

Cooling tower annual maintenance checklist

The annual cooling tower service is the deep pass: the measurements, cleanings and tests a quarterly round doesn't reach. This checklist keeps the full service on record with the photos that make it defensible later. Work is commonly verified against manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The mechanical service crew on the annual shutdown, with the treatment vendor for the disinfection. When: Once a year at startup or layup, when the tower can be shut down and drained. The clean-out is what keeps scale and biofilm from carrying into the next season.

Drain and clean

- ☐ **Basin drained, cleaned and disinfected**
Basin emptied to bare metal or FRP, sediment and biofilm removed, disinfection performed and logged with the treatment vendor. 3 photos required
- ☐ **Fill and drift eliminators pulled and inspected**
A section of fill lifted for scale and fouling behind the face, eliminators pulled, cleaned and resealed with no gaps. 2 photos required

Mechanical section

- ☐ **Gearbox serviced and fan balance checked**
Gearbox oil changed and sampled, fan blade pitch and tip clearance within spec, no cracks at hubs, balance verified. 2 photos required
- ☐ **Vibration switch and belt drive serviced**
Vibration cut-out functionally tripped and reset, belts replaced or re-tensioned, bearings greased on the service schedule. 1 photo required

Structure and controls

- ☐ **Structural steel, fasteners and casing inspected**
Waterline and support steel checked for corrosion and section loss, casing and louvers sound, ladder and handrail secure. 2 photos required
- ☐ **Basin heater, level and safety controls verified**
Freeze-protection heater and thermostat operational where fitted, level controls and low-water cutout proven, alarms reporting. 1 photo required