

WATER TREATMENT

COOLING TOWER CONTROL PROCEDURE

CORROSION INHIBITOR

1. Check daily to 3 times a week - pH, conductivity, inhibitor
2. Adjust dosage based on weekly checks
3. Send sample to lab quarterly
4. Adjust dosage based on lab results if necessary
5. Visually inspect inside and outside of tower weekly; record makeup water usage

BIOLOGICAL CONTROL

1. Add biocide A (oxidizing chemistry) and Biocide B (non-oxidizing chemistry) alternating in the system with slug doses twice weekly.
2. Check weekly - visual test and dip slide. Clean ORP probe weekly (if used)
3. Continuous feed of bromine (in tablet or solid feeders) or onsite generation of chlorine dioxide and ozone using ORP measurement control is increasingly used to supply the oxidizing chemistry. It is still highly recommended to use a non-oxidizing chemistry as well to control those organisms resistant to oxidizing chemistries.
4. Send sample to lab quarterly. Test with dip slides monthly or quarterly.
5. Adjust dosage based on lab results if necessary
6. Visually inspect inside and outside of tower weekly

TYPICAL COOLING TOWER CONTROL RANGES

Item	Control Range
Appearance	Water clear, no algae or scale in tower
Conductivity	800-2000
pH	7.5-9.0
Total Hardness	1000 max
Cl or Br	1-3 ppm minimal residue
Total Alkalinity	100-400 ppm (80-120 preferred)
Orthophosphonate level	8-20 ppm
Residual Oxidizer (Cl or Br)	0.5 – 1.0 ppm