



IE241: Custody and Allocation Metering

Training Description:

The smallest error in the flow measurement of materials like oil, gas, or chemicals being transferred between a producer (supplier) and customer may cost a company millions of dollars in a year. Custody Transfer takes place any time fluids are changing possession from one party to another e.g., from producer to pipeline, pipeline to plant, or pipeline to storage facility. Custody Transfer refers to any agreed metering condition in a sales contract between supplier while Fiscal Metering refers to metering of a commercial transaction that should comply with legal obligations and so in this case there is no discussion about the metering requirements.

The custody transfer system must generate detailed and indisputable cargo reports, based on accurate flow measurements and standardized calculations. Custody and Fiscal transfer systems are more than just flow-meters and they represent a combination of highly engineered flow measurement systems for the intended application. Custody and Fiscal transfer metering required exceptional accuracy, repeatability while the applied methods and measuring result are auditable. Requirements for permissible errors of custody transfer meters are recommended in International Standards like AGA, OIML and ISO.

Training Objectives:

This intensive training course introduces participants to a variety of flow measurement technologies that are used in custody transfer applications while the objective is to gain an understanding about how to achieve the requirements by means of differential pressure (DP) measurement, Turbine meters, Positive displacement meters, Coriolis flow measurement, Magnetic and Ultrasonic flow measurement.

Training Designed for:

This course is intended for all site personnel not limited to Instrument Technicians or Supervisory Engineers, Process engineers, Production engineers, Operators and Control room personnel dealing with fiscal, custody transfer and allocation flow metering.

Training Program:

DAY ONE:

- ❖ Pre-Test
- ❖ Introduction
- ❖ Utilities required for fiscal flow metering
- ❖ The aim of Loss Control
- ❖ Fiscal metering station
- ❖ Fluid Dynamics – Liquids and Gases
- ❖ Recap

DAY TWO:

- ❖ Energy conservation according to Bernoulli's Law
- ❖ The types of Flow Patterns and influence on flow measurements
- ❖ Flow measurement based on ΔP measurement
- ❖ Flow meters for Oil & Gas: Turbine, Positive Displacement, Thermal Mass, Coriolis, Ultra Sonic, Vortex and EMF meter
- ❖ Recap



DAY THREE:

- ❖ OIML classification of metering devices and recommendations for fiscal metering
- ❖ Applied Accuracy Terminology and manufacturer specification
- ❖ Applied Custody & Fiscal Metering contracts
- ❖ Moisture and HC Dew-point measurements
- ❖ Recap

DAY FOUR:

- ❖ Application of Process Gas Chromatography
- ❖ Heating Value Measurements
- ❖ Flow meter Calibration
- ❖ Proving and Validation
- ❖ Recap

DAY FIVE:

- ❖ Flow computer dedicated functions
- ❖ Application of International Metering Standards for Oil & Gas
- ❖ Multiphase Flow and Water Cut measurements
- ❖ Course Conclusion
- ❖ Post-Test and Evaluation

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

This training course is available upon request in English or Arabic. Content, location and duration can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant’s manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.



Team Training Discount—If you're registering with a company colleague (or two or more) at the same time, you can save an additional 20%. (The 20% discount applies only to two or more participants taking the same course and does not apply to two participants taking separate courses.)

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

For training registrations or in-house enquiries, please contact:

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Training & Career Development Department