

LEARN HOW CONDENSERS REALLY WORK!

- ✓ Understand the root causes for poor condenser performance
- ✓ Identify equipment failure
- ✓ Manage back pressure
- ✓ Assess vacuum quality
- ✓ Quantify cooling water flow & fouling
- ✓ Understand why design has reduced plant performance potential
- ✓ Differentiate fouling due to biological growth, scaling, or debris
- ✓ Observe the latest results of Intek designed and implemented condenser retrofits on back pressure and chemistry

LEARN FROM THE RESULTS ORIENTED EXPERTS

- 👉 How dissolved oxygen, corrosion and condenser pressure are affected by air binding, air in-leakage, and inadequate air removal
- 👉 How to interpret *RheoVac* data, *Rheotherm* circulating water flow and fouling meter (CWFF) data, and plant data for identifying deficiencies in condenser design
- 👉 How to measure exhauster capacity and performance
- 👉 How to measure and assess the threshold above which air in-leakage affects performance
- 👉 How to maintain zero excess back pressure
- 👉 How to use the new Intek designed tube sheet “Mapper”

WHO SHOULD ATTEND

- **Managers**
- **Engineers**
- **Chemists**
- **Operators**

Anyone responsible for reducing forced outages, heat rate, corrosion, emissions, or improving condenser performance will benefit from participation in this workshop.

Scientists, engineers, and technically experienced personnel at Intek developed this program to provide insight into the complex dynamics of condensers and the root causes of issues that affect condenser performance. You will learn new methods and measurements to more easily diagnose the causes of problems, how to take appropriate corrective actions, and when to use outside services to improve performance, save time, effort and money for your company.

Case studies, using real data from a large number of power plants, will be used to illustrate how you can make decisions that have an immediate impact on the bottom line.

WORKSHOP AGENDA

- **Theory of Steam Surface Condense**
- **Condenser Performance Assessment**
- **Diagnostics with Basic & Advanced Instrument Data**
- **Case Studies**
- **Impact of Configuration Deficiencies**

1 CEU credit from *The Ohio State University*

WHAT DID PAST ATTENDEES SAY?

“I gained valuable knowledge that I had never been exposed to in 30 years of plant work.”

Paul Licht – MidAmerican Energy

“I came to this workshop with a certain amount of knowledge based on hear say. This workshop helped me to determine which things that I had learned were true and which were false. I was also surprised by how much the things that I learned made sense. I am looking forward to getting back to the plant and implementing the things that I have learned.”

Stan Minter – American Electric Power

“Excellent insight into condenser operation and troubleshooting. Good forum to share operational experiences.”

Kelly Callfas - Bruce Power

“The explanation of back pressure versus water vapor-to-air mass ratio measurement was educational. It tied in well with our Fe/Cu transport issues when air in-leakage and hydrazine concentrations were high.”

Lee Shubert – Omaha Public Power

“Great understanding of troubleshooting. Could save us potentially several days of outage.”

Jim Grunloh – Ameren

