Flow and Level Custody Measurement - IC-73

COURSE

About the Course

This course is designed to acquaint users with the problems and solutions for high accuracy transfer of liquid and gas petroleum products from supplier to customer. These needs have been brought about by major changes in manufacturing processes and because of several dramatic circumstantial changes such as: the increase in the cost of fuel and raw materials; the need to minimize pollution; and the increasing pressures being brought to bear to adhere to the requirements for health and safety.

"This was an excellent course. Excellent instructor and he did a great job." - Participant, Canada

Target Audience

This workshop is specifically tailored for any personnel who are, or will be, responsible for designing, selecting, sizing, specifying, installing, testing, operating, and maintaining instrumentation related to the field of custody level and flow transfer measurement. This could include facilities, process, chemical, electrical, instrumentation, maintenance, and mechanical engineers and technicians.

You Will Learn

Participants will learn how to:

- Recall the basics of fluid mechanics
- Identify the fundamental problems related to uncertainty
- Compare the different methods of measuring flow in the oil and gas industries
- Describe the various methods of level measurement
- Compare the different methods used to derive strapping tables
- Evaluate the different custody transfer standards in use today
- Contrast the methods used in flow calibration
- Identify the different types of prover systems
- Explain the methodology used in truck custody transfer
- Examine the challenges regarding pipelines
- Describe the basics of leak detection
- Analyze the methodology for monitoring and controlling production losses
- Evaluate and compare the problems and solutions associated with the measurement of NGL, LPG, and LNG

Course Content

- Fluid mechanics
- Flowmeter classification
- Uncertainty analysis
- Flow measurement
- Turbine
- Positive displacement
- Ultrasonic flowmeters
- Coriolis mass flowmeters
- Level measurement
- Buoyancy tape systems
- Hydrostatic pressure
- Ultrasonic measurement
- Radar measurement
- Flow calibration
- Terminal custody transfer
- Tank management systems
- Lease automatic custody transfer
- Truck and rail custody transfer
- Pipeline considerations
- Fugitive emissions
- Leak detection
- Real time transient model
- Loss control systems
- Custody transfer sampling
- Monitoring and controlling production losses
- Physical leaks
- Meter prover performance
- API standards
- Measuring the suspended S&W content
- Calculating net volume
- Flowmeter selection and costs
- Initial considerations
- Meter selection
- Properties and measurement of NGL, LPG, and LNG

Product Details

Categories: Midstream

Disciplines: Instrumentation, Controls & Electrical

Levels: Intermediate

Product Type: Course

Formats Available: In-Classroom

Instructors: Jason Pingenot Rodney Jacobs

In-Classroom Format

7 Oct '24 11 Oct '24 -	Course	In-Classroom (in Houston)	$4,810.00

Virtual Format

15 Jul '24 26 Jul '24 -	Course	Virtual (Houston UTC)	$4,170.00