Current version — 2026-10-29. Update history:
https://healthcarefacilityhub.org/legionella-water-management-ashrae-188-cdc-toolkit-cms-requirements/

Hospital Legionella Water Management: ASHRAE 188 & Q4 Seasonal Lay-Up

DIRECT ANSWER: Medicare-certified hospitals, critical access hospitals, and long-term care facilities must run an active Water Management Program (WMP) meeting ANSI/ASHRAE Standard 188-2021, the CDC Toolkit, and CMS QSO-17-30. Under Joint Commission standard PE.04.01.05 (effective Jan 1, 2026), facilities must document system flow diagrams, routine disinfectant residuals (≥ 0.5 ppm free chlorine), temperature control (≥ 140°F storage, ≥ 120°F return), Q4 seasonal lay-up protocols, and clear corrective action thresholds.

Q4 Cooling Tower Seasonal Lay-Up & Winterization Protocol (ASHRAE Guideline 12-2023 § 8)

• **Pre-Shutdown Biocide Shock:** Circulate oxidizing biocide (free chlorine or chlorine dioxide) maintaining **5–10 ppm free halogen residual for 4–6 hours** throughout basin, heat exchangers, and cooling loop prior to system shutdown.
• **Complete Drainage & Wash:** Completely drain the tower basin, sump, and chiller condenser bundle. Power-wash fill pack and mist eliminators to remove biofilm, scale, and organic sediment.
• **Dry Lay-Up:** Leave tower basin drain valves locked open; verify dry conditions to prevent standing water accumulation.
• **Wet Lay-Up (Standby/Heating Season):** Maintain automated biocide dosing and run automated recirculation pumps weekly for ≥ 1 hour to prevent stagnant dead legs.

Legionella Testing Action Levels & Remediation Matrix (CDC / CMS QSO-17-30)

Test Result Range	Control Status	Required Operational & Engineering Action
< 1 CFU/mL (< 1,000 CFU/L)	Well-controlled	Maintain baseline biocidal control (≥ 0.5 ppm free Cl / ≥ 1.5 ppm monochloramine at distal outlets; storage ≥ 140°F, delivery ≥ 120°F). Continue routine monitoring.
1–9 CFU/mL	Potential amplification	Re-sample affected wing within 3–5 days. Inspect thermostatic mixing valves (TMVs) for scale. Verify temperature profiles across supply/return risers. Execute targeted fixture flush.
≥ 10 CFU/mL or ≥ 30% positive outlets	Immediate corrective action required	**1. Thermal Eradication:** Flush water at 160°F–170°F (71°C–77°C) for ≥ 30 min per distal fixture (scald monitors posted). **2. Hyperchlorination:** 20–50 ppm free Cl for 2–24 hrs; flush to < 4 ppm before use. **3. Point-of-Use Filters:** Install 0.2-µm sterilizing filters in ICU, onc, transplant.

__Compliance & Legal Disclaimer:__ This field sheet provides engineering and water management standards and does not constitute formal medical or public health advisory counsel. All testing protocols and chemical remediation procedures must be approved by the facility's Water Management Program (WMP) Committee and local health authorities.