

# DISINFECTION PROCEDURE

## Evaporative Cooling Systems

Disinfection helps to eliminate microbial contamination in cooling towers, fluid coolers and evaporative condensers, and is regarded as an industry best practice. A disinfection should be completed:

- When commissioning a new evaporative system
- Before and after shut down periods greater than 4 weeks
- Twice per year in the spring and fall, as recommended industry best practices
- When test results indicate the presence of high levels of Legionella bacteria (please consult AquaAnalytics Legionella Testing Action Plan)
- As required if inspection has indicated the presence of biofilm or accumulation of particulate
- When Legionnaires' disease is known or suspected (please consult your representative)



The following procedure is based on **Legionella 2003: "An Update and Statement by the Association of Water Technologies"**.

1. Shut off cooling tower fans.
2. Keep makeup water valves open and the circulation pumps operating.
3. Close outdoor air intake vents located within 30 meters of the cooling tower.
4. Use the DK-12000 Disinfection Kit as instructed on product packaging to achieve an initial free residual chlorine (FRC) level of  $\geq 50$ ppm. Consult your Water Treatment Representative for further details.
5. Maintain a minimum of 10 ppm FRC for 24 hours.
6. Drain and refill the system. Repeat steps 4 to 5 at least once to remove all visible algae-like film.
7. Using a brush and water hose, thoroughly clean all water-contact areas, including the basin, sump, fill, spray nozzles, and fittings.
8. Circulate 10 ppm FRC for one hour, and then flush the system until free of all sediment.
9. Refill the system with clean water and return to service, establishing normal water quality parameters.

