

WCTI Prospect Survey for Cooling Water Treatment Assessment

Prospect or Company	
Facility Location (City, State):	
Cooling System Name:	

Makeup Water Quality Information:

Makeup Source-- City, Well, Recycled, other:			
Total Hardness		Silica	
TDS		(or) *Conductivity	
Turbidity or SS		Total Alkalinity	
Fe, Mn, other pH			

Cooling Tower Evaporation Loads, Operation, Water Costs:

Design Evaporation Capacity, GPM	
(or) Design Evaporation Capacity, Tons	
Tons Peak Evaporation Load, GPM	
or) Peak Evaporation load, Tons	
Average Evaporation Load, GPM	
(or) Average Evaporation Load, Tons	
Tons Annual tower makeup (gallons)	
Annual tower blowdown, Gal.	
Electrical Cost, \$/kWh	
Current Water Source Cost / 1000 Gal.	
Sewer Discharge Cost / 1000 Gal.	
Lower cost water source Cost / 1000 Gal.	
Days/Year Tower Operation	
Hours/Day Tower Operation	
Other comments:	

Current Tower Operation Control / Treatment:

*Tower Concentrations (COC)	
(or) *Blowdown Conductivity Max Control Limit `	
Program Cost, Annual (All towers included)	
Is acid / pH Control Used?	

Types of Cooling Equipment: (Check all that apply)

	Y	N	How many		Y	N	How many
Crossflow Tower				Shell & Tube			
Counter-Flow Tower				Plate & Frame			
Evaporative Condenser				Heat Exchanger Only			
Fluid Cooler				Chiller Compressor			
Other (Describe)							

Tower Equipment Manufacturer:

	How Many		How Many		How Many
Marley		Evapco		BAC	
Other (Manufact. Name and How Many):					

Tower Equipment & Operational Status:

	Y	N	Efficiency		Other
			<0.003%	<0.001%	%Efficiency
Drift Eliminators					
Backflow Preventers on Pump Discharge					
Cooling Tower Basin Leaking Seams					
Side-Stream or Sweep Sys. Return to CT					
Side-Stream or Sweep Sys.-Describe					
Cooling Tower Construction (SS, Galv., Comp.)					
Cooling Tower Basin Vol. (gallons)					
or Basin Dimensions (LxWxD)					

Plate & Frame Heat Exchanger Information:

Manufacturer		Model No.	
BTU/Hr. Capacity		Design Cold Flow GPM	
Average Cold Flow GPM		Lowest Cod Flow GPM	
Freq. of Cleaning by Removing Plates:		Freq. by Chemical Flush:	
Months Operated Each Yr.			
Inlet / Outlet Pressure (When Clean) PSI:			
Inlet / Outlet Pressure (Current Operation) PSI:			

Potential Issues / Problem History: (Check those applicable)

<input type="checkbox"/>	Limitations / restrictions for water supply or discharge.
<input type="checkbox"/>	High / increasing water and/or discharge water costs.
<input type="checkbox"/>	Water quality issues due to high hardness, silica, TDS
<input type="checkbox"/>	Want to use recycled / recovered wastewater in cooling tower.
<input type="checkbox"/>	Corrosion issues with cooling water system metals.
<input type="checkbox"/>	Scale formation issues and heat transfer efficiency losses.
<input type="checkbox"/>	Biological fouling issues / heat transfer loss / pathogen issues.
<input type="checkbox"/>	Desire to eliminate chemical handling and storage.
<input type="checkbox"/>	Plate & Frame Heat Exchanger Fouling.
<input type="checkbox"/>	THERMAL STORAGE INSTALLATION

- Notes:**
- 1 The fastest way to restore heat transfer efficiency for scaled equipment is chemical or mechanical cleaning. Cleaning also averts chip scale blockage of pump screens.
 - 2 Circulating soft water through the system will slowly clean up the system. However, leaving scale in place delays heat transfer restoration, and scale chips break off and migrate to tower basins and often block pump intake screens. It also delays reaching High COC performance benefits as hardness dissolution requires blowdown.