



Design Training Class

Title: Distribution System Design

Level: Basic/Beginner

Industry Sector: Natural Gas Distribution Systems

Duration: Approximately 3.5 days

The course provides a basic introduction to the design and analysis of natural gas distribution systems, including the design of regulator stations, mains, services, and meter sets. The course work will be supplemented by the use of a variety of software products which will assist the student in the various design tasks. The course is intended for designers that are new to or occasionally undertake natural gas distribution system design.

The course consists of classroom lecture and example tasks used to reinforce the discussion topics. Both the GASWorkS and GASCalc software will be used to assist the student in performing the study examples. Topics to be covered will include:

- Design criteria and philosophies.
- Customer loads.
- Materials and equipment.
- Basic gas laws.
- Hydraulic design.
- Strength design.
- Valve placement.
- Metering and pressure regulation.
- Industry standards, specifications, and regulations.
- Student suggested topics and examples.

The class is intended for students that are new to natural gas system design. Attendees should have a basic understanding of the math and science skills required to perform the various design calculations and a basic understanding of using Windows based software applications.

Students are encouraged to bring example design problems, issues, and topics. A portion of the class time will be set aside for working with student examples and specific topics of interest.