# COVERED TASK 86: Conducting Interior Jurisdictional Piping Safety Inspections

## *A. Task Description*

Conduct interior jurisdictional piping safety inspections, including identification of abnormal operating conditions (AOCs), inspecting for atmospheric corrosion, and performing leak surveys. This task combines elements of other tasks (i.e., Tasks 6, 18, 70, 72, and 85) to enable performance of mandated safety inspections of visibly accessible interior jurisdictional gas distribution piping by the following: (1) in NYC, by operator-qualified Licensed Master Plumbers (LMPs), operator-qualified technicians working under LMPs, or operator-qualified utility personnel or operator-qualified utility subcontractor personnel, and (2) outside NYC, by equivalent operator-qualified licensed plumbing professionals, or operator-qualified utility personnel or operator-qualified utility subcontractor personnel.

## *B. Application of the Three-part Test for Covered Tasks*

This task is performed on a pipeline facility.
This task is performed as a requirement of 49 CFR 192.481, 192.605, 192.723, and 192.803.
This task can affect the operation or integrity of the pipeline.

## *C. Discussion*

For purposes of this task, jurisdictional piping is defined as all visibly accessible interior building piping, fittings, and appurtenances (meters, pressure regulators, filters, meter bars, and transition piping) regulated by the federal Department of Transportation (DOT)—from the point-of-entry (POE/wall penetration) through the outlet of the meter.

Safety inspections include visual inspection of piping and appurtenances for atmospheric corrosion, inspection of the point-of-entry foundation wall seal and illegal or improper piping connections, including any indications of theft and/or diversion of service. The safety inspection also includes conducting leak surveys using an approved portable combustible gas indicator to monitor the atmosphere in the vicinity of the pipe and appurtenances being visually inspected.

Note: NYC LL 152 requires owners of commercial and multifamily (3-family or more) buildings to conduct interior gas piping safety inspections of visibly accessible piping from the POE to the point of end use (appliances, boilers, water heaters, etc.) when access is available.

## *D. Subsequent Qualification Interval*

| Subsequent Qualification Interval | Frequency of Task Performance | Complexity of Task | Risk/Consequence of Improper Performance |
|---|---|---|---|
| Within 3 years | 0-6 months | Medium | High |

## *E. Abnormal Operating Conditions*

1. Unintentional ignition of natural gas
2. Explosion involving natural gas
3. Inadequate or excess pressure
4. Damage to interior jurisdictional piping
5. Inadequate support placing stress on interior piping and/or meter assembly
6. Improper interior piping or piping connections, including indications of theft and/or diversion of service
7. Improper inside meter/regulator installation and/or location, including improper grounding/bonding to meter assembly
8. Improper inside meter assembly venting
9. Atmospheric corrosion
10. Inadequate gas odor
11. Odor of gas inside a building
12. Gas leak indication found during a leak survey
13. Leak survey building access restrictions
14. Point-of-entry (POE) not properly sealed at the foundation wall or floor to prevent gas leakage into the building
15. Service line entering a building below grade not properly protected from corrosion and settlement
16. Service line entering a building under a slab or foundation that is not properly vented and sealed.

## *F. Evaluation Method(s)*

1. Online examination with reasonable accommodation
2. Performance simulation/demonstration

## *G. Domains and Elements*

1. Properties of Natural Gas
   a. Knowledge of chemical and physical properties of natural gas
   b. Knowledge of natural gas ignition sources
   c. Knowledge of the combustible range for natural gas

2. Abnormal Operating Conditions Related to Jurisdictional Piping
   a. Know how to recognize and respond to unintentional ignition of natural gas or an explosion involving natural gas
   b. Know how to recognize and respond to inadequate or excess pressure—pressure that falls below normal operating requirements or exceeds operating limits and could affect performance of interior piping, pressure regulator, meter, and end-use equipment
   c. Know how to recognize and respond to potentially unsafe conditions, including improper interior piping or piping connections (e.g., flex connectors, valves, and unions; inappropriate branch connections; and conditions indicating theft and/or diversion of service), damage to interior jurisdictional piping, and inadequate

support placing stress on interior piping or meter assembly, improper or missing point-of-entry (POE) foundation wall seal
   d. Know requirements for venting and sealing service lines that enter a building from under a slab or foundation
   e. Know how to recognize and respond to improper inside meter or regulator installation and/or location, including improper grounding/bonding to a meter assembly and improper meter assembly venting
   f. Know how to recognize and respond to indications of atmospheric corrosion
   g. Know how to recognize and respond to abnormal conditions involving gas odor, including odor identified upon entering a building and inadequate or lack of odor in the case of a known leak

3. 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

4. Inspection for Atmospheric Corrosion
   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

5. 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. Demonstrate ability to conduct an interior piping survey, including proper use of the survey equipment

## H. *Subtasks*

Subtask assignments are determined by each operator.

| | | |
|---|---|---|
| Test A | Jurisdictional piping: general knowledge | Domains 1 - 3 |
| Test B | Conducting interior jurisdictional piping safety inspections | Domains 4 & 5a - c |

***Span of Control:*** 1 to 1

**Release Note**: Task Sheet revised and released to NGA membership on 2021-03-31. This task sheet revision to be incorporated into NGA Written Plan document/template upon next release.

# COVERED TASK 87: Conducting Interior Jurisdictional Piping Construction and Maintenance Activities

## *A. Task Description*

Interior jurisdictional piping construction and maintenance activities conducted by the following: (1) in NYC, by operator-qualified Licensed Master Plumbers (LMPs), operator-qualified technicians working under LMPs, or operator-qualified utility personnel, and (2) outside NYC, by equivalent operator-qualified licensed plumbing professionals, or operator-qualified utility personnel or operator-qualified utility subcontractor personnel. This task combines elements of other tasks (i.e., Tasks 11, 12, 17, 32, 33, , 41, 49, 70, 72, and 85) to cover requirements for LMPs and others to construct new interior piping; connect deenergized piping to isolated, energized piping; install meter and regulator piping connections and systems; make a repair to an inadequate point-of-entry (POE) wall penetration seal and isolate and repair existing piping systems, including purging and pipe tightness testing.

## *B. Application of the Three-part Test for Covered Tasks*

This task is performed on a pipeline facility.
This task is performed as a requirement of 49 CFR 192.361, 192.481, 192.605, 192.629, 192.723, 192.749, and 192.803.
This task can affect the operation or integrity of the pipeline.

## *C. Discussion*

For purposes of this task, *jurisdictional piping* is defined as all visibly accessible interior building piping, fittings, and appurtenances regulated by the federal Department of Transportation (DOT)—from the point-of-entry (POE/wall penetration) through the outlet of the meter.

LMPs and technicians working under their licenses are skilled professionals who perform day-to-day gas piping work inside buildings, including work on piping regulated by the DOT and piping regulated by any other authority having jurisdiction (e.g., NYC Department of Buildings). As part of the licensing process, LMPs are fully evaluated, on natural gas safety; AOC's and substandard piping conditions: unsafe appliance operation; interior pipe construction and applicable pipe joining techniques; and piping connections, point-of-entry (POE) foundation wall seals, valves, and meter assemblies. Their OQ qualified technicians have received instructor-led training and at all times are under the direct and continuing supervision of the LMP.

Construction and maintenance functions covered by this task include isolation of piping systems (with approval from the Operator); purging of interior piping systems; making piping connections between interior deenergized piping systems and isolated, energized piping systems; installing or repairing point-of-entry foundation wall penetration seals and constructing meter header assemblies, meter bars, and pressure regulator vent

piping assemblies—in accordance with Operator requirements, applicable local, state, and federal code requirements, and accepted industry practices.

## *D. Subsequent Qualification Interval*

| Subsequent Qualification Interval | Frequency of Task Performance | Complexity of Task | Risk/Consequence of Improper Performance |
|---|---|---|---|
| Within 3 years | 0-6 months | Medium | High |

## *E. Abnormal Operating Conditions*

1. Unintentional ignition of natural gas
2. Explosion involving natural gas
3. Inadequate or excess pressure
4. Damage to interior jurisdictional piping
5. Inadequate support placing stress on interior piping and/or meter assembly
6. Improper interior piping or piping connections, including indications of theft and/or diversion of service
7. Improper inside meter/regulator installation and/or location, including improper grounding/bonding to meter assembly
8. Improper inside meter assembly venting
9. Atmospheric corrosion
10. Inadequate gas odor
11. Odor of gas inside a building
12. Inability to achieve purging end-points
13. Gas leak found during a pipe tightness test
14. Difficult to operate or inoperable valves
15. Service valve not secured/locked
16. Point-of-entry (POE) not properly sealed at the foundation wall to prevent gas leakage into the building

## *F. Evaluation Method(s)*

Online examination with reasonable accommodation

## *G. Domains and Elements*

1. Properties of Natural Gas
   a. Knowledge of chemical components and physical properties of natural gas
   b. Knowledge of natural gas ignition sources
   c. Knowledge of the combustible range for natural gas

2. Abnormal Operating Conditions Related to Jurisdictional Piping
   a. Know how to recognize and respond to unintentional ignition of natural gas or an explosion involving natural gas
   b. Know how to recognize and respond to inadequate or excess pressure—pressure that falls below normal operating requirements or exceeds operating

limits and could affect performance of interior piping, pressure regulator, meter, and end-use equipment

c. Know how to recognize and respond to potentially unsafe conditions, including improper interior piping or piping connections (e.g., flex connectors, valves, and unions; inappropriate branch connections; conditions indicating theft and/or diversion of service), damage to interior jurisdictional piping, inadequate support placing stress on interior piping or meter assembly and improper or missing point-of-entry (POE) foundation wall seal.
d. Know how to recognize and respond to improper inside meter or regulator installation and/or location, including improper grounding/bonding to a meter assembly and improper meter assembly venting
e. Know how to recognize and respond to indications of atmospheric corrosion
f. Know how to recognize and respond to abnormal conditions involving gas odor, including odor identified upon entering a building and inadequate or lack of odor in the case of a known leak

3. 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

4. Purging Interior Piping
   a. Knowledge of the purging process, including requirements for purging interior pipe into or out of service
   b. Know how to recognize and respond to an incomplete purge

5. Construction and Repair of Interior Jurisdictional Piping
   a. Know how to mechanically join steel pipe, including use of threaded and flanged connections, in the construction or repair of interior jurisdictional piping or in making connections to energized valves
   b. Know how to install a regulator in a typical residential or small commercial installation
   c. Know how to conduct pipe system tightness testing, including how to recognize and respond to a gas leak found during a pipe tightness test (failed leak or soap test)

6. Valves
   a. Know how to identify types of valves used in isolating and restoring service
   b. Know how to identify the operating position of a valve
   c. Know how to operate valves to shut off a customer’s service
   d. Know how to recognize and respond to difficult to operate valves, inoperable valves, or unsecured/unlocked service valves

## *H. Subtasks*

Subtask assignments are determined by each operator.

| | | |
|---|---|---|
| Test A | Jurisdictional piping: general knowledge | Domains 1 - 3 |
| Test B | Conducting interior jurisdictional piping construction and maintenance activities | Domains 4 - 6 |

***Span of Control:*** 1 to 2

**Release Note**: Task Sheet revised and released to NGA membership on 2021-03-31. This task sheet revision to be incorporated into NGA Written Plan document/template upon next release.