

What should I do to prepare my cooling system for startup?

The checklist below outlines preventive maintenance that should be addressed prior to seasonal start-up of your cooling system.

CHEMICAL REVIEW

- Review all cooling water treatment chemicals used in the system.
- Identify the purpose of each chemical and confirm feed method and schedule
- Review safety procedures for all chemicals used in the system.
- Review testing and recording procedures.
- Inventory reagents used for testing and note if any have expired.

COOLING TOWER MECHANICALS

- Clean all debris within and around the sump and distribution decks, flush as required.
- Check and clean strainers, bleed, overflow, nozzles and drain.
- Follow manufacturer's recommendations to lubricate fan and motor bearings.
- Follow manufacturer's recommendations to change oil in gear reducer assembly.
- Check belts, motor pulley and motor mounts. Replace and adjust as required.
- Inspect electrical connections, contactors, relays and operating/safety controls.
- Check motor operating conditions.
- Clean float valve assembly and check that it is operational.
- Check operating setpoints. Adjust as required.
- Read water meter prior to filling the system to determine system capacity. Record in log book.

WATER TREATMENT

Open Cooling Systems

- Clean and calibrate sensors, verify all controller settings and functions, inspect water meters, and validate proper operation of the flow switch and bleed valve.
- Chemically test the system water for proper bleed rate and treatment levels. Adjust accordingly.
- Visually inspect open portions of the system for evidence of corrosion, scale or slime and algae growth.
- Slug feed biocide and antifoam (if applicable) to control slime and algae growth. Conduct microbiological test.
- Confirm all chemical pumps are free of leaks, fully functional, and primed.
- Inspect all chemical tubing for cracks.
- Inventory the remaining water treatment chemicals and re-order as required.

Closed Cooling Systems

- Chemically test the system water for proper treatment levels.
- Adjust the treatment level for proper operation.
- Conduct microbiological test in chilled or process loops.
- Record results of the test and inspection including recommendations in log book.
- Install new filters in filter housing.

Do you need help with your cooling system startup? Ask your Watertech representative to help with the waterside of your system.

Cooling systems that are idle over winter can provide excellent conditions for bacteria to grow.

When starting a cooling system after layup, some basic steps should be followed to ensure peak performance and minimize risk of Legionella.

