is estimated that 500-1000 of these facilities exist throughout California and are primarily concentrated in coastal communities and mountain resort communities. These locations typically offer hotel and resort lodging and vacation property rentals.

The types of spa and hot tub equipment used are generally not designed for commercial use. Also, the components of the system including pumps, filters, and chlorinators do not comply with state building code requirements for public spas.

The use of these facilities creates an unregulated environment with a great potential for the transmission of communicable diseases such as *Pseudomonas* spp., *Legionella* spp., and *Mycobacterium* spp. These facilities also create physical hazards that may result in “slip and fall” type injuries as well as drownings.

Furthermore, this type of facility relies on the disinfectant residual in the potable water used to fill the hot tub. The disinfectant is quickly depleted due to the elevated water temperatures. This directly results in the potential for pathogen amplification. Pathogens such as *Pseudomonas* spp. can multiply rapidly when the disinfectant residual falls below 0.5 ppm or the pH rises above 8.0. Pathogens also can reside in biofilm layers that form in spa pipes and surfaces, where they can be protected from disinfection.

## **PURPOSE:**

The purpose of these guidelines is to provide requirements for the installation and operation of fill and drain spas and hot tubs at hotels, motels, bed and breakfast facilities and vacation rental properties. The implementation of the guidelines will reduce potential biological and safety hazards. **Spas and hot tubs that do not meet these guidelines shall be regulated as public pools in accordance with the requirements of California Code of Regulations, Title 22, Chapter 20 and California Building Code, Chapter 31B.**

This guideline is not intended for spas and hot tubs installed at private residences for non-commercial use and operated by not more than three family owners and their guests. Time share units and long term residential income property shall not be subject to these requirements.

## **FILL AND DRAIN SPAS AND HOT TUBS MAY BE PERMITTED AND SHALL NOT BE REGULATED AS A PUBLIC SWIMMING POOL ONLY IF ALL OF THE FOLLOWING CONDITIONS ARE SATISFIED:**

### **INSTALLATION:**

1. The unit shall be for individual therapeutic use.
2. The unit shall be permanently installed within the private guest quarters.
3. If the unit is installed indoors, adequate exhaust ventilation shall be provided to minimize heat and steam accumulation.
4. The unit shall be constructed of a hard non-absorbent material such as fiberglass, acrylic or ceramic tile. PVC or vinyl-liner materials shall not be used.

5. Newly installed units shall be certified in compliance with ANSI Z 124.1.2-2005; IAPMO IGC 171-2006; or ASME A112.19.7-2006.
6. The unit shall be installed in accordance with the manufacturer's instructions, California Plumbing Code and Article 680 of the California Electric Code.

**OPERATION:**

7. The unit shall be filled with hot potable water immediately prior to use. The water fill line shall be protected with an approved backflow prevention device.
8. The water temperature shall be regulated through a mixing valve. An in-line electric heater that is controlled by the activation of the jet system may be utilized to maintain the water temperature. The heater shall not exceed 2000 Watts.
9. A thermometer shall be provided to ensure that the water temperature does not exceed 104° F. A sign shall be posted adjacent to the unit stating, "**Max. Temp. 104° F.**"
10. The unit shall be completely drained immediately after use. A drain shall be located at the lowest part of the unit and all plumbing components shall be self-draining. All wastewater shall be disposed of in an approved manner and shall not create a public nuisance.
11. The unit shall be cleaned and sanitized by housekeeping staff after each use. Written procedures for cleaning and sanitizing shall be provided on-site and maintained by the operator. The sanitizer solution shall be an **EPA-registered disinfectant** and shall be recirculated through the jet and/or aeration system in accordance with the disinfectant manufacturer's directions.
12. The unit shall not be designed to incorporate a filtration system or a water treatment system.