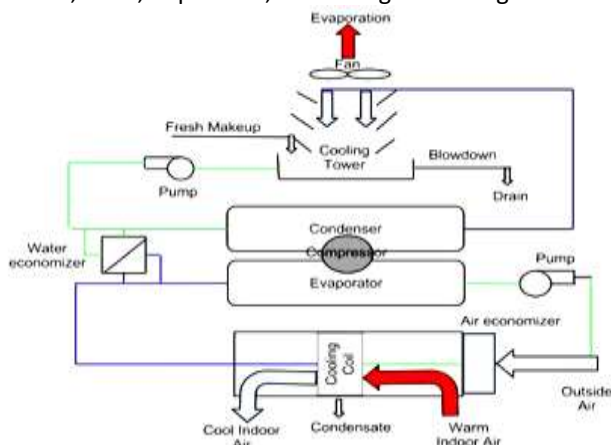


**Just-Chemicals.com Presents 3 Hours training on  
“How to get the best out of the Cooling water Treatment?”**

**Introduction**

This training has been developed to assist facility managers with the operation of their cooling water systems and to improve their understanding of the water with the goal of reducing water and chemical consumption of the cooling systems through improved operations and monitoring. Evaporative cooling towers are very popular as they provide the most cost-effective cooling technology for condenser cooling, commercial air conditioning and industrial processes. In spite of these concerns, treatment and control of cooling tower water is commonly neglected, which is then responsible for substantial problems due to downtime, equipment damage, loss of process control and high-water use. This training is intended to provide the cooling water user with a knowledge of cooling water management so that problems resulting from corrosion, scale, deposition, and biological fouling can be avoided.



**The training seminar will feature:**

- Water Chemistry and understanding the propensity of scale and corrosion
- Overview of Heat Transfer monitoring across heat exchanger/condenser and understanding the effect of deposit or scale formation
- Heat Transfer monitoring across cooling tower
- What to monitor, what should be the KPI or leading indicators for to understand efficiency of heat transfer systems
- Reaching higher COC to save water and chemicals

**Training Methodology**

This training seminar will be conducted online for 3 hours with 30 minutes question and answer session with formal lectures. A telegram group will be formed to support delegates for 1 year on this subject.

**Objectives**

**By the end of this training seminar, the participants will be able to:**

1. Identify leading indicators of heat transfer inhibition and can take proactive action to avoid costly shutdowns or equipment failures, and the impact on plant reliability
2. Understand the cost-effectiveness of Preventive/Predictive Maintenance program through chemistry applications
3. Apply techniques of optimisation of water consumption
4. Make the important decision on the basis of the cost and benefit analysis
5. Create monitoring systems with trending to assess the cooling water treatment

**Organizational Impact**

On completion of this seminar the delegates will be able to analyze the operation and maintenance of various dynamics within the cooling water system and water chemistry and suggest potential improvement in saving water, cost of chemicals and most importantly life of equipment.

**The knowledge gained in this seminar will:**

1. Enable the delegates to optimize the fuel consumptions in Condenser or any heat exchanger are directly impacting energy consumption.
2. Give the delegates skill to analyze efficiency and effectiveness of cooling water systems and heat exchangers
3. Reduce Corrosion, biofouling/algae or scale formation in cooling water system
4. Give better insight to the increase life of heat exchangers
5. Avoid downtime of production due to scale corrosion or bio-fouling

**Personal Impact**

1. Better understanding of how optimized the circulating water treatment
2. Better knowledge of mass transfer and heat transfer
3. Improved personal skills of taking proactive action
4. Better ability to troubleshoot difficult situations

**Who Should Attend?**

This training seminar is suitable to a wide range of professionals but will greatly benefit:

1. Operation, technical production & service professionals
2. Technicians dealing with regulating and metering and other measurements
3. Water Chemistry / Power Plant Chemistry professionals

**Agenda**

- Cooling Tower Operations Calculations
- Cooling Water Systems, Typical Cooling Towers Components
- Measuring Performance
- Operation
- Relationship between Makeup, Blowdown, Evaporation and Drift
- Relationship Between Cycles of Concentration and Makeup Demand
- Water Treatment Requirements
- Monitoring Your System
- Water Quality - Water chemistry control
- System Concerns
- Stability indices calculator, what, when and how to use them
- Understanding corrosion and scale formation
- Water management program requirements
- Obtain maximum energy efficiency and equipment life by minimizing problems due to corrosion, scale, deposition, and biological growth
- Operator attention
- Corrosion
- Corrosion monitoring
- Corrosion inhibitor chemistry
- Scale - Chemical scale inhibitors
- Biological fouling, MIC and biocides

**Expert Profile Mr. S Banerjee** – Mr. S Banerjee is a seasoned power plant Chemistry and water treatment professional with in-hand experience of about 25 yrs after passing M.Sc. Applied Chemistry from Government Engineering College, Jabalpur in 1995. He has worked with India's Pioneer Water Treatment Company and with Giant Private Power Generators in India viz. Tata Power, Adani Power, Jindal Power, LPGCL as HOD Power Station Chemistry and Environment. He has both experiences of sub critical and super critical power plants, commissioning-O&M and troubleshooting of water treatment plants, boiler water, cooling water, stator water and waste water. He was also associated with a reputed Institute of Power Technology as a faculty on Water treatment and Power Plant Chemistry. He has presented many papers on water treatment, power plant chemistry and water management in national seminars and magazines and also **written an academic text book titled – Practical Guide to power Station Chemistry. Trained about 1500 delegates in different subtopics of power plant chemistry and water treatment.**

**For Registration: connect Mr. S Banerjee on 7985635683/9907203621/[sbanerjee@just-chemicals.com](mailto:sbanerjee@just-chemicals.com)**

**Delegate Fee includes: Training documents and video**