



Water Treatment

Understanding the maintenance and application of the water treatment chemicals is fundamental in ensuring the safe and reliable operation of a chiller plant. This Water Treatment class will provide the student with the fundamental site specific information the historical problems that can occur within a chilled water operations and the implementation of a comprehensive water treatment program to minimize those problems.

A review of water testing protocol and chemical safety will be included in this program.

Duration: 4 or 8 Hour Program

WATER CHEMISTRY

Water Analysis
Total Hardness

SCALE/DEPOSITION

Boiler System Scales
Cooling System Scales

CORROSION

General
Crevasse
Cavitations
Pitting
Erosion
Galvanic
Corrosion vs. PH

MICRO-BIO FOULING

Iron
Algae
Slime
Sessile
Legionella
Chlorine vs. Bromine

COOLING SYSTEMS

Water/Heat Transfer
Closed
Open

EQUIPMENT

Design and Application
Cooling Tower Terms
Approach and Range
PEP Sidestream Filters
Basin Sweepers

PROGRAM MONITORING

U-Coefficients
Approach Temperatures
Terminal Temperatures
Pressure Drop ("C" Factor)
Water Treatment Concerns
Treatment Program

CHILLER EFFICIENCY

Monitoring and Control