READY TO INSPECT — FIELD CHECKLIST

Cooling tower quarterly maintenance checklist

A quarterly cooling tower round is short on purpose: it catches the wear items that fail between annual services. This checklist is sized for a tech with a phone. Every item says what to look at and the photo that proves the round happened. Work is commonly verified against manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The water-treatment or mechanical tech on the quarterly rooftop round. When: Every quarter during the cooling season, timed with the treatment vendor's visit so the dip test and the mechanical look happen together.

Records and lockout

- [ ] Water management program on file and current
  The site's Legionella water management program on file, with control limits, sampling plan and corrective actions, and its last review inside the owner's schedule.
  No photo required

- [ ] Treatment logs and lab results reviewed
  Vendor service reports, conductivity logs and any bacteria or Legionella results since the last round on file, each out-of-range result showing a corrective action.
  No photo required

- [ ] Fan and pump locked and tagged before reaching in
  Fan and pump locked and tagged by each worker before hands go into the basin or fan section; running checks use the procedure's temporary release (doors shut, people clear), then re-lock.
  1 photo required

Basin and water

- [ ] Basin checked for sludge, algae and debris
  Cold-water basin visually clear, no biofilm or leaf mat over the suction screen, strainer clean and seated.
  2 photos required

- [ ] Makeup float and overflow set correctly
  Float shuts off at the design level, no continuous overflow to the roof drain, makeup valve not weeping past.
  1 photo required

- [ ] Bleed running and treatment present
  Bleed line open and flowing, conductivity within the treatment vendor's range, chemical feed and biocide reservoirs not run dry.
  2 photos required

- [ ] Basin seams and casing checked for leaks
  Basin seams, outlet flanges and casing panels dry on the outside, no drips or wet staining on the roof, dunnage or steel below the tower.
  1 photo required

Fill and drift

- [ ] Fill and water distribution checked from the top
  Even sheeting across the fill, spray nozzles or distribution basin not clogged, no dry channels or heavy scale on the pack face.
  2 photos required

- [ ] Drift eliminators seated and intact
  Eliminator sections in place with no gaps, no carryover misting off the tower, no crushed or displaced panels.
  1 photo required

- [ ] Air inlets and louvers clear of debris and growth
  Inlet louvers or screens free of leaves, scale and algae, no splash-out onto the roof, panels seated in their frames and not sagging.
  1 photo required

Fan and drive

- [ ] Fan, belt and bearings observed running
  Fan turning freely in the correct direction, belt tensioned and not glazed, no bearing squeal or wobble at speed.
  1 photo required

- [ ] Gearbox oil level and motor checked where fitted
  Sight glass at level with no milky water intrusion, no oil weep at seals, motor not running hot or drawing off-nameplate.
  No photo required

Return to service

- [ ] Locks removed and tower returned to automatic
  Access doors closed and guards on, locks removed by the person who hung them, fan and pump restarted and left in auto under the controls, not in hand.
  1 photo required

- [ ] Findings logged against the water management plan
  Scale, biofilm, drive wear and out-of-range readings logged against the water management program and reported to the owner and the treatment vendor.
  No photo required