



Advanced Gas Valve School August 17-18, 2010

Course Outline

Recommended for O&M and M&R persons with at least a basic understanding of valves who may be required to maintain or correct a ball or plug valve. This training will also cater to OQ managers, supervisors and team leaders who are expected to train or lead other employees in an understanding of how to operate, maintain and / or correct ball and plug valves.

Val-Tex:

Plug Valves (4 hrs)

- What they are, identification, application, how they work
 - 4 types
- Maintenance
 - Greasing vs Flushing
 - Reading the gauge
- Common Problems
 - Rust
 - Solid fillers
 - Grease volume
- Troubleshooting
 - Is it external or internal?
- Equipment we need
 - Review products available
 - Explain gun types and application
 - Dispel myths associated with valve grease and flush
 - Visual test conducted

Ball Valves (2 hrs)

- What they are, identification, application, how they work
 - Specific to Cameron and Grove (trunnion mounted pipeline ball valves with no consideration given to floaters)
- Maintenance
 - Greasing vs Flushing
 - Stress actuator maintenance at the same time as valve maintenance
- Common Problems

- Pipeline debris
- Ball alignment
- Rust in worm gear
- Troubleshooting
 - Internal or external?
 - Tricks and tips
- Discussion on construction, hydro, and pre-sign off checklists and considerations
 - Position of valve during hydro and why
 - Inside-out test - check stops
 - Conduct riser inspection prior to burring and charge risers
 - Welding considerations

Worm Gears (2 hrs)

- 2 different types
 - single acting and double reduction
- How they work
 - drawings and discussion
- Maintenance
 - greasing
 - Water mitigation
 - Tricks and tips
- Setting stops
 - Procedure
- Troubleshooting
 - Review methods

Cameron:

Cameron/Grove (half day-4 hrs)

- Cameron Valves
 - Design, Features, Benefits, Operation, Maintenance, Troubleshooting
- Grove Valves
 - Design, Features, Benefits, Operation, Maintenance, Troubleshooting
- Valve Configurations/Options including Extensions & Pups
- Tom Wheatley Check Valves
- Q&A-Open Discussion

Ledeen Actuators (half day-4 hrs)

- Types of Actuators (Pneumatic DA & SR, Gas/Oil, and Direct Gas)
- Control Systems (Low Pressure versus High Pressure controls)
 - Design, Features, Benefits, Operation, Maintenance, Troubleshooting
 - Discuss various standard control schematics from a Features, Benefits, Operation, Maintenance, Troubleshooting
- Q&A-Open Discussion