

COOLING TOWER CLEANING PROCEDURE

PRE-CLEANING DISINFECTION

1. Introduce heavy bleed off for several hours to drop pH and dissolved solids
 - a. Drop cycles of concentration to a lower pH (around 8 if possible)
2. Oxidizing biocide with use of bio dispersant if applicable
3. Bio dispersant should be added 30 minutes before the addition of the oxidizing biocide
 - a. Circulate throughout the cooling tower water system
4. Chlorine addition
 - a. 5 ppm as free chlorine for a minimum of 5 hours
 - b. 25 ppm as free halogen for 2 hours
 - c. 50 ppm as free halogen for 1 hour
5. Turn off the cooling tower fans until disinfectant is mixed
6. Once disinfectant is mixed, return tower to normal operation.
7. Once system is disinfected, dechlorinate (if necessary) and drain

MECHANICAL CLEANING OF COOLING TOWER

1. Cleaning methods that create spray and aerosolization should be avoided
2. High pressure jetting should only be done if necessary
 - a. Make sure area is unoccupied, air inlets are blanked off, and tent off the area
3. Follow manufacturers guidelines for maintenance
 - a. Fill may have limitations that you may need to consider
4. "Cleaning staff that carry out water jetting, or other operations which could create aerosols, should wear suitable respiratory PPE"
 - a. Potential for bacteria exposure is always present
5. Another chemical cleaning may be required post mechanical cleaning to remove deposits

POST-CLEANING DISINFECTION

1. System should be refilled and disinfected using the pre-cleaning procedure
2. If unable to achieve shock levels, the disinfectant level can be allowed to decay over the first few hours of operation and startup of normal water treatment chemicals.
3. If the system is going to be left idle, drain, and flush the system and leave empty