Regulator Technologies, Regulators & Gas Control

No other natural gas regulator manufacturer in the world offers more products and local services dedicated to safe, effective applications than Emerson Fisher Regulator Technologies. We train the personnel of gas production, storage, pipeline, and distribution companies. Several courses covering the installation, troubleshooting, and adjustment of gas regulators and relief valves are available for gas regulator technicians at Regional Training Centers. Managers, engineers, and technicians may wish to consider the Gas Control Conferences.

Gas Regulator Technician

Course 1100 CEUs: 2.1

Overview

This 3-day course is designed primarily for technicians responsible for the installation and maintenance of natural gas regulators. Emphasizing hands-on training, this course teaches students to install, troubleshoot, and adjust gas regulators. Students who complete this conference will be able to:

- perform maintenance on regulators and relief valves
- troubleshoot field problems

Prerequisites

At least one year's field experience with natural gas regulators is recommended.

Topics

- Self-Operated Regulators
- Pilot-Operated Regulators
- Overpressure Protection
  - Series Regulation
  - Monitors
  - Slam Shut Options
- Regulator Failure Analysis
- Troubleshooting and Installation

Principles of Self-Operated Regulators

Course e7601

This course introduces self-operated regulator fundamentals for those with newly assigned responsibilities for regulator selection, maintenance, or procurement.

Objectives: Upon completion of this module, students will be able to describe the construction components and operating principles behind most self-operated regulators. Students will be able to describe how changing some of these components will increase or decrease a regulator's performance for a given application. Students will develop the vocabulary necessary to describe the parts and working principles of self-operated regulators.

$50 per student - unlimited access 3 months.

Gas Regulator Troubleshooting

Course 1106 CEUs: 2.1

This course is designed primarily for technicians with responsibility for installing, maintaining, and troubleshooting gas regulators.

Overview

This 3-day course provides intensive hands-on training using the same regulators that are commonly used in the field. Actual gas regulator problems are simulated in the workshops, challenging the student to efficiently diagnose problems and restore the regulator to proper operation. Students who complete this course will:

- efficiently and safely troubleshoot common regulator operational performance problems
- understand the influence of the service environment on regulator performance
- understand the importance of correct installation procedures
- understand the role of correct sizing as it impacts regulator performance
- perform maintenance on regulators and relief valves
- troubleshoot field problems

Prerequisites

Gas Regulator Technician, Course 1100, or 2 years' experience with regulators.

Topics

- Review:
  - Self-Operated Regulator Fundamentals
  - Pilot-Operated Regulator Fundamentals
  - Overpressure Protection
- Sizing Overview for Technicians
- Regulator Troubleshooting Principles, Procedures, and Best Practices
  - Failure Analysis
  - Stability Issues
  - Installation Practices
  - Pilot Interchangeability Practices
  - Advanced Monitor Operations and Maintenance

Gas Control Conference

Course 8000 CEUs: 3.2

This conference is for those responsible for the selection, application, and operation of regulators in the natural gas industry.

Overview This 4-1/2 day conference demonstrates the fundamentals of natural gas regulators in gas pressure control. This course emphasizes natural gas distribution and also covers natural gas transmission. Students who complete this conference will be able to:

- evaluate the difference between direct-operated and pilot-operated regulators
- evaluate the different methods of overpressure protection
- properly size regulators and relief valves for natural gas applications
- troubleshoot a wide variety of regulator types

Prerequisites At least one year's experience in the field of natural gas regulators is recommended.

Topics

- Self-Operated Regulator Fundamentals
- Pilot-Operated Regulator Fundamentals
- Two-Path vs. Unloading Style Pilots
- Regulator Sizing and Selection
- Overpressure Protection Methods
- Monitor Methods and Sizing
- Sizing and Selection of Relief Valves
- Pressure Factor Measurement
- Troubleshooting Regulators
- Failure Analysis
- Recommended Installation Practices
- Aerodynamic Noise Theory, Treatment Methods and Technologies
- Regulator Olympics - 3 Troubleshooting Challenges*

A panel of Emerson marketing, engineering, and new product design engineers will discuss trends and needs in the Natural Gas market.

*The Regulator Olympics divides the class members into teams to participate in troubleshooting regulators—diagnosing district station problems, changing monitor modes, and working on commercial service regulators.

For Regulator Technologies training info please refer to the appropriate contact on page 118.
For regional training center contacts refer to pages 116-117.
Visit: www.emersonprocess.com/education for current dates, locations and enrollments,