



## COOLING TOWER WET LAY-UP

### Wet cooling tower lay-up:

1. Turn off the chemical or acid feed pumps. Also stop feeding any chlorine or bromine to the system.
2. Increase bleed-off in the cooling system until the conductivity of the cooling tower water matches the conductivity of the make-up water. If you are feeding chlorine or bromine, make sure free chlorine or bromine is equal to or less than that found in the make-up water.
3. Add **BOND** nitrite product such as 5010 to the cooling water system until you reach 1000 to 1500 PPM nitrite (as NO<sub>2</sub>).
4. If necessary, add Soda Ash until "M" Alkalinity reaches 500 PPM.
5. Add one (1) gallon of **BOND** 8080 per 1000 gallons of system capacity or as recommended by your **BOND** representative. Do not add chlorine or bromine because this will deactivate the nitrite product you just added.
6. Keep recirculating pumps running for 24 to 48 hours while maintaining nitrite levels with chemical feed. Unless absolutely necessary, do not run the cooling tower fan while you are recirculating the chemical through the system, because the extra oxygen added to the system with the fan will deactivate more of the nitrite chemical.
7. Turn off the recirculating pump. Make sure piping and or cooling towers are protected against cold with heat taping. In addition to the above chemicals, you may add glycol for freeze protection.
8. Turn on recirculating pumps once a week for one (1) hour and add 32 ounces of **BOND** 8080 per 1000 gallons of system capacity or as recommended by your **BOND** representative. While the system is circulating, check the system for nitrite and alkalinity. Add **BOND** 5010 and soda ash to maintain correct levels.
9. When you are ready to use the system again, bleed-off the system until the conductivity matches that of the make-up water, nitrite is less than 40 PPM, and start feeding your cooling water chemical again.

Caution:

Without proper wet lay-up procedure, corrosion can occur during the time that the cooling system is off. Most of the corrosion will occur on the mild steel portions of the system. Some bacteria induced pitting corrosion can occur in all parts of the system.

Additional Information:

Ideally, cooling water systems should be stored dry when not in use over one (1) month. However, some systems are left in wet storage as back-up systems or for winter month storage.

The reason for proper chemical treatment during a wet lay-up of your cooling system is to prevent corrosion. It is possible to have a well controlled chemical treatment program during the summer, but during the winter corrosion may occur in the system due to inadequate lay-up protection.

Use the wet lay-up only if the system needs to be brought up to operation periodically during the lay-up period. The dry lay-up procedure is preferred if the system does not need to be brought on line rapidly.