Part 1 Class- Basic Properties of Natural Gas

NY

Training-3 Day Session…… (4 Hour Hands-On) 24 Hours

Testing (48 Hours after Training)- 1/2 Day Session……4 Hours

PA

Training- 1.5 Day Session…… (2 Hour Hands-On)12 Hours
Testing (12 Hours after Training)- 1/2 Day Session……4 Hours

NOTE: NY will qualify in the **NFG HYB** series and PA will qualify in the **NFGPA** series. NFG Trainer will discuss the specifics/differences of each series during class.

Classroom Training:

Class Overview
Safety/PPE

Covers Tasks:

06A- Inspecting for Atmospheric Corrosion, Including Evaluation and Remediation
11/12/17- Basic Pipe Coatings (Paint and Wax Tape)
70- Properties of Natural Gas/Abnormal Operating Conditions
71- Excavation & Backfill
85- Meter Assembly Abnormal Operating Conditions
NFG-18B/19B – Patrolling/Leakage Surveys (Inside portion when meter inside) (NFG Only)
NFG- Hazardous/Potentially Atmospheres
NFG-69B-Odorant Sniff Card
National Fuel Procedure Manual Sections Referring to Material Listed Above.

Hands-On Training:

Atmospheric Corrosion- Pipe Samples/Meter Samples
Natural Gas Monitoring Equipment- CGI, MSA Monitor
Safety – Fire Extinguishers
Procedure Manual Training on Company Laptops

Testing:

- Written Test (WE) - 06A-Inspecting for Atmospheric Corrosion, Including Evaluation and Remediation
- WE-11/12/17A- Basic (Paint and Wax Tape)
- WE-70- Properties of Natural Gas and Abnormal Operating Conditions
- WE-71- Excavation & Backfill
- WE-85- Meter Assembly Abnormal Operating Conditions
- WE-18B/19B- Patrolling/Leakage Surveys – (Inside Portion When Meter Inside) **(NFG Only)**
- WE- 69B- Monitor Natural Gas Odorization Levels – Customer Service (Sniff Card)
- WE- Task 801- Part 1- Operating & Maintenance Procedures

Below is the Covered Tasks Listing the Domains and Elements that will be covered during Training Class.

COVERED TASK #06A: Inspecting for Atmospheric Corrosion, Including Evaluation and Remediation

1. Monitoring for Atmospheric Corrosion
   a. Know where to check for atmospheric corrosion
   b. Know the characteristics of atmospheric corrosion
   c. Know how to recognize atmospheric corrosion

2. Evaluation of Atmospheric Corrosion
   a. Know how to prepare pipe for evaluation of atmospheric corrosion
   b. Know the tool used for evaluating atmospheric corrosion

3. Remediation of Atmospheric Corrosion
   a. Know how to determine remedial action for atmospheric corrosion

COVERED TASK #11/12/17 Basic: Applying Pipe Coatings in the Field

1. Measurements
   a. Knowledge of the measurement tools used

2. Coating Failures and Repairs
   a. Knowledge of proper surface preparation
   b. Know how to recognize and correct defects in coatings

3. Wax Tape Pipe Coatings
   a. Knowledge of proper wax tape application methods
   b. Knowledge of appropriate uses of wax tape pipe coatings

4. Paint Pipe Coatings (Spray and Brush)
   a. Knowledge of proper paint pipe coating application methods
   b. Knowledge of proper uses of paint pipe coatings

COVERED TASK #70: Properties of Natural Gas/ Abnormal Operating Conditions

1. Knowledge Properties of Natural Gas
   a. Knowledge of the chemical components of natural gas
      1. Toxicity
      2. Odor
      3. Color
      4. Compressibility
      5. Energy content
      6. Specific gravity
   c. Knowledge of natural gas ignition sources
   d. Knowledge of the combustion range for natural gas

2. Abnormal Operating Conditions
   a. Know how to recognize and respond to an over pressure condition
   b. Know how to recognize and respond to an inadequate pressure condition
   c. Know how to recognize and respond to unintentional ignition
   d. Know how to respond to an explosion
   e. Know how to respond to a component failure
   f. Know how to recognize and respond to damage to a facility
   g. Know how to recognize and respond to improper odorization
   h. Know how to recognize and respond to escaping gas
   i. Know how to recognize and respond to unplanned exposed facilities
   j. Know how to respond to unmarked facilities

COVERED TASK #71: Excavation & Backfill

1. Excavation
   a. Knowledge of Facility Marking Colors
   b. Understand the Need to Protect and Support Underground Lines

2. Backfilling
   a. Knowledge of Backfilling Materials
   b. Knowledge of the Compaction Process

3. Abnormal Operating Conditions
   a. Know How to Respond to Facility Marking Issues
   b. Know How to Respond to Improper Soil Conditions
   c. Know How to Respond to an Unknown Facility

COVERED TASK #85: Meter Assembly Abnormal Operating Conditions

Meter Components

1. Know how to identify the components of a residential, commercial and industrial meter

2. Inadequate Support Placing Stress on Meter Assembly
   a. Know how to identify an indication of stress on the outlet piping of a meter
   b. Know how to identify an indication of stress on the inlet piping / riser
   c. Know how to identify inadequate support on non-rigid piping connections
   d. Know how to identify an indication of stress on a meter

3. Structure Over a Gas Facility
   a. Know how to identify structures over a gas facility

4. Incorrect Depth of Cover on a Gas Facility
   a. Know how to identify unplanned exposed pipe
   b. Know how to identify an unplanned buried facility

5. Potential Atmospheric Corrosion
   a. Know how to identify indications of potential atmospheric corrosion

6. Improper Venting
   a. Know how to identify an obstructed regulator vent
   b. Know how to identify a regulator vent too close to a building opening
   c. Know how to identify an improper regulator vent installation

7. Vehicle Barrier Protection
   a. Know how to identify the potential need for vehicle protection
   b. Know how to identify inadequate or damaged vehicle protection

8. Customer Owned Piping
   a. Know how to identify unsafe customer buried pipe (e.g., atmospheric corrosion and unprotected steel going into the ground)
   b. Know how to identify unsafe customer above ground piping (e.g., inadequate support and above ground plastic piping)

9. Inside Meter Location
   a. Know how to identify an inadequately spaced meter from a heat source that may damage the meter
   b. Know how to identify a meter which is not in a ventilated space

COVERED TASK #85: Meter Assembly Abnormal Operating Conditions

Meter Components (cont.)

10. Abnormal Meter Operations
    a. Know how to identify unusual meter sounds
    b. Know how to identify rapid meter dial movement

11. Partially Open meter / riser Valve
    a. Know how to identify a partially open riser valve

12. Pipe Plug Missing
    a. Know how to identify a missing pipe plug

13. Conditions Requiring Immediate Action
    a. Know how to identify and respond to conditions requiring immediate action

COVERED TASK NFG #18B/19B – Patrolling/Leakage Surveys – Inside Portion When Meter Inside

1. Portable Combustible Gas Indicator (CGI)

a. Knowledge of equipment used in either interior jurisdictional piping leak surveys or purging interior piping into and out of service

2. Inspection for Atmospheric Corrosion & Point of Entry

a. Understand basic properties and characteristics of atmospheric corrosion
b. Know where and how to check for atmospheric corrosion
c. Know how to use tools (e.g., visual comparator) to evaluate the severity of atmospheric corrosion
d. Know how to identify an improper or missing POE seal

3. Leak Survey of Interior Piping

a. Know where and how to survey interior piping for leaks
b. Knowledge of survey practices, including how to react to an indication of a gas leak found during a leak survey
c. Know how to react to restricted access into a building in connection with conducting a leak survey
d. Knowledge of conducting an interior piping survey, including proper use of the survey equipment