

## Appendix 12e: Environmental Health Checklist When Responding to a Single Legionnaires' Disease Case with Spa Exposure

### Records review and discussions for management

1. Visit the establishment and review the pool and spa logs for the last month to see if they have been running appropriately. Provide copy of logs to Epi.
2. Have there been any complaints from patrons or staff?
3. Provide *Legionella* factsheet to management and ask that they share information on the signs and symptoms of *Legionella* with all staff. [Legionnaires' Disease \(state.mn.us\)](https://www.health.state.mn.us/communities/environment/recreation/pools/docs/legionnaires_disease_factsheet.pdf)
4. Provide CDC best practices guide to management as a resource: [Controlling Legionella in Hot Tubs \(cdc.gov\)](https://www.cdc.gov/eid/article/2013/29/29-03_hot_tubs.pdf).
5. If the facility is a vacation home rental, here are some additional resources that may be useful:
  - a. [Vacation Rental Owners and Managers \(cdc.gov\)](https://www.cdc.gov/eid/article/2013/29/29-03_hot_tubs.pdf)
  - b. [Residential Swimming Pool and Spa Rentals \(PDF\) \(https://www.health.state.mn.us/communities/environment/recreation/pools/docs/residentialpoolfaqs.pdf\)](https://www.health.state.mn.us/communities/environment/recreation/pools/docs/residentialpoolfaqs.pdf)
6. Have there been any maintenance issues (broken pump, spa closed, etc.)? If so, what issues and when?
7. Ask management how often they clean, scrub, and refill the spa.
8. Are there any water features onsite (e.g., decorative fountains, kiddie pool spray features)? If so, how often are those cleaned and how?

### Observations and spa check

9. Check the chemicals in the spa and see if they are at appropriate levels.
10. Check the walls and skimmers of the spa for any biofilm or slime build-up.
11. How is the ventilation in the pool area?
12. Remediate the spa:
  - a. Drain the spa
  - b. Scrub and clean all surfaces, including skimming devices and weirs, using water with a minimum free chlorine of 5 ppm.
  - c. Rinse all spa surfaces with fresh potable water and drain as needed.
  - d. Replace filters or filter media (if applicable).

- e. Repair parts as needed.
- f. Refill the spa and then hyperchlorinate.
  - i. Maintain chlorine at 20 ppm for a total of 10 hours.
  - ii. During the 10 hours, leave the jets off for the first hour and then run the jets for the remaining 9 hours.
- g. Flush the entire system with fresh potable water and refill.
- h. Return the spa to the routine disinfectant residual level.

## **Additional follow-up for establishments with more than one sporadic case within a year**

- 1. Close the spa immediately.
- 2. Collect samples using the *Legionella* Sampling Instructions provided by Epi.
- 3. Follow CDC guidance to disinfect the spa. [Controlling Legionella in Hot Tubs.](#)
- 4. Additional questions to ask management:
  - a. What type of filter(s) do they use? (sand, diatomaceous earth, cartridge)
  - b. When was the filter(s) last changed?
  - c. When were the filter(s) last backwashed?
  - d. Date spa was last drained and scrubbed?
    - i. What is their normal procedure for draining and cleaning the spa? Are they physically scrubbing spa to remove biofilm?
- 5. Once samples are taken and remediation is complete, EH and Epi can discuss next steps for reopening of the spa.