

Company Name: _____

Maintenance Forms & Logs

Date: _____

Log ID: _____

Version: 1.0

Commercial Cooling Tower Daily Water Treatment Conductivity Log

1.0 Form Objective & Asset Scope

This daily water treatment conductivity log is designed to track key water quality parameters for commercial cooling towers. Proper water treatment prevents scale formation, corrosion, and biological fouling, which directly impacts heat transfer efficiency and equipment lifespan. This log supports compliance with OEM water treatment guidelines and helps identify trends that require corrective action.

Scope includes all forced-draft and induced-draft cooling towers serving HVAC systems, process cooling, or refrigeration in commercial facilities. This log is critical for reliability engineers and facility managers to ensure optimal water chemistry and minimize unplanned downtime.

2.0 Administrative & Asset Details

Date: _____

Technician Name: _____

Cooling Tower ID / Asset Tag: _____

System Location (e.g., Roof, Mechanical Room): _____

Make/Model: _____

Hour Meter Reading (if applicable): _____

Weather Conditions (e.g., Sunny, Rain, Hot): _____

3.0 Inspection / Parameter Checklist

- ☐ Pass ☐ Fail - Verify conductivity meter is calibrated per manufacturer instructions.
- ☐ Pass ☐ Fail - Record conductivity reading ($\mu\text{S}/\text{cm}$) from tower sump sample.
- ☐ Pass ☐ Fail - Record pH reading from tower sump sample.
- ☐ Pass ☐ Fail - Record temperature of tower sump water ($^{\circ}\text{C}$ or $^{\circ}\text{F}$).
- ☐ Pass ☐ Fail - Check biocide residual level (ppm) and record value.
- ☐ Pass ☐ Fail - Inspect tower basin for visible debris, algae, or sludge accumulation.
- ☐ Pass ☐ Fail - Verify chemical feed pumps are operational and dosing correctly.
- ☐ Pass ☐ Fail - Check bleed-off (blowdown) valve operation and adjust if needed.
- ☐ Pass ☐ Fail - Inspect make-up water float valve for proper operation.
- ☐ Pass ☐ Fail - Record make-up water meter reading (if available).

☐ Pass ☐ Fail - Verify drift eliminators are intact and free of blockage.

☐ Pass ☐ Fail - Check fan motor amp draw and vibration levels (visual/audible).

4.0 Deficiencies & Work Order Generation

Issue Description (e.g., high conductivity, low pH, algae growth): _____

Corrective Action Taken (e.g., adjusted bleed-off, added biocide): _____

Parts Required (e.g., chemical pump rebuild kit, float valve): _____

Work Order Number (if generated): _____

Follow-up Required By Date: _____

5.0 Sign-off & Return to Operations

Maintenance Technician Signature: _____ Date: _____

Reliability Manager Review: _____ Date: _____

Date of Review: _____ Date: _____

Regulatory Disclaimer: This maintenance log is a generic template. The end-user assumes all liability for validating all inspection parameters, PM frequencies, and tolerances against specific OEM machinery manuals before active shop floor deployment.