ASHRAE 188 Legionella Water Management Plan Testing Template

1.0 Form Objective & Asset Scope

This testing template is designed to document routine monitoring and verification activities for a Legionella Water Management Plan (WMP) as per ASHRAE Standard 188. It applies to building water systems including cooling towers, hot water storage tanks, potable water distribution, and decorative fountains. The log ensures compliance with Canadian provincial health regulations and supports proactive risk management to prevent Legionnaires' disease.

Critical for reliability and compliance, this log tracks key control measures such as disinfectant residuals, temperature ranges, and microbiological sampling results. It provides a structured record for audits and facilitates corrective actions when parameters fall outside established limits.

2.0 Administrative & Asset Details

Date of Testing: _____

Technician Name: _____

Facility Name: _____

System ID / Asset Tag (e.g., CT-01, HWT-02): _____

Water System Type (Cooling Tower / Hot Water / Cold Water / Fountain): _____

Sample Point Location: _____

Weather Conditions (if outdoor system): _____

3.0 Inspection / Parameter Checklist

☐ Pass ☐ Fail - Verify hot water return temperature is ≥ 60°C (140°F) at the farthest fixture.

☐ Pass ☐ Fail - Measure free chlorine residual in cold water supply (target 0.5–2.0 ppm).

☐ Pass ☐ Fail - Record pH level of cooling tower water (target 6.5–8.5).

☐ Pass ☐ Fail - Inspect cooling tower drift eliminators for damage or fouling.

☐ Pass ☐ Fail - Check biocide feed system operation and chemical levels.

☐ Pass ☐ Fail - Collect and submit water sample for Legionella culture (ISO 11731).

☐ Pass ☐ Fail - Measure total dissolved solids (TDS) in cooling tower blowdown.

☐ Pass ☐ Fail - Verify storage tank temperature is maintained below 20°C (68°F) for cold water.

☐ Pass ☐ Fail - Inspect all dead-leg piping for stagnation (pipes > 1 inch diameter unused for 30 days).

☐ Pass ☐ Fail - Record disinfectant residual at point-of-use (e.g., chlorine dioxide, monochloramine).

☐ Pass ☐ Fail - Check backflow prevention devices for proper operation.

☐ Pass ☐ Fail - Document any recent water outages or repairs that could affect system integrity.

4.0 Deficiencies & Work Order Generation

Issue Description (e.g., low chlorine residual, high TDS, temperature out of range):
_____

Corrective Action Taken (e.g., chemical adjustment, flushing, repair): _____

Parts / Chemicals Required: _____

Work Order Number (if generated): _____

Follow-up Date / Re-test Required: _____

5.0 Sign-off & Return to Operations

Maintenance Technician Signature: _____ Date: _____

Water Management Team Lead Review: _____ Date: _____

Facility Manager Approval (if corrective action required): _____ Date: _____