

DOT Considerations (Instructor-Led Training)

Course Description

This course introduces the Department of Transportation (DOT) considerations required for the natural gas transmission industry. It includes a review of the Code of Federal Regulations applicable to natural gas pipeline transportation, including overpressure protection, operations, and integrity management.

Course Prerequisites

- GTA Instructor-Led Training
 - Measurement Systems
 - Instrumentation Systems

Course Objectives

Upon completion of this course, the student will have received instruction designed to assist him/her in the following:

- Describe the major sections of US Federal Regulation 49 CFR 192.
- List key definitions in 49 CFR 192.
- Describe the 49 CFR 192 requirements for gas pressure regulators and overpressure protection.
- List the 49 CFR 192 operator requirements for maintenance and normal operations.
- List the 49 CFR 192 operator qualifications for natural gas operations.
- Determine MAOP classifications for pipeline locations.
- List the 49 CFR 192 maintenance requirements for transmission and distribution lines.
- Describe the 49 CFR 191 reporting requirements.
- List the 49 CFR 192 requirements for gas odorization.
- Explain the 49 CFR 192 code requirements for pipeline integrity management.

Course Outline

1. CFR 192 Navigation
 - a. Regulations
 - b. Natural Gas Pipeline Safety Act of 1968
 - c. Pipeline Safety Improvement Act of 2002
 - d. Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006
 - e. PHMSA
 - f. Federal Coordination with the States
 - g. Code of Federal Regulation, Title 49
 - h. CFR 190, 191, 192, 193, 194, 195, 198, & 199
2. Definitions
3. Gas Pressure Regulation and Overpressure Protection
 - a. General Design Requirements
 - i. §192.195 Protection Against Accidental Over-pressuring
 - ii. §192.199 Requirements for Design of Pressure Relief and Limiting Devices
 - iii. §192.201 Required Capacity of Pressure-relieving and Limiting Stations
 - b. Inspection, Testing, and Maintenance
 - i. §192.731 Compressor Stations: Inspection and Testing of Relief Devices
 - ii. §192.739 Pressure-limiting and Regulating Stations: Inspection and Testing
 - iii. §192.743 Pressure-limiting and Regulating Stations: Capacity of Relief Devices
4. Operations
 - a. §192.603 General Provisions
 - b. §192.605 Procedural Manual for Operations, Maintenance, and Emergencies
 - c. §192.621 Maximum Allowable Operating Pressure: High-pressure Distribution Systems
5. Operator Qualifications
 - a. §192.801 Scope
 - b. §192.805 Qualification Program
6. MAOP Class Locations
 - a. Classification Locations
 - i. §192.619 Maximum Allowable Operating Pressure: Steel or Plastic Pipelines.

7. Operations: Transmission and Distribution
 - a. Transmission Line Maintenance
 - i. §192.711 Transmission Lines: General Requirements for Repair Procedures
 - ii. §192.705 Transmission Lines: Patrolling
 - iii. §192.706 Transmission Lines: Leakage Surveys
 - iv. §192.745 Valve Maintenance: Transmission Lines
 - b. Distribution Line Maintenance
 - i. §192.721 Distribution Systems: Patrolling
 - ii. §192.723 Distribution Systems: Leakage Surveys
 - iii. §192.747 Valve Maintenance: Distribution Systems
 - c. Vaults
 - i. §192.749 Vault Maintenance
 - ii. §192.751 Prevention of Accidental Ignition
8. Reporting Requirements
 - a. § 191.3 Definitions
 - b. § 191.5 Telephonic Notice of Certain Incidents
 - c. § 191.23 Reporting Safety-Related Conditions
9. Gas Odorization
 - a. §192.625 Odorization of Gas
10. Integrity Management
 - a. Definitions
 - b. High-consequence Area From § 192.903
 - c. §192.905 How Does an Operator Identify a High-consequence Area?
 - d. §192.911 What are the Elements of an Integrity Management Program?

Recommended Resources

- GTA DOT Considerations Participant Guide
- GTA DOT Considerations Presentation.
- Natural Gas Pipeline Safety Act of 1968
- Pipeline Safety Improvement Act of 2002
- Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006
- PHMSA
- Federal Coordination with the States
- Code of Federal Regulation, Title 49
- CFR 190, 191, 192, 193, 194, 195, 198, & 199
- Internet sites related to pipeline safety.
- Textbooks and other publications related to pipeline safety.