

LEGIONELLA ENVIRONMENTAL ASSESSMENT FORM

Person completing the assessment:

Name: _____ Title: _____

Telephone: _____ Organization: _____

Email: _____ Date Form Completed: _____

Facility Characteristics

- 1. Is this a healthcare facility or senior living facility with skilled nursing care** (e.g., hospital, long term care/rehab/assisted living/skilled nursing facility, or clinic)?
 Yes → If yes, skip to Q.3 & also complete Appendix A.
 No
- 2. If NO, indicate type of facility** (check all that apply):
 Senior living facility (e.g., retirement home without skilled nursing care)
 Other residential building (e.g., apartment, condominium)
 Hotel, motel, or resort
 Recreational facility (e.g., health club, water park)
 Manufacturing facility
 Other _____
- 3. Total number of buildings on the premises:** _____
- 4. Total number of floors including basement levels:** _____
- 5. Total number of rooms that can be occupied overnight** (e.g., patient rooms, hotel rooms): _____
- 6. Average length of stay for occupants:** 1 night 2–3 nights 4–7 nights >7 nights
- 7. Can windows in patient/guest rooms be opened?** YES NO
- 8. Does occupancy vary throughout the year?** YES NO
If YES, seasons with lowest occupancy (check all that apply): Winter Spring Summer Fall

9. Are any occupant rooms taken out of service during specific parts of the year, e.g., low season?

- YES NO

If YES, which rooms? _____

10. Did the facility recently experience (last 12 months) a period of prolonged, reduced occupancy, or a building closure?

- YES NO

If YES, which rooms/buildings? _____

11. Describe any interventions taken as a result (e.g., flushing, hyperchlorination):

12. Has there been any recent (last 6 months) or ongoing major construction on or around the facility premises?

- YES → If yes, also complete Appendix B.
 NO

13. Has this facility been associated with a previous case of Legionnaires' disease?

- YES
 NO

If YES, please describe number of cases, dates, source if found, and any interventions (immediate and long-term) to prevent recurrence:

14. Does the facility have a Water Management Program, water safety plan, or *Legionella* prevention program?

- YES → If yes, include a copy
 NO

If YES, does the facility ever test for *Legionella* in water samples?

- YES → If yes, include copies of results
 NO

15. Describe each building that shares water or air systems, including the main facility

Building Name (List main facility case-patient was exposed to first)	Original Construction Year Completed	Later Construction (Renovation, expansion) From/To or "N/A"	Stories or Levels #	Occupancy Rate (%)	Daily Census (Average) #/day	Use (List all types of uses)
1.				Low Period: High Period:		
2.				Low Period: High Period:		
3.				Low Period: High Period:		
4.				Low Period: High Period:		
5.				Low Period: High Period:		

Water Supply Source

16. What is the source of the water used by the facility? (Check all that apply)

Public Water System, if YES:

Name of supplier _____

How is the municipal water disinfected? Chlorine Monochloramine Other _____

Has treatment of municipal water changed in the past year? YES NO

If YES, specify _____

Private well, if YES:

How is the well water disinfected? Chlorine Not disinfected Other _____

Is the water filtered onsite? YES NO Other _____

17. Have there been any pressure drops, boil water advisories, or water disruptions (e.g., water main break) to the facility in the past 6 months (in public water system off premise and/or on facility property)?

YES NO

If YES, describe what happened and which buildings or parts of buildings were affected:

18. Does the facility monitor incoming water parameters (e.g., residual disinfectant, temperature, pH)?

YES → If yes, include copies of the logs

NO

Premise Plumbing System

19. Are cisterns and/or water storage holding tanks used to store cold potable water?

YES NO

20. Are there water softeners used on incoming water? YES NO

21. Are water filters used on incoming water (e.g., point-of-entry carbon filter)? YES NO

22. Are expansion tanks used on the building's potable water system? YES NO

If YES, how many? _____

23. How is the hot water system configured to deliver hot water to each building?

Building Name	Type of System <small>(e.g., instantaneous heater, water heater with a storage tank, solar heating)</small>	Name of System <small>(e.g., Boiler #1, Loop #1)</small>	Date of Installation	Total Storage Capacity <small>(Gallons)</small>	Temperature Set-Point of Water Heater <small>(°F)</small>	Centralized Thermostatic Mixing Valves Installed? <small>(prior to delivering water to points of use)</small> <small>(yes/no)</small>	Hot Water Recirculating System? <small>(yes/no)</small>	Distal Outlet or Return Line Temperature <small>(°F)</small>	Areas Served <small>(e.g., rooms, floors)</small>

24. What is the maximum hot water temperature at the point of delivery permitted by state / local regulations? _____ °F

25. Are hot water temperatures ever measured by the facility at the points of use?

YES → If yes, attach copies of the temperature logs

If YES, what is the average documented hot water temperature: _____

If YES, what is the range of documented hot water temperatures: _____

NO

26. Are cold water temperatures ever measured by the facility at the points of use?

YES → If yes, attach copies of the temperature logs

If YES, what is the average documented cold water temperature: _____

If YES, what is the range of documented cold water temperatures: _____

If YES, what is the typical cold water temperature measured in the summer? _____

NO

27. Are the potable water disinfectant levels (e.g., chlorine) ever measured by the facility at the points of use?

YES → If yes, obtain copies of the logs

If YES, how often are they measured?

If YES, list the range of disinfectant residuals:

Summer: _____ Winter: _____

NO

28. Does the facility have a supplemental disinfection system for long term control of *Legionella* or other microorganisms?

YES → If yes, obtain SOPs for routine use and maintenance as well as maintenance logs and records of disinfection levels, and complete the below table

NO

Buildings with supplemental disinfection (specify hot, cold, or both)	Type of system (e.g., chlorine, chlorine dioxide, copper-silver)	Date Installed	Maintenance Personnel and Contact Information (in-house or consultant)

29. Does the facility have any electronic or sensor faucets at points of use?

YES NO

If YES, where: _____

30. Does the facility have any metering faucets or shower systems (e.g., timer, push button design)?

YES NO

If YES, where: _____

31. Does the facility have any water filters installed at points of use (e.g., carbon filters, 0.2-micron biological filters)?

If YES, where: _____

32. Does the facility have ice machines?

YES NO

If YES, list location with facility, manufacturer, model number, cleaning procedures and frequency:

33. Please describe any maintenance (either routine or emergency) carried out on the potable water system and its components (e.g., hot water tanks, mixing valves, showerheads, etc.) in the past year. Provide records/SOPs if available.

Emergency Water Systems

34. Does the facility have emergency fire protection system?

YES → Wet Dry

NO → If no, skip to Q.35

If YES, is the system fed by its own main or does it branch off the same main as the potable water system?

Separate main from potable water

Shared main as potable water system

If SHARED, describe back flow prevention (e.g., reduce pressure zone) _____

35. Does the facility have eye wash stations (connected to the potable water) or safety showers?

YES NO

If YES, how often and when was the last test? _____

Facility Devices Overview

36. Are there any cooling towers or evaporative condensers on the facility premises?

YES → If yes, also complete Appendix C.

NO

37. Are there any hot tubs, whirlpool spas, or hydrotherapy spas on the facility premises?

YES → If yes, also complete Appendix D.

NO

38. Are there any decorative fountains, misters, water features, etc. on the facility premises?

YES → If yes, also complete Appendix E.

NO

39. Does the facility have centralized humidification (e.g., on air-handling units) or any room humidifiers?

YES NO

If YES, describe their location and operation:

40. Does the facility have a landscape irrigation or sprinkler system?

YES NO

If YES, describe their location and operation, including backflow prevention:

Appendix A. Healthcare Facilities

Note: Complete for all healthcare facilities, including but not limited to hospitals, long term care/rehab/assisted living/skilled nursing facilities, or clinics.

1. Type of healthcare facility (check all that apply):

Acute care hospital

If YES, does the facility have a solid organ or bone marrow transplant program? YES NO

Long term care facility (i.e., nursing home, long term acute care)

Rehabilitation facility or other skilled nursing care

Assisted living facility

Outpatient surgical center

Other outpatient clinic (describe): _____

Other healthcare facility (describe): _____

2. Number of beds: _____

3. Are ice machines used to provide ice for patient consumption or processing medical equipment?

YES NO

If YES, list manufacturer and model or catalog number _____

4. Does this facility use respiratory therapy equipment (e.g., CPAP, bronchoscopes, heater-cooler units)?

YES NO

If YES, describe (source of water used in devices, source of water used to clean devices, and cleaning and drying procedures): _____

5. Has this facility experienced previous Legionnaires' disease cases that were "possibly" or "presumptively" facility-acquired? Note: "Possible" healthcare-acquired disease is defined as a case that spent a portion of the 14 days before date of symptom onset in one or more healthcare facilities, but does not meet the criteria for presumptive healthcare-associated Legionnaires' disease. "Presumptive" healthcare-acquired disease is defined as a case with greater than or equal to 10 days of continuous stay at a healthcare facility during the 14 days before onset of symptoms.

YES NO

If YES, describe (e.g., number of cases, dates): _____

Appendix B. Recent or Ongoing Major Construction (past 6 months)

1. Describe in general the extent of the construction including location and start/end dates (or estimated completion date).

2. Was temporary water service provided to the new construction area (i.e., separate meter)?

YES NO

If YES, describe: _____

3. Has jack-hammering or pile-driving been used during the construction process?

YES NO

If YES, list dates and locations: _____

4. Have there been disruptions or changes to the existing potable water system during the construction?

YES NO

If YES, describe: _____

5. Has the potable water changed in terms of taste or color during the construction process?

YES NO

If YES, describe the changes including when they started and ended: _____

6. Is there a standard operating procedure (SOP) for shutting down, isolating, and refilling/flushing for water service areas that have been subjected to repair and/or construction interruptions?

YES NO

If YES, briefly describe the steps used in the SOP (attach a copy if possible): _____

7. Was the potable water system flushed before occupying any new building space?

YES NO NOT APPLICABLE

If YES, what period of time passed between flushing and when the building was occupied? _____

Appendix C. Cooling Towers

General Cooling Tower Disinfection, Operation and Maintenance Characteristics

1. Disinfectant used in cooling tower(s)?

- YES
 NO

If YES, what type of disinfectant is used?

Oxidizing YES NO

Non-oxidizing YES NO

List name(s) of disinfectant used (e.g., chlorine, bromine) _____

2. Target range in which the disinfectant is regularly maintained: _____

3. Type of disinfectant dosing system?

- Hand fed Automatic dosing by chemical controllers Not Applicable

4. Schedule of adding disinfectant (e.g., daily, weekly, as needed): _____

5. Are disinfectant levels monitored?

- YES → If YES, how often and by whom? _____
 NO

6. Scale and/or corrosion inhibitors used?

- YES
 NO

7. Type of scale/corrosion inhibitor dosing system?

- Hand fed Automatic dosing by chemical controllers Not Applicable

8. Schedule of adding scale and corrosion inhibitors (e.g., daily, weekly, as needed): _____

9. Are chemical metering pumps properly maintained and in good condition? YES NO

10. Is there an adequate supply (at least 30 days) of chemicals on-hand? YES NO

11. Is *Legionella* testing ever performed on the cooling tower?

- YES → If YES, how often and by whom: _____

12. Is the cooling tower turned off at any time?

- YES → If YES, describe: _____
 NO

13. Are there start-up and shut-down procedures for the cooling tower? YES NO

If YES, describe: _____

14. When was the cooling tower last cleaned? _____

15. At what frequency are the scheduled cleanings and what do they include? _____

16. Were there any recent (last 6 months) special (non-routine) treatments, maintenance, or repairs to the cooling tower(s)? YES NO

Specify tower ID(s), date, and actions taken: _____

Appendix D. Hot Tubs, Whirlpool Spas, and Hydrotherapy Spas

1. Who operates and maintains the hot tub (e.g., on-site facilities management, name of outside contractor)? Describe their role and frequency of maintenance: _____

2. Describe each hot tub and how it is maintained:

Hot Tub Questions	Hot Tub #1	Hot Tub #2
Hot tub descriptor/location (e.g., main, private room #)		
Indoor or outdoor		
Max. bather load		
Filter type (e.g., sand, diatomaceous earth, cartridge)		
Date filter was last changed		
Frequency of filter/filter media replacement		
Date of last filter backwash		
Frequency of filter backwash		
Compensation tank present?		
Type of disinfectant used (Chemical name, formulation, and amount used)		
Current measured disinfectant level (e.g., free chlorine, bromine) (ppm)		
Current measured pH		
Method used for adding disinfectant (e.g., automatic feeder, by hand)		
Method used for monitoring and maintaining disinfectant and pH levels (e.g., automatic controllers)		
Date last drained and scrubbed		
Water replacement frequency (e.g., complete drain and refill)		

Appendix E. Other Water Devices

Complete for decorative fountains, water walls, recreational misters, etc. This can also be modified for industrial use water.

Water Feature Questions	Feature #1	Feature #2
Descriptor/Location (e.g., lobby fountain, cabana misters)		
Is the device equipped with a filter? If so, record type.		
Indoor or outdoor		
Source of water		
Operates continuously (C) or intermittently (I)		
Presence of a heat source? (e.g., incandescent lighting)		
Current Water Temperature		
Type of disinfectant used (include chemical name, formulation, and amount used)		
Current measured disinfectant level (e.g., free chlorine, bromine) (ppm)		
Current measured pH		
Is there a maintenance protocol?		
Date last cleaned and/or flushed		
Operating as designed and in good repair? If no, describe issues.		