

Tower Operation in Winter Months

No matter what type of cooling tower system you have, one thing is certain - once October rolls around there is much less cooling demand. In fact, some systems are not used at all in the winter.

Winter is the time to perform the maintenance you couldn't do in the summer because the system was needed. What you do depends on whether or not the tower is down for the winter.

Since demand on the tower and condenser system is less in the winter, it's an ideal time to schedule a cleanup. Pressure wash all accumulated dirt and biofouling from the inside of the tower, baffles and distribution decks. If the condenser water is discolored or cloudy, drain and purge the system using a product specifically designed for this purpose.

If the condenser system is not needed until spring, it can be left dry over the winter. Temporary covers placed over the openings in the tower prevent dust and debris from entering. If the chilled water system is not to be circulated, ensure that inhibitor concentrations are on the high side of normal range.

For systems that require year round condenser operation, the system should be refilled and immediately charged with scale and corrosion

inhibitor according to published start-up procedure. Protect against biological activity by adding appropriate micro biocides weekly.

HVAC systems employing heat pumps and hydronic loops are needed all year round. Since very little evaporation is taking place, scaling is not a problem. It is vital, however, to ensure that the system is protected against corrosion.

It is not sufficient to just have the correct amount of corrosion inhibitor in the system; it must also be circulated frequently to ensure that fresh inhibitor is supplied to all parts of the system. This is because the concentration of inhibitor decreases in areas where corrosion is active. To make up for this, it is necessary to provide a fresh supply from the bulk liquid.

The condenser pumps should be programmed to run at least five minutes twice per day to provide circulation, or the pumps can be manually run for this same period. Bear in mind that a static system is more prone to the growth of anaerobic bacteria which could result in serious pitting attack on system metals. Frequent circulation and regular biocide additions are the best insurance against this type of corrosion.

Even in a mild climate one should be prepared for the possibility of a freeze up which could damage valves, pipes and other outside

equipment. Either arrange for the system to circulate continuously during these "cold snaps" or use insulation or heat tracing to protect exposed equipment.

Remember that the pollination season for conifers may start in January and there will be a lot of nutrients in the air. So whether you have a year round or a seasonal system, make sure the tower system has good micro biocide levels before and during the onset of pollination.

Tower and Condenser System Fall Checklist:

1. Clean the system.
2. Recharge with inhibitors and biocides (or leave dry)
3. Circulate system at least twice per day.
4. Protect from freezing, and
5. Prepare for springtime pollination season.

Contact your local Watcon, Inc. representative for information on how to protect your particular system.

WATCON INC

