AN ENERACT COMPANY

Curriculum

Back-Office Gas Measurement Fundamentals

3 Days

I. *Measurement Governance*

A. Regulations
B. Contracts
C. Industry Standards: AGA – GPA – API
D. Standard Operating Procedures (SOPs)

II. *Gas Chemistry and Physical Properties*

III. *Units of Measurement and Conversions*

A. Base Conditions
B. Heating Valve
C. Mass

IV. *Volume Calculation & Meter Types*

A. Orifice Meters (AGA-3)
B. Linear Meters (AGA-7)
C. Ultrasonic Meters (AGA-9)
D. Coriolis Meters (AGA-11)

V. *Flow Computers and Data Requirements*

A. Flow Computers
B. Importing Flow Computer Data
C. The API 21.1 Quantity Transaction Record (QTR)
D. Missing Data

VI. *Measurement Field Procedures & Field Reports*

VII. *Measurement Software Systems Overview*

A. Spreadsheets vs flow computer vendor vs Enterprise level systems
B. Common Tasks – Editing & Missing data
C. Third-Party Data

VIII. *Gas Volumes - Recalculation & Validation*

A. Manually Entered Volumes
B. Summarization and Passthrough vs Recalculation
C. Minimum Data Requirements
D. Data Timing Requirements

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IX. *Gas Quality & Gas Analysis Validation*

A. Methods of Analysis
B. Sampling & Sample Schedule Requirements
C. Importing and applying analysis data
D. Analysis Validations
E. Water Vapor
F. GPM calculations & Component Balancing

X. *Balances – An Overview*

A. Defining System Balance Goals
B. Assembling the information to design the Balance
C. Comparison Balances (Check – Custody Meter Pairs)

XI. *How Contracts and Tariffs relate to Measurement*

XII. *Reports from the Field*

A. New Meter Configuration Reports
B. Calibration Reports
C. Witnessing Reports

XIII. *Analyst Workflow*

A. Streamlining workflow
B. Pre-Close
C. Closing Duties

XIV. *Processing Prior Period Adjustments (PPAs)*

A. Is a PPA warranted?
B. Processing a PPA
C. Contracts/Tariff vs Policy Reducing PPAs

XV. *Audits*

A. Audit Types
B. Preparation
C. The Audit Response