



Course length: One day

Prerequisites: None

CPE credits: 8

A non-technical overview of the natural gas delivery system

Natural gas is an increasingly important piece of our overall energy supply both as a consumer fuel and as a fuel for electricity generation. At the same time, issues concerning safety and new infrastructure needs are arising. Gas System Fundamentals: From Production to the Meter – Condensed version presents a high-level overview of the natural gas physical system from production through customer meter and is ideal for those new to the industry as well as veterans who were never fully exposed to the physical aspects of the gas business.



WHO WILL BENEFIT FROM THIS SEMINAR?

- New hires working for a utility, gas marketing company, pipeline, production company, startup, or any company providing services to the gas industry
- Employees with industry experience in business areas who need a better understanding of the physical system
- Engineers, operators, and field personnel new to natural gas utilities or pipelines
- Industry employees with customer contact, sales, or marketing responsibilities
- Regulatory employees who need to understand physical system opportunities and constraints
- Professionals in the legal, accounting, finance, PR, and communications fields

WHAT PARTICIPANTS WILL LEARN

- What natural gas and its key characteristics
- Natural gas industry jargon
- The key components associated with gas production, processing, and delivery and how they work
- How the overall gas system is operated for high reliability, low cost, and to safely satisfy the needs of various market participants

COURSE AGENDA

Overview of Natural Gas Characteristics

- What is natural gas?
- Key properties
- Safety
- Gas composition
- Pressure
- Units

Key Components of Gas Systems

- Distribution pipe
- Welding

- San Bruno failure
- Stress limits
- Maximum allowable operating pressure
- Pipeline construction
- Plastic pipe and joining methods
- Compression
- Types of valves
- Pressure control
- Regulators
- Odorization
- SCADA
- Meter types

Production and Processing Systems

- Types of gas resources
- Supply basins
- Wells and drilling
- Gathering system
- Processing plant

Transmission Systems

- Overview of transmission
- U.S. transmission pipelines

Gas Storage

- Pack and draft
- Storage in pipelines
- Underground storage
- Curtailments

Gas Distribution and System Operations

- Key priorities of Gas Operations
- Maintenance
- Regulatory oversight
- Distribution risks
- Emergency response