

# Regulators and Associated Equipment

# **Regulators and Associated Equipment**

This five-day course provides technicians with an understanding of the function and operation of the various types of regulators used in gas distribution systems. It also describes the operation and maintenance of the various pieces of equipment used in a piping system in conjunction with pressure regulators.

## I. Regulators

- · Weight Loaded
- · Pilot Operated
- · Weight and Lever Operated

# **II. Spring-Operated Regulators**

- · Function
- · Operation
- · Fisher S200 Series Regulators

# III. Pilot Operated Two-Path Regulators

- · Fisher 99 Series Regulator
- · Fisher 298 Series Regulator
- · Fisher 310 Series Regulator
- · Fisher 399A Regulator

## IV. Pilot Unloaded Regulators

- · Mooney Pilot Unloaded Regulators
- · Grove Regulators
- · American Meter Axial Flow Regulator

# V. Relief Valves

- ·Spring-Loaded Relief Valves
- · Pilot-Operated Relief Valves

## VI. Diaphragm Actuator

# VII. Valve Controllers

- · Principle of Operation
- · Calibration Process Pointer Zero and Span Adjustment

#### **VIII. Valve Positioners**

- Pneumatic Valve Positioner Principle of Operation
- · Electro-Pneumatic Valve Positioner Principle of Operation

#### IX. Valve Trim for Control Valves

- · Equal Percentage
- ·Linear
- · Quick Opening
- · Whisper Trim

## X. Gas Fuses and Flow Limiters

## **XI. Security Valves**

#### XII. Valves

- · Ball Valves
- · Needle Valves
- · Plug Valves
- · Butterfly Valves
- ·Identification, Marking, and Symbols

#### XIII. Strainers

- · Wye-Type Strainer
- · Basket Strainer
- ·T-Type Strainer
- · Apollo Strainer
- · Applications of Strainers in a System

#### XIV. Valve Actuators

- · Hand Gear Operator
- ·Limitorque Operators

# XV. Orifice Fittings

- · Daniel Junior Orifice Fittings
- Removing an Orifice Plate on a Daniel Junior Orifice Fitting
- · Replacing an Orifice Plate on a Daniel Junior Orifice Fitting
- · Daniel Senior Orifice Fittings
- · Removing an Orifice Plate on a Daniel Senior Orifice Fitting
- · Replacing an Orifice Plate on a Daniel Senior Orifice Fitting
- ·Orifice Fitting Lubrication

# **XVI. Metering Devices**

- · Orifice Plates
- · Orifice Plate Inspections
- · Orifice Plate Environmental Concerns