Technical Automation Services Company

PRESENTS

Troubleshooting Sample Systems

TASC—Technical Automation Services Corporation

We specialize in Analyzer Systems Integration, Technical Services & Support, Training and Environmental Consulting & Testing . Since 1990, we have been providing quality products, personnel and services to our Customers.

2012
TASC
2000 NASA Parkway
Seabrook, TX 77586
Tel No. 281-474-3232
$895.00 per person
Lunch provided each day

The Program

As process analyzers become more vital for the control of process optimization, the effective training of engineers and technicians is mandatory. Process analyzers will not achieve the availability needed for advanced control unless instrument engineers are trained in the design requirements for reliable analyzer systems and maintenance technicians are trained to service them.

During the two day class we will cover in detail; Criteria for Successful Sampling, Sample Tap Location, Time Delay Issues, Troubleshooting the Sampling Train, Sample Conditioning & Switching.

Instruction is by lecture and by individual & team exercises. Each student will receive a workbook with copies of the presentation materials and many practical class exercises. Students learn from what they hear, but more from what they do. They also learn by working with others who come to the class with different backgrounds and experiences.

THE INSTRUCTOR

Tony Waters has 42 years experience with process gas chromatographs and other analyzers. He has founded three companies to provide specialized analyzer services to the process industries and is an expert in the application of process analyzers in refineries and chemical plants.

Tony developed these training courses from his long experience in the field. His presentations are always popular, and have equal appeal with engineers and maintenance technicians. The seminar has been presented in Australia and in many of the countries of Asia, Europe, Middle East, North America and South America.

ACE
Analyzer Consulting Engineers, LLC

For more information or to register please contact : Michelle Lee

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(281) 474-3232 (281) 474-3211 fax

WHO SHOULD ATTEND?

Process Analyzer Maintenance Technicians

Plant Analyzer Engineers & Chemists

Instrumentation Engineers

Analyzer System Design Personnel

Analyzer Sales Engineers

Troubleshooting Sampling Systems

Troubleshooting Sampling Systems

2012

This very popular class provides a detailed understanding of process sampling for engineers, analyzer technicians, and plant chemists. Ultimately, all troubleshooting comes down to correcting errors in design. Students see how to diagnose and avoid errors, thus maintaining a single phase and avoiding contamination during conditioning or stream switching.

Design Objectives

- Three essential requirements
- Why it is difficult to achieve them
- Some common issues to avoid

Sample Extraction & Transport

- Evaluate the process tap location!
- Probe types and uses
- Sample transport systems
- How to calculate d/v lag in lines
- How to estimate delay in vessels

Phase Preservation

- How to avoid or cause condensation
- Vaporization is difficult! How to avoid time delay or fractionation
- The need for proper sequence

Sampling Hardware

- Various filters & coalescers
- Vaporizers & separators
- Permeation devices

Multi-stream Switching

- How to eliminate dead legs
- How to avoid cross-contamination
- Student troubleshooting exercise
- Six "rules" for success