



“Online Learning Sessions On Basic Concepts and Challenges in HVAC Cooling Water Treatment”

Expert Speaker: Mr. Ahmed Parkar – Industrial Water Auditor & Water Treatment Specialist

**Webinar Dates: Tuesday & Wednesday – 24th & 25th August 2021 | Time:3 PM
| Duration:1 Hr. 30 Min. On Each Day**

About Webinar: -

When water is supplied to HVAC Open condenser and Closed Chilled Water Systems, it tends to promote various problems such as Corrosion, Scale Formation, Biological and Micro-Biological Fouling and Deposit Formation. These problems lead to either leakages and/or inefficient operation of the system due to reduction in heat transfer across the heat exchangers and demand frequent bleeding of water from the system (high blown rate) or unscheduled shut-down to clean the system.

It therefore becomes absolutely necessary to appropriately treat water supplied to HVAC to ensure that the systems operate optimally without unnecessary dissipation of Water & Energy so that HVAC systems are protected against various problems and down times are reduced and production losses are avoided.

Webinar Coverage: -

Webinar coverage includes the basic concepts, terminologies, water quality, how to understand specifications (if at all laid down in the Tender Document) and how to estimate the water treatment cost by appropriately considering the cost of required chemical dosing systems (Automatic / Semi-Automatic / Manual). Identify if any additional equipment is required such as Side Stream Filter, Softener or Pre-Treatment System to be on the safer side and not run into trouble of under costing at tender stage. Webinar also includes the need for understanding of treatment specifications for Project & Purchase Engineers to ensure that the vendors submitting proposals have not deviated widely and the proposals with proper

compliance are received which can be compared technically & commercially so that the decision making process becomes easy.

Key Learning: Day – 1 (24.08.2021 at: 15:00 Hrs)

- What is PPM and Difference between PPM and Mg/lit, TDS, pH, C.O.C.?
- Different Type of Impurities: Suspended and Dissolved Impurities including Gaseous Impurities.
- General Specifications for Manual & Automatic Dosing Systems and Other equipments such as Side Stream Filter & Pre-Treatment equipments.
- What is Blow down, Automatic Bleed and Feed System including pH Monitoring?
- What is Pre-cleaning and passivation?
- How to Understand Specifications and Looping & isolation of major equipments and Hold-up Volume of the System?
- How to Estimate the water treatment cost and how to include necessary equipment even if the specifications are not with adequate clarity and be on the safer side while estimating the cost?
- Make proper comparison of technical & commercial proposals, who is offering what, understand properly and then short list by bringing at Par (in terms of size, quantity and coverage to requirement and /or specs).

Key Learnings: Day – 02 (25.08.2021)

- How to go about Installation of various chosen/supplied equipments: Manual or Automatic Dosing Systems and Other equipments such as Side Stream Filter & Pre-Treatment equipments?
- What is Blow down & it's location and why?
- How these equipment work: Manual & Automatic Dosing, Feed System, Side stream Filters and Softeners (if installed)?
- How to go about Pre-Cleaning, Flushing and Passivation and Start-up. How to do Looping and isolation of main equipments?
- How the impurities such as dissolved Solids, suspended solids, Biological & Microbial fouling, Hardness and Silica causes Problems in Cooling Systems (Condenser and chilled Water Systems)?
- How to Understand Energy & Water losses and Conserve them to achieve the objectives?
- Monitoring and servicing – Daily Check-up, Fortnightly/Monthly Check-up

Speaker Profile: -

Mr. Ahmed Parkar is Chemistry Graduate and a Mechanical Engineer, trained by Drew Chemical Corporation USA and Nalco Italiana; the world's well known Water Treatment Companies. Mr. Parker has about 45 years of experience in the industrial water treatment & audit field and an extensive hands-on experience in the larger sector of Industries located in the Middle Eastern Region and Indian subcontinent.