



# PROWATER COOLING TOWER PRE-CLEAN INSPECTION REPORT

Site:

Location:

Engineer:

Date:

<b>Owner's Tower Designation</b>				
<b>Tower Manufacturer</b>				
<b>Model No.</b>			<b>Serial No.</b>	
<b>Tower Type</b>				
Evaporative Condensor			Cooling Tower	
Forced Draught Crossflow			Forced Draught Counterflow	
Induced Draught Crossflow			Induced Draught Counterflow	
<b>Safe Access To Examine/Clean All Areas</b>				
<b>Structure</b>	<b>Present/ Material</b>	<b>Condition Good-Poor</b>	<b>Informative Comments</b>	
<b>Tower Structure</b>				
External Casing				
Internal Casing				
Sump External				
Sump Internal				
Access Panels				
Access Panel Seals				
Fixed Ladders				
Work Platforms				
<b>Distribution</b>				
Distribution Manifold				
Spray Nozzles				
<b>Louvres/Drift Eliminators</b>				
Drift Eliminators				
Drift Removable	Yes/No			
Intake Louvres				
Louvres Removable	Yes/No			
<b>Cooling Fans</b>				
Fan Housing				
Fan				
<b>Fill Pack</b>				
Condenser Tubes				
Fill Pack Condition				
Fill Pack Removable	Yes/No			
Fill Pack Cleanliness	Scale			
	Biofilm			
<b>Internal and External Contaminants</b>				
Debris				
Algae				
Biofilm/Slime				
Corrosion				
<b>Surrounding Area</b>				
Flooring				
Debris/Vegetation				
<b>Additional Informative Comments</b>				

Prowater Sign: \_\_\_\_\_

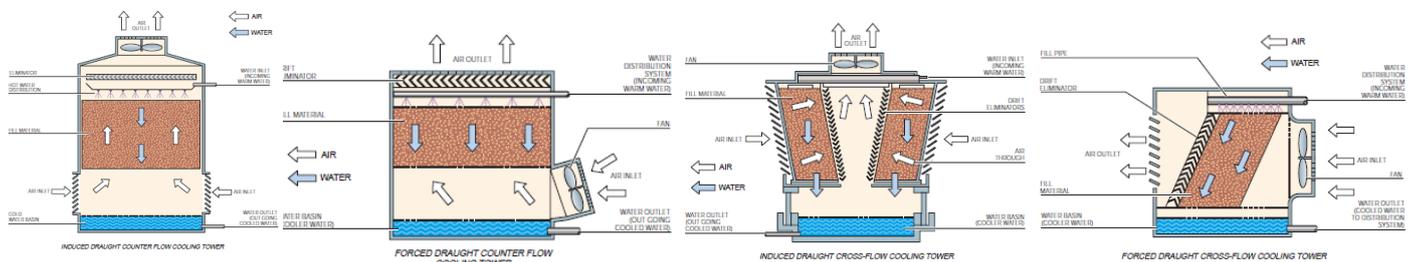
Prowater Print: \_\_\_\_\_

Client Sign: \_\_\_\_\_

Client Print: \_\_\_\_\_

## Guidance Notes

1. Sign into site and obtain necessary permits to work
2. Perform full risk assessment of the area around the system to be inspected. Examination of parts may require entry into the cooling tower and as such precautions for entering a confined space should be used.
  - a. Ensure the cooling tower is electrically isolated and properly locked off with a Prowater lock off key.
  - b. Use a gas monitor to ensure the area is and remains safe for working
  - c. Wear all PPE appropriate to the job, such as hard hat, boots, eye protection and gloves. If in doubt about what PPE to use please refer to your line manager.
  - d. Ensure there is adequate provision for safe egress in the event of an accident. If necessary a pulley/winch system should be put in place and a harness worn by the person entering the area.
  - e. Do not enter an area if you do not consider it safe to do so.
3. Examine the cooling tower thoroughly, inspecting all parts and complete the form with as much detail as possible.
4. Ensure that the designation given to the cooling tower is that of the site as this may otherwise lead to confusion
5. Determine the type of cooling tower using the diagrams below.



6. Examine the main body and sump of the cooling tower. Ensure the material of the cooling tower parts are documented and detail the condition of parts in a thorough way. If for example there is bad corrosion to the sump then detail this and also detail the position of the corrosion, i.e. "Bad pitting corrosion to left front corner of sump".
7. Take off access panels and detail condition of hatches and also seals.
8. Examine the distribution system for condition and blockages and note any problems with the distribution or spray nozzles. All spray nozzles should be checked for operation and blockages and note made of any damaged or blocked nozzles. Ideally these will be replaced.
9. Remove, where possible, and inspect all drift eliminator modules and side intake louvers. Make note of any damaged modules and any modules that are becoming brittle or are scaled and dirty. Where pack and drift modules are a single block make a note of what can be seen and if possible use a borescope to examine the internal condition of the bundle.
10. Where possible remove pack modules and examine them closely for scale and biofilm contamination. Examine them also for damage and make a note of any modules that are becoming brittle. Where packing cannot be removed it is vital to use a borescope to examine the pack in at least 9 different places. These should be: Top left, top middle, top right, centre left, center middle and centre right, bottom left, bottom middle, bottom right. Photographs should be taken and a detailed description of contamination and condition should be written.
11. Document any physical contamination within or upon the cooling tower such as algae and slime. Document the position of the contamination.
12. Examine and document the condition and cleanliness of the surrounding area of the cooling tower.