

A11. What was the Operator's initial indication of the Failure? (select only one)

- SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume or pack calculations)
- Static Shut-in Test or Other Pressure or Leak Test Controller Local Operating Personnel, including contractors
- Air Patrol Ground Patrol by Operator or its contractor Notification from Public
- Notification from Emergency Responder Notification from Third Party that caused the Incident Other: _____

A11a. If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question A11, specify the following: (select only one) Operator employee Contractor working for the Operator

A12. Local time operator identified failure

Hour	Month	Day	Year
------	-------	-----	------

If A11 = Notification from Emergency Responder, skip questions A13 through A15.

A13. Did the operator communicate with Local, State, or Federal Emergency Responders about the incident? Yes No

If No, skip A14 and A15

A14. Which party-initiated communication about the incident? Operator Local/State/Federal Emergency Responder

A15. Local time of initial Operator and Local/State/Federal Emergency Responder communication

Hour	Month	Day	Year
------	-------	-----	------

A16. Local time operator resources arrived on site

Hour	Month	Day	Year
------	-------	-----	------

A17. Local time of confirmed discovery / / / / / / / / / / / / / /
 Hour Month Day Year

A18. Local time (24-hr clock) and date of initial operator report to the National Response Center:

Hour	Month	Day	Year
------	-------	-----	------

A19. Initial Operator National Response Center Report Number OR NRC Notification Required But Not Made

A19a. Additional NRC Report numbers submitted by the operator: _____

A20. Method of Flow Control (select all that apply)

- "Key/Critical" Valve – inspected in accordance with Part 192.747 Main Valve other than "Key/Critical"
- Service (curb) Valve Meter/Regulator shut-off Valve Excess flow valve
- Squeeze-Off Stopple fitting Other: _____

A21. Did the gas ignite? Yes No

If A21 = Yes, answer A21a through A21d.

A21a. Local time of ignition

Hour	Month	Day	Year
------	-------	-----	------

A21b. How was the fire extinguished?

- Operator/Contractor Local/State/Federal Emergency Responder Allowed to burn out Other, specify: _____

A21c. Estimated volume of gas consumed by fire (MCF): _____ (must be less than or equal to A7)

A21d. Did the gas explode? Yes No

A22. Number of general public evacuated: _____

PART B – ADDITIONAL LOCATION INFORMATION

B1. Was the Incident on Federal land? Yes No

B2. Location of Incident: (select only one)

Operator-controlled property Public property Private property Utility Right-of-Way / Easement

B3. Area of Incident: (select only one)

Underground Specify: Under soil Under a building Under pavement
 Exposed due to excavation In underground enclosed space (e.g., vault)
 Exposed due to loss cover Other _____

B3a. Depth-of-Cover (in): _____

B3b. Were other underground facilities found within 12 inches of the failure location? Yes No

Aboveground Specify: Typical aboveground facility piping or appurtenance (e.g., valve or regulator station, outdoor meter set)
 Overhead crossing In or spanning an open ditch Inside a building
 In other enclosed space Other _____

Transition Area Specify: Soil/air interface Wall sleeve Pipe support or other close contact area
 Other _____

B4. Did Incident occur in a crossing? Yes No

If Yes, specify type below:

Bridge crossing, Specify: Cased Uncased
 Railroad crossing (Select all that apply) Cased Uncased Bored/drilled
 Road crossing (Select all that apply) Cased Uncased Bored/drilled
 Water crossing (Select all that apply) Cased Uncased Bored/drilled

Name of body of water (If commonly known): _____

Approx. water depth at time and location of Incident (ft): _____ or Unknown

(select only one of the following)

Shoreline/Bank/Marsh crossing Below water, pipe in bored/drilled crossing
 Below water, pipe buried below bottom (NOT in bored/drilled crossing) Below water, pipe on or above bottom

PART C – ADDITIONAL FACILITY INFORMATION

C1. Indicate the type of pipeline system:

privately owned municipally owned investor owned cooperative Other ⇒ Specify: _____

C2. Part of system involved in Incident: (select only one)

Main Main Valve Service Service Valve Service Riser Outside Meter/Regulator set
 Inside Meter/Regulator set Farm Tap Meter/Regulator set District Regulator/Metering Station
 Other mandatory text field _____

C2a. Year item involved in the incident was installed: _____ or Unknown

C2b. Year item involved in the incident was manufactured: _____ or Unknown

When C2 is any value other than "Main", "Main Valve", "District Regulator/Metering Station", or "Other":

C2c. Indicate the customer type: (select only one)

Single Family Residential Multi-Family Residential
 Non-Residential with Meter capacity less than 1,000 scfh Non-Residential with Meter Capacity 1,000 scfh of higher

C2d. Was an EFV installed on the service line before the time of the incident? Yes No

If C2d = Yes, then C2e. Did the EFV activate? Yes No Unable to determine

C2f. Was a curb valve installed on the service line before the time of the incident? Yes No

C3. When C2 is "Main" or "Service" answer C3a through c and C4:

C3a. Nominal Pipe Size: / / / / / /

C3b. Pipe specification (e.g., API 5L, ASTM D2513): _____ OR Unknown

C3c. Pipe manufacturer: _____ or Unknown

C4. Material involved in Incident: Steel Cast/Wrought Iron Ductile Iron Copper Plastic
 Reconditioned Cast Iron Unknown Other Specify: _____

C4a. If Steel ⇒ Specify seam type:

Longitudinal ERW - High Frequency Single SAW Flash Welded DSAW Longitudinal ERW - Low Frequency
 Continuous Welded Furnace Butt Welded Longitudinal ERW – Unknown Frequency Spiral Welded Lap Welded
 Seamless Other Specify: _____

C4b. If Steel ⇒ Specify wall thickness (inches): / / / / / / or Unknown

C4c. If Plastic ⇒ Specify type: Polyvinyl Chloride (PVC) Polyethylene (PE) Cross-linked Polyethylene (PEX)
 Polybutylene (PB) Polypropylene (PP) Acrylonitrile Butadiene Styrene (ABS)
 Polyamide (PA) Cellulose Acetate Butyrate (CAB)

Other Specify: _____
 Unknown

C4d. If Plastic ⇒ Specify Standard Dimension Ratio (SDR): / / / / or wall thickness: / / / / or Unknown

C4e. If Polyethylene (PE) is selected as the type of plastic in PART C, Question 4.c ⇒
Specify PE Pipe Material Designation Code (i.e., 2406, 3408, etc.) PE / / / / / or Unknown

C5. Type of release involved: (*select only one*)

- Mechanical Puncture Approx. size: / / / / / in. (axial) by / / / / / in. (circumferential)
- Leak Select Type: Pinhole Crack Connection Failure Seal or Packing Other
- Rupture Select Orientation: Circumferential Longitudinal Other _____
 Approx. size: / / / / / in. (widest opening) by / / / / / in. (length circumferentially or axially)
- Other *Describe: _____

PART D – ADDITIONAL CONSEQUENCE INFORMATION

D1. Class Location of Incident: *(select only one)*

- Class 1 Location
- Class 2 Location
- Class 3 Location
- Class 4 Location

D2. Estimated Property Damage :

- D2a. Estimated cost of public and non-Operator private property damage \$ / / / / / / / / / / / / / /
- D2b. Estimated cost of Operator’s property damage & repairs \$ / / / / / / / / / / / / / /
- D2c. Estimated cost of emergency response \$ / / / / / / / / / / / / / /
- D2d. Estimated other costs \$ / / / / / / / / / / / / / /

Describe: _____

D2e. Total estimated property damage (sum of above) \$ *calculated*

Cost of Gas Released

Cost of Gas in \$ per thousand standard cubic feet (mcf): _____

- D2f. Estimated cost of gas released unintentionally \$ *calculated*
- D2g. Estimated cost of gas released intentionally during controlled release/blowdown \$ *calculated*
- D2h. Total estimated cost of gas released (sum of D2f and g) \$ *calculated*
- D2i. Estimated Total Cost (sum of D2e and D2h) \$ *calculated*

D3. Estimated number of customers out of service:

- D3a. Commercial entities / / / / / / / / / /
- D3b. Industrial entities / / / / / / / / / /
- D3c. Residences / / / / / / / / / /

Injured Persons not included in A10 The number of persons injured, admitted to a hospital, and remaining in the hospital for at least one overnight are reported in A10. **If a person is included in A10, do not include them in D4.**

D4. Estimated number of persons with injuries requiring treatment in a medical facility but not requiring overnight in-patient hospitalization: _____

If a person is included in D4, do not include them in D5.

D5. Estimated number of persons with injuries requiring treatment by EMTs at the site of incident: _____

Buildings Affected

D6. Number of residential buildings affected (evacuated or required repair or had gas service interrupted): _____

D7. Number of business buildings affected (evacuated or required repair or had gas service interrupted): _____

PART F – DRUG & ALCOHOL TESTING INFORMATION

F1. As a result of this Incident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?

- No
- Yes F1a. Specify how many were tested: / / /
- F1b. Specify how many failed: / / /

F2. As a result of this Incident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?

- No
- Yes F2a. Specify how many were tested: / / /
- F2b. Specify how many failed: / / /

PART G – APPARENT CAUSE Select only one box from PART G in the shaded column on the left representing the APPARENT Cause of the Incident, and answer the questions on the right. Enter secondary, contributing, or root causes of the Incident in Part J – Contributing Factors

G1 – Corrosion Failure – only one sub-cause can be picked from shaded left-hand column

External Corrosion

1. Results of visual examination:
 - Localized Pitting General Corrosion Other _____
2. Type of corrosion: (select all that apply):
 - Galvanic Atmospheric Stray Current Microbiological Selective Seam
 - Other _____
- 2a. If 2. is Stray Current, specify: Alternating Current Direct Current AND
- 2b. Describe the stray current source: _____
3. The type(s) of corrosion selected in Question 2 is based on the following: (select all that apply)
 - Field examination Determined by metallurgical analysis Other _____
4. Was the failed item buried or submerged?
 - Yes ⇨
 - 4a. Was failed item considered to be under cathodic protection at the time of the incident?
 - Yes ⇨ Year protection started: / / / / / /
 - No
 - 4b. Was shielding, tenting, or disbonding of coating evident at the point of the incident?
 - Yes No
 - 4c. Has one or more Cathodic Protection Survey been conducted at the point of the incident? (select all that apply)
 - Yes, CP Annual Survey ⇨ Most recent year conducted: / / / / / /
 - Yes, Close Interval Survey ⇨ Most recent year conducted: / / / / / /
 - Yes, Other CP Survey ⇨ Most recent year conducted: / / / / / /
 - Describe Other CP Survey: _____
 - No
 - No ⇨
 - 4d. Was the failed item externally coated or painted? Yes No
5. Was there observable damage to the coating or paint in the vicinity of the corrosion?
 - Yes No N/A Bare/Ineffectively Coated Pipe
6. Pipeline coating type, if steel pipe is involved: (select only one)
 - Epoxy Coal Tar Asphalt Polyolefin Extruded Polyethylene
 - Cold Applied Tape Paint Composite None Other _____
 - Unknown
- 6a. Field Applied? Y, N, or Unknown

12a. If Yes, specify ticket number: /

12b. If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:

12c. Was work area white lined? No Yes Unknown

13. Type of Locator: Facility Owner Contractor Locator Unknown/Other

14. Were facility locate marks visible in the area of excavation? No Yes Unknown/Other

15. Did the damage cause an interruption in service? No Yes Unknown/Other

15a. If Yes, specify duration of the interruption: / / / / / hours

16. Description of the CGA-DIRT Root Cause (select the predominant CGA-DIRT Root Cause from the list below):

Notification Issue

- No notification made to the One-Call Center/811
- Excavator dug outside area described on ticket
- Excavator dug prior to valid start date/time
- Excavator dug after valid ticket expired
- Excavator provided incorrect notification information

Excavation Issue

- Excavator dug prior to verifying marks by test-hole (pothole)
- Excavator failed to maintain clearance after verifying marks
- Excavator failed to protect/shore/support facilities
- Improper backfilling practices
- Marks faded or not maintained
- Improper excavation practice not listed above

Locating Issue

- Facility not marked due to Abandoned facility
- Facility not marked due to Incorrect facility records/maps
- Facility not marked due to Locator error
- Facility not marked due to No response from operator/contract locator
- Facility not marked due to Incomplete marks at damage location
- Facility not marked due to Tracer wire issue
- Facility not marked due to Unlocatable Facility
- Facility marked inaccurately due to Abandoned facility
- Facility marked inaccurately due to Incorrect facility records/maps
- Facility marked inaccurately due to Locator error
- Facility marked inaccurately due to Tracer wire issue

Miscellaneous Root Causes

- Deteriorated facility
- One Call Center Error
- Previous damage
- Root Cause not listed (comment required): _____

G4 – Other Outside Force Damage – only one **sub-cause** can be selected from the shaded left-hand column

Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident

1. Vehicle/Equipment operated by: *(select only one)*
 Operator Operator's Contractor Third Party

Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation

If this sub-cause is picked, complete questions 7-13 below.

Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring

2. Select one or more of the following IF an extreme weather event was a factor:

Hurricane Tropical Storm Tornado
 Heavy Rains/Flood Other

Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation

Electrical Arcing from Other Equipment or Facility

Previous Mechanical Damage NOT Related to Excavation

Complete the following ONLY IF the “Part of system involved in Incident” (from PART C, Question 2) is Main, Service, or Service Riser.

3. Date of the most recent Leak Survey conducted: / / / / /

Month Day Year

4. Has one or more pressure test been conducted since original construction at the point of the Incident?

Yes Most recent year tested: / / / / /

Test pressure (psig): / / / / /

No

5. Specify:

Vandalism Terrorism
 Theft of transported commodity Theft of equipment
 Other _____

Intentional Damage

6. Describe: _____

Erosion of Support Due to Other Utilities

Other Outside Force Damage

Complete the following if Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation sub-cause is selected.

7. Was the driver of the vehicle or equipment issued one or more citations related to the incident? Yes No Unknown

If 7. is Yes, what was the nature of the citations (select all that apply)

- 7a. Excessive Speed
- 7b. Reckless Driving
- 7c. Driving Under the Influence
- 7d. Other, describe: _____

8. Was the driver under control of the vehicle at the time of the collision? Yes No Unknown

9. Estimated speed of the vehicle at the time of impact (miles per hour)? _____ or Unknown

10. Type of vehicle? (select only one) Motorcycle/ATV Passenger Car Small Truck Bus Large Truck

11. Where did the vehicle travel from to hit the pipeline facility? (select only one)
 Roadway Driveway Parking Lot Loading Dock Off-Road

12. Shortest distance from answer in 11. to the damaged pipeline facility (in feet): _____

13. At the time of the incident, were protections installed to protect the damaged pipeline facility from vehicular damage? Yes No

If 13. is Yes, specify type of protection (select all that apply):

- 13a. Bollards/Guard Posts
- 13b. Barricades, including “jersey” barriers and fences
- 13c. Guard Rails
- 13d. Meter Box
- 13e. Ingress or Regress at a Residence
- 13f. Other, describe: _____

G5 – Pipe, Weld, or Joint Failure – only one **sub-cause** can be selected from the shaded left-hand column

Body of Pipe

1. Specify: Dent Gouge Bend Arc Burn Crack
 Other _____

Butt Weld

2. Specify: Pipe Fabrication Other

Fillet Weld

3. Specify: Branch Hot Tap Fitting Repair Sleeve
 Other _____

Pipe Seam

4. Specify: LF ERW HF ERW Flash Weld DSAW
 SAW Spiral Other -

Threaded Metallic Pipe

Mechanical Joint Failure

5a. Specify the Mechanical Fitting Involved (*select only one*)

Stab Nut Follower Bolted
 Other Compression Type Fitting (*specify*): _____

5b. Specify the Type of Mechanical Fitting (*select only one*)

Service or Main Tee Tapping Tee Transition Fitting
 Coupling Riser Adapter Valve Sleeve
 End Cap Other (*specify*): _____

5c. Fitting Manufacturer: _____ or Unknown

5d. Part or Model Number: _____ or Unknown

5e. Fitting Material (*select only one*)

Steel Plastic Brass Combination Plastic and Steel
 Unknown Other (*specify*): _____

5f. How did the joint failure occur? (*select only one*)

Leaked Through Seal Leaked Through Body
 Pulled Out Other (*specify*): _____

Fusion Joint

6. Specify: Butt, Heat Fusion Butt, Electrofusion Saddle, Heat Fusion

Saddle, Electrofusion Socket, Heat Fusion Socket, Electrofusion

Other _____

7. Year installed: / / / / /

8. Other

attributes: _____

9. Specify the two materials being joined:

9a. First material being joined:

Polyvinyl Chloride (PVC) Polyethylene (PE)
 Cross-linked Polyethylene (PEX) Polybutylene (PB)
 Polypropylene (PP) Acrylonitrile Butadiene Styrene (ABS)
 Polyamide (PA) Cellulose Acetate Butyrate (CAB)
 Other ⇒ Specify: _____

9b. Second material being joined:

Polyvinyl Chloride (PVC) Polyethylene (PE)
 Cross-linked Polyethylene (PEX) Polybutylene (PB)
 Polypropylene (PP) Acrylonitrile Butadiene Styrene (ABS)
 Polyamide (PA) Cellulose Acetate Butyrate (CAB)
 Other ⇒ Specify: _____

Other Pipe, Weld, or Joint Failure

10. Describe: _____

Complete the following if any Pipe, Weld, or Joint Failure sub-cause is selected.

11. Additional Factors: *(select all that apply)* Dent Gouge Pipe Bend Arc Burn Crack Lack of Fusion
 Lamination Buckle Wrinkle Misalignment Burnt Steel
 Other _____

12. Was the Incident a result of:
 Construction defect, specify: ⇒ Poor workmanship Procedure not followed Poor construction/installation procedures
 Material defect, specify: ⇒ Long seam Other _____
 Design defect
 Previous damage

13. Has one or more pressure test been conducted since original construction at the point of the Incident?
 Yes ⇒ Most recent year tested: / / / / Test pressure (psig): / / / / /
 No

G6 – Equipment Failure– only one **sub-cause** can be selected from the shaded left-hand column

Malfunction of Control/Relief Equipment

1. Specify: *(select all that apply)*
 Control Valve Instrumentation
 SCADA
 Communications Block Valve
 Check Valve
 Relief Valve Power Failure
 Stopple/Control Fitting Pressure Regulator

 Other _____

Threaded Connection Failure

2. Specify: Pipe Nipple Valve Threads Threaded Pipe Collar
 Threaded Fitting Other _____

Non-threaded Connection Failure

3. Specify: O-Ring Gasket Other Seal or Packing

 Other _____

Valve

4. Specify: Manufacturing defect Other _____
 4a. Valve type: _____
 4b. Manufactured by: _____
 4c. Year manufactured: / / / / or Unknown
 4d. Valve Material: Steel Plastic Cast/Wrought Iron Ductile Iron
 Other, specify: *mandatory text*
 field _____

Other Equipment Failure

5. Describe:

G7 – Incorrect Operation – *only one **sub-cause** can be selected from the shaded left-hand

- Damage by Operator or Operator’s Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage**

- Valve Left or Placed in Wrong Position, but NOT Resulting in an Overpressure**

- Pipeline or Equipment Overpressured**

- Equipment Not Installed Properly**

- Wrong Equipment Specified or Installed**

- Other Incorrect Operation**

1. Describe: _____

Complete the following if any Incorrect Operation sub-cause is selected.

2. Was this Incident related to: *(select all that apply)*

- Inadequate procedure
- No procedure established
- Failure to follow procedure
- Other:* _____

3. What category type was the activity that caused the Incident:

- Construction
- Commissioning
- Decommissioning
- Right-of-Way activities
- Routine maintenance
- Other maintenance
- Normal operating conditions
- Non-routine operating conditions (abnormal operations or emergencies)

4. Was the task(s) that led to the Incident identified as a covered task in your Operator Qualification Program? Yes No

4a. If Yes, were the individuals performing the task(s) qualified for the task(s)?

- Yes, they were qualified for the task(s)
- No, but they were performing the task(s) under the direction and observation of a qualified individual
- No, they were not qualified for the task(s) nor were they performing the task(s) under the direction and observation of a qualified individual

G8 – Other Incident Cause – *only one **sub-cause** can be selected from the shaded left-hand column

Miscellaneous

1. Describe: _____

Unknown

2. Specify: Investigation complete, cause of Incident unknown

Mandatory comment field:

 Still under investigation, cause of Incident to be determined*
*(*Supplemental Report required)*

PART J – CONTRIBUTING FACTORS

The Apparent Cause of the accident is contained in Part G. Do not report the Apparent Cause again in this Part J. If Contributing Factors were identified, select all that apply below and explain each in the Narrative:

External Corrosion

- External Corrosion, Galvanic
- External Corrosion, Atmospheric
- External Corrosion, Stray Current Induced
- External Corrosion, Microbiologically Induced
- External Corrosion, Selective Seam

Internal Corrosion

- Internal Corrosion, Corrosive Commodity
- Internal Corrosion, Water drop-out/Acid
- Internal Corrosion, Microbiological
- Internal Corrosion, Erosion

Natural Forces

- Earth Movement, NOT due to Heavy Rains/Floods
- Heavy Rains/Floods
- Lightning
- Temperature
- High Winds
- Snow/Ice
- Tree/Vegetation Root

Excavation Damage

- Excavation Damage by Operator (First Party)
- Excavation Damage by Operator's Contractor (Second Party)
- Excavation Damage by Third Party
- Previous Damage due to Excavation Activity

Other Outside Force

- Nearby Industrial, Man-made, or Other Fire/Explosion
- Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation
- Damage by Boats, Barges, Drilling Rigs, or Other Adrift Maritime Equipment
- Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation
- Electrical Arcing from Other Equipment or Facility
- Previous Mechanical Damage NOT Related to Excavation
- Intentional Damage
- Other underground facilities buried within 12 inches of the failure location

Pipe/Weld Failure

- Design-related
- Construction-related
- Installation-related
- Fabrication-related
- Original Manufacturing-related

Equipment Failure

- Malfunction of Control/Relief Equipment
- Threaded Connection/Coupling Failure
- Non-threaded Connection Failure
- Valve Failure

Incorrect Operation

- Damage by Operator or Operator's Contractor NOT Excavation and NOT Vehicle/Equipment Damage
- Valve Left or Placed in Wrong Position, but NOT Resulting in Overpressure
- Pipeline or Equipment Overpressured
- Equipment Not Installed Properly
- Wrong Equipment Specified or Installed
- Inadequate Procedure
- No procedure established
- Failure to follow procedures

PART H – NARRATIVE DESCRIPTION OF THE INCIDENT (Attach additional sheets as necessary)

PART I – PREPARER AND AUTHORIZED PERSON

Preparer's Name (type or print)

Preparer's Title (type or print)

Preparer's E-mail Address

Local Contact Name: optional

Local Contact Email: optional

Local Contact Phone: optional

Authorized Signer

Authorized Signer's Title

Preparer's Telephone Number

Preparer's Facsimile Number

Authorized Signer Telephone Number

Authorized Signer's E-mail Address

GENERAL INSTRUCTIONS

Each operator of a gas distribution system shall file Form PHMSA F 7100.1 for an Incident that meets the criteria in 49 CFR §191.3 as soon as practicable but not more than 30 days after detection of the incident. Requirements for submitting reports are in §191.7 and §191.9.

Master meter operators are exempt from filing incident reports per §191.9(c).

The intentional and controlled release of gas for the purpose of maintenance or other routine operating activities need not be reported if the only reportable criterion is unintentional loss of gas of 3 million cubic feet or more as described in §191.3 under “Incident” (1)(iii).

Special considerations apply when a gas distribution system failure or release occurs that involves secondary ignition of the gas system. Secondary ignition is a fire where the origin of the fire is unrelated to the gas systems subject to Parts 191 or 192, such as electrical fires, arson, etc., and includes events where fire or explosion not originating from a gas distribution system failure or release was the primary *cause* of the gas distribution system failure or release, such as a house fire that subsequently resulted in – but was not caused by – a gas distribution system failure or release. An event caused by secondary ignition is not to be reported unless a release of gas escaping from facilities subject to regulation under Parts 191 or 192 results in one or more of the consequences as described in §191.3 under "Incident" (1). The determination of consequences from a gas distribution system Incident caused by secondary ignition, though, is an area of possible confusion when reporting Incidents. PHMSA is providing the following guidance for operators to use when secondary ignition is involved (sometimes referred to as “Fire First” incidents):

- A gas distribution system Incident attributed to secondary ignition is to be reported to PHMSA if any fatalities or injuries are involved unless it can be established with reasonable certainty that all of the casualties either preceded the gas distribution system failure or release or would have occurred whether or not the gas distribution system failure or release occurred.
- A gas distribution system Incident attributed to secondary ignition is NOT to be reported to PHMSA if the only reportable criterion is unintentional loss of gas of 3 million cubic feet or more as described in §191.3 under "Incident" (1)(iii).
- A gas distribution system Incident attributed to secondary ignition is NOT to be reported to PHMSA unless the damage to facilities subject to Parts 191 or 192 equals or exceeds the property damage reporting threshold in effect on the date of the incident.

These considerations apply to several gas distribution system Incident cause categories as indicated in pertinent sections of these instructions.

Form PHMSA F 7100.1 and these instructions can be found on <http://phmsa.dot.gov/pipeline/library/forms>. The applicable documents are listed in the section titled Accident/Incident/Annual Reporting Forms.

ONLINE REPORTING REQUIREMENTS

Instructions (rev 6-2023) for Form PHMSA F 7100.1 (rev 6-2023)
INCIDENT REPORT – GAS DISTRIBUTION SYSTEMS

Incident Reports must be submitted online through the PHMSA Portal at <https://portal.phmsa.dot.gov/portal>, unless an alternate method is approved (see Alternate Reporting Methods below). You will not be able to submit reports until you have met all of the Portal registration requirements – see <https://portal.phmsa.dot.gov/PHMSAPortal2/staticContentRedesign/howto/PortalAccountCreation.pdf>

Completing these registration requirements could take several weeks. Plan ahead and register well in advance of the report due date.

Use the following procedure for online reporting:

1. Go to the PHMSA Portal at <https://portal.phmsa.dot.gov/portal>
2. Enter PHMSA Portal Username and Password; press *enter*
3. Select OPID; press “*continue*” button.
4. On the left side menu under “Incident/Accident (2010 to present)” select “**ODES 2.0**”
5. Under “**Create Reports**” on the left side of the screen, select “Gas Distribution” and proceed with entering your data.
6. Click “**Submit**” when finished with your data entry to have your report uploaded to PHMSA’s database as an official submission of an Incident Report; or click “**Save**” which doesn’t submit the report to PHMSA but stores it in a draft status to allow you to come back to complete your data entry and report submission at a later time. *Note: The “Save” feature will allow you to start a report and save a draft of it which you can print out and/or save as a PDF to email to colleagues in order to gather additional information and then come back to accurately complete your data entry before submitting it to PHMSA.*
7. Once you click “**Submit**”, the system will check if all applicable portions of the report have been completed. If portions are incomplete, a listing of these portions will appear above the row of Parts. If all applicable portions have been completed, the system will show your Saved Incident/Accident Reports in the top portion of the screen and your Submitted Incident/Accident Reports in the bottom portion of the screen. *Note: To confirm that your report was successfully submitted to PHMSA, look for it in the bottom portion of the screen where you can also view a PDF of what you submitted.*

Supplemental Report Filing – Follow Steps 1 through 4 above and double-click a submitted report from the Submitted Incident/Accident Reports list. The report will default to a “Read Only” mode that is pre-populated with the data you submitted previously. To create a supplemental report, click on “Create Supplemental” found in the upper right corner of the screen. At this point, you can amend your data and make an official submission of the report to PHMSA as either a Supplemental Report or as a Supplemental Report *plus* Final Report (see “Specific Instructions, PART

A, Report Type”), or you can use the “**Save**” feature to create a draft of your Supplemental Report to be submitted at some future date.

Alternate Reporting Methods

Operators for whom electronic reporting imposes an undue burden and hardship may submit a written request for an alternate reporting method. Operators must follow the requirements in §191.7(d) to request an alternate reporting method and must comply with any conditions imposed as part of PHMSA’s approval of an alternate reporting method.

RETRACTING A 30-DAY WRITTEN REPORT

An operator who reports an incident in accordance with §191.9 (oftentimes referred to as a 30-day written report) and upon subsequent investigation determines that the event did not meet the criteria in §191.3 may request that their report be retracted. Requests to retract a 30-day written report are to be emailed to InformationResourcesManager@dot.gov. Requests are to include the following information:

- a. The Report ID (the unique 8-digit identifier assigned by PHMSA)
- b. Operator name
- c. PHMSA-issued OPID number
- d. The number assigned by the National Response Center (NRC) when an immediate notice was made in accordance with §191.5. If Supplemental Reports were made to the NRC for the event, list all NRC report numbers associated with the event.
- e. Date of the event
- f. Location of the event
- g. A brief statement as to why the report should be retracted.

Note: PHMSA no longer requests that operators rescind erroneously reported “Immediate Notices” filed with the NRC in accordance with §191.5 (oftentimes referred to as “Telephonic Reports”).

SPECIAL INSTRUCTIONS

All applicable data fields must be completed before an Original Report will be accepted. Your Original Report cannot be submitted online until the required information has been provided, although your partially completed report can be saved online so that you can return at a later time to provide the missing information.

1. An entry should be made in each applicable space or check box, unless otherwise directed by the section instructions.
2. If the data is unavailable, enter “Unknown” for text fields and leave numeric fields and fields using check boxes or “radio” buttons blank.

Instructions (rev 6-2023) for Form PHMSA F 7100.1 (rev 6-2023)
INCIDENT REPORT – GAS DISTRIBUTION SYSTEMS

3. Estimate data only if necessary. Provide an estimate in lieu of answering a question with “Unknown” or leaving the field blank. Estimates should be based on best-available information and reasonable effort.
4. For unknown or estimated data entries, the operator should file a Supplemental Report when additional or more accurate information becomes available.
5. If the question is not applicable, enter “N/A” for text fields and leave numeric fields and fields using check boxes or “radio” buttons blank. Do not enter zero unless this is the actual value being submitted for the data in question.
6. If **OTHER** is checked for any answer to a question, include an explanation or description in the text field provided, making it clear why “Other” was the necessary selection.
7. Pay close attention to each question for the phrase:
 - a. *(select all that apply)*
 - b. *(select only one)*If the phrase is not provided for a given question, then “select only one” applies. “Select only one” means that you should select the single, primary, or most applicable answer. **DO NOT SELECT MORE ANSWERS THAN REQUESTED.** “Select all that apply” requires that all applicable answers (one or more than one) be selected.
8. **Date format** = mm/dd/yyyy
9. **Time format:** All times are reported as a 24-hour clock:

Time format Examples:

- a. (0000) = midnight = /0/0/0/0/
- b. (0800) = 8:00 a.m. = /0/8/0/0/
- c. (1200) = Noon = /1/2/0/0/
- d. (1715) = 5:15 p.m. = /1/7/1/5/
- e. (2200) = 10:00 p.m. = /2/2/0/0/

Local time always refers to time at the site of the incident. Note that time zones at the incident site may be different than the time zone for the person discovering or reporting the event. For example, if a release occurs at an gas distribution system facility in Denver, Colorado at 2:00 pm MST, but a supervisor located in Houston is filing the report after having been notified at 3:00 pm CST, the time of the incident should be reported as 1400 hours based on the time in Denver, which is the physical site of the incident.

SPECIFIC INSTRUCTIONS

PART A – KEY REPORT INFORMATION

Report Type: (select all that apply)

Check the appropriate report box or boxes to indicate the type of report being filed. Depending on the descriptions below, the following combinations of boxes – and only one of these combinations - may be selected:

- Original Report only
- Original Report *plus* Final Report
- Supplemental Report only
- Supplemental Report *plus* Final Report

Original Report

Select if this is the FIRST report filed for this Incident and **you expect that additional or updated information will be provided later.**

Original Report *plus* **Final Report**

Select **both** Original Report and Final Report if ALL of the information requested is known and can be provided at the time the initial report is filed, including final property damage costs and apparent failure cause information. If new, updated, and/or corrected information becomes available, you are still able to file a Supplemental Report.

Supplemental Report

Select only if you have already filed an Original Report AND you are now providing new, updated, and/or corrected information. Multiple Supplemental Reports are to be submitted, as necessary, in order to provide new, updated, and/or corrected information ***when it becomes available*** and, per §191.9(b), each Supplemental Report containing new, updated, and/or corrected information is to be filed as soon as practicable. Submission of new, updated, and/or corrected information is NOT to be delayed in order to accumulate “enough” to “warrant” a Supplemental Report, or to complete a Final Report. ***Supplemental Reports must be filed as soon as practicable following the Operator’s awareness of new, updated, and/or corrected information.*** Failure to comply with these requirements can result in enforcement actions, including the assessment of civil penalties as provided in 49 USC 60122.

For Supplemental Reports filed online, all data previously submitted will automatically populate in the form. Page through the form to make edits and additions where needed.

Supplemental Report *plus* **Final Report**

If an Original Report has already been filed AND new, updated, and/or corrected information is now being submitted via a Supplemental Report, AND the operator is reasonably certain that no further information will be forthcoming, then Final Report is to also be selected along with Supplemental Report. (See also the requirements stated above under “Supplemental Report”.)

A1. Operator’s OPS -Issued Operator Identification Number (OPID)

For online entries, the OPID will automatically populate based on the selection you made when entering the Portal. If you have log-in credentials for multiple OPID, be sure the report is being created for the appropriate OPID. Contact PHMSA’s Information Resources Manager at 202-366-8075 if you need assistance with an OPID. Business hours are 8:30 AM to 5:00 PM Eastern Time.

A2. Name of Operator

This is the company name associated with the OPID. For online entries, the name will automatically populate based on the OPID entered in A1. If the name that appears is not correct, you need to submit an Operator Name Change (Type A) Notification.

A3. Address of Operator

For online entries, the headquarters address will automatically populate based on the OPID entered in A1. If the address that appears is not correct, you need to change it in the online Contacts module.

A4. Local time (24-hour clock) and date of incident

Enter the *earliest* of the following:

 estimate of the time/date when the release of commodity began; ***or***
 time/date that personal injury or damage to property first occurred rather than the
time/date the consequences are quantified.

In most cases, this time/date will be nearly the same as when the operator identified the failure, which is reported in A13. In some cases, this date/time will be prior to the operator’s identification of the failure and must be estimated based on information gathered during the investigation. For example, the operator will need to estimate the time/date that the release began for large leaks that are not detected remotely and do not impact people or property.

See “Special Instructions”, numbers 8 and 9 for examples of **Date format** and **Time format** expressed as a 24-hour clock.

A4a. Select the local time zone where the Incident occurred (select only one).

A4b. Select “Yes” if Daylight Saving was in effect at the time of the Incident, or “No” if it was not.

A5. Location of Incident

- a. Provide the street address of the incident (enter “unknown” if no street address)
- b. Provide the name of the city where the incident occurred. If the incident did not occur within a municipality, select Not Within Municipality in the City field.
- c. Provide the name of the county or parish where the incident occurred.
- d. Enter the 2-digit state abbreviation where the incident occurred.
- e. Enter the zip code where the incident occurred.
- f. The latitude and longitude of the incident are to be reported as Decimal Degrees with a minimum of 5 decimal places (e.g. Lat: 38.89664; Long: -77.04327), using the NAD83 or WGS84 datums.

If you have coordinates in degrees/minutes or degrees/minutes/seconds use the formula below to convert to decimal degrees:

$$\text{degrees} + (\text{minutes}/60) + (\text{seconds}/3600) = \text{decimal degrees}$$

e.g. $38^{\circ} 53' 47.904'' = 38 + (53/60) + (47.904/3600) = 38.89664^{\circ}$

All locations in the United States will have a negative longitude coordinate, **which has already been included on the data entry form so that operators do not have to enter the negative sign.**

If you cannot locate the incident with a GPS or some other means, there are online tools that may assist you at <http://viewer.nationalmap.gov/viewer/>. Any questions regarding the required format, conversion, or how to use the tools noted above can be directed to Amy Nelson (202-493-0591 or amy.nelson@dot.gov).

A6. Gas released:

Select the type of gas released. An example of **Synthetic Gas** is manufactured gas based on naphtha. **Landfill Gas** includes biogas.

A7. Estimated volume of gas released unintentionally

Estimate the amount of gas that was released (in thousands of standard cubic feet, mcf) from the beginning of the incident until such time as gas is no longer being released from the gas distribution system or until intentional and controlled blowdown has commenced. Estimates are to be based on best-available information. *Important Note: Volumes consumed by fire and/or explosion are to be included in the estimated volume reported.*

A8. Estimated volume of intentional and controlled release/blowdown

Estimate the amount of gas that was released (in thousands of standard cubic feet, mcf) during any intentional release or controlled blowdown conducted as part of responding to or recovering from the Incident. Intentional and controlled blowdown implies a level of control of the site and situation by the operator such that the area and the public are protected during the controlled release. *Important Note: Volumes consumed by fire and/or explosion are to be included in the estimated volume reported.*

A9. Were there fatalities?

Select “Yes” or “No” and if “Yes” is selected, enter the number of fatalities resulting from the Incident for A9a through e as applicable.

If a person dies at the time of the incident or within 30 days of the initial incident date due to injuries sustained as a result of the incident, report as a fatality. If a person dies subsequent to an injury more than 30 days past the incident date, report as an injury. (Note: This aligns with the Department of Transportation's general guidelines for all jurisdictional modes for reporting deaths and injuries.)

Contractor employees working for the operator are individuals hired to work for or on behalf of the operator of the gas distribution system. These individuals are not to be reported as “Operator employees”.

Non-Operator emergency responders are individuals responding to render professional aid at the incident scene including on-duty and volunteer fire fighters, rescue workers, EMTs, police officers, etc. “Good Samaritans” that stop to assist are to be reported as “General public.”

Workers Working on the Right of Way, but NOT Associated with this Operator means people authorized to work in or near the right-of-way, but not hired by or working on behalf of the operator of the gas distribution system. This includes all work conducted within the right-of-way including work associated with other underground facilities sharing the right-of-way, building/road construction in or across the right-of-way, or farming. This category most often includes employees of other underground facilities operators, or their contractors, working in or near a shared right-of-way. For distribution pipelines not located in a defined right-of-way, this category should be left blank. Workers performing work near, but not on, the right-of-way and who are affected are to be reported as “General public”.

A10. Were there injuries requiring inpatient hospitalization?

Select “Yes” or “No” and if “Yes” is selected, enter the number of injured persons resulting from the Incident for A10a through e as applicable.

Injuries requiring inpatient hospitalization are injuries sustained as a result of the incident and requiring hospital admission *and* at least one overnight stay.

See Question A9 for additional definitions that apply.

A11. What was the Operator’s initial indication of the Failure? (select only one)

Select the best option to describe the manner in which the operator first became aware of a failure resulting in this reported Incident.

Controller means a qualified individual whose function within a shift is to remotely monitor and/or control the operations of entire or multiple sections of distribution pipelines or systems via a SCADA system from a control room, and who has operational authority and accountability for the daily remote operational functions of gas distribution systems.

Local Operating Personnel including contractors means employees or contractors working on behalf of the operator outside the control room.

A11a. If the Incident was identified by Operator’s personnel or a contractor working for the Operator (including controller, air and ground patrols) in A11, identify if it was by an Operator employee, or a contractor working for the Operator.

A12. When did the operator identify the failure?

Enter the date/time the operator’s initial indication of the failure reported in A11.

A13 -15 Operator Communication with Local, State, or Federal Emergency Responders

In an Advisory Bulletin dated October 11, 2012, PHMSA reminded Operators of the need to communicate with Emergency Responders in the early stages of a potential Incident. This is typically accomplished by contacting Public Safety Access Points (PSAPs) along the pipeline route. The purpose of the communication is to assist in the identification, location, and planning for response to pipeline Incidents through coordination and information sharing.

Indicate in 13 if the Operator communicated with Local, State, or Federal Emergency Responders about the Incident, identify who initiated the communication about the Incident in 14, and enter the Local date and time of the initial communication in 15.

A16. What time did Operator resources arrive on site?

Enter the date/time operator responders, company or contract, arrived on site. This time is to be shown by 24-hour clock notation and reported in the time in the time zone where the incident occurred. (See “Special Instructions”, numbers 8 and 9 and 10.) PHMSA will use this data to calculate incident response times.

A17. Enter local time and date of Confirmed Discovery as defined in 49 CFR §191.3.

A18. Local time (24-hr clock) and date of initial operator report to the National Response Center

Enter the time and date of the initial Immediate Notice of incident to the NRC submitted by the operator. The time is to be shown by 24-hour clock notation and is to reflect the time in the time zone where the incident was physically located. (See “Special Instructions”, numbers 8 and 9.)

A19. National Response Center (NRC) Report Number

§191.5 requires that incidents meeting the criteria outlined in §191.3 be reported directly to the **24-hour National Response Center (NRC) at 1-800-424-8802** at the earliest practicable moment. The NRC assigns numbers to each call. The number assigned to Initial Immediate Notice

(sometimes referred to as the “Telephonic Report”) is to be entered in Question 19. When there is more than one NRC report for the incident, enter the Initial report in this field and remaining NRC report numbers in A19a. If a NRC report was not made, select NRC Notification Required But Not Made.

A19a. Additional NRC Report Numbers

If the operator made more than one call to the NRC, enter each additional NRC report number.

A20. Method of Flow Control (select all that apply)

The response to gas distribution pipeline emergencies may involve several methods of controlling flow to the failure location. Select all methods of flow control used during response to the incident.

A21. Did the Gas Ignite?

Ignite means the released gas caught fire or a conflagration, detonation or explosion occurred, even if there was no residual fire after the initial ignition event.

If the answer is “Yes,” complete questions A21a through d.

A21a. Enter the time and date of the ignition. The time is to be shown by 24-hour clock notation in the time zone where the Incident occurred.

A21b. Indicate how the fire was extinguished.

A21c. Estimate volume of gas consumed by fire in thousands of standard cubic feet, MCF

A21d. Did the Gas Explode?

Explode means the ignition of the released gas occurred with a sudden and violent release of energy.

A22. Number of general public evacuated

The number of people evacuated is to be estimated based on operator knowledge, or police, fire department, or other emergency responder reports. If there was no evacuation involving the general public, report zero (0). If an estimate is not possible for some reason, leave the field blank but include an explanation of why it was not possible to provide a number in PART H – Narrative Description of the Incident.

PART B – ADDITIONAL LOCATION INFORMATION

1. Was the incident on Federal Land?

Federal Lands means all lands the United States owns, including military reservations, except lands in National Parks and lands held in trust for Native Americans. Incidents at Federal buildings, such as Federal Court Houses, Custom Houses, and other Federal office buildings and warehouses, are NOT to be reported as being on Federal Lands.

2. Location of incident

Operator-controlled property would normally apply to an operator’s facility, which may or may not have controlled access, but which is oftentimes fenced or otherwise marked with discernible boundaries. This “operator-controlled property” does not refer to the pipeline right-of-way/easement, which is a separate choice for this question.

3. Area of incident

This refers to the location on the gas distribution system at which gas was released, resulting in the incident. It does not refer to adjacent locations in which released gas may have accumulated or ignited.

Underground means pipe, components, or other facilities installed below the natural ground level, road bed, or below the underwater natural bottom.

Under pavement includes under streets, sidewalks, paved roads, driveways, and parking lots.

Exposed due to Excavation means that a normally buried facility had been exposed by any party (operator, operator’s contractor, or third party) preparatory to or as a result of excavation. The cause of the release, however, may or may not necessarily be related to excavation damage. This category could include a corrosion leak not previously evidenced by stained vegetation, but found during excavation, or a release caused by a non-excavation vehicle where contact happened to occur while the facility was exposed for excavation repair or examination. Natural forces might also damage a facility that happened to be temporarily exposed. In each case, the cause is to be appropriately reported in PART G of this form.

Exposed due to Loss of Cover means that a normally buried facility had been exposed due to a cause other excavation activities. For example, natural forces might cause a facility that had been installed underground to become exposed.

Aboveground means pipe, components, or other facilities that are above the natural grade.

Typical aboveground facility piping includes any pipe or components installed aboveground such as those at regulating stations or valve sites.

Transition area means the junction of differing material or media between pipes, components, or facilities such as those installed at a belowground-aboveground junction (soil/air interface), another environmental interface, or in close contact to supporting elements such as those at water crossings and meter stations.

If B3. is Underground, enter the depth of cover as found in B3a. and indicate whether other underground facilities were found within 12 inches of the failure location in B3b.

4. Did Incident occur in a crossing?

Use **Bridge Crossing** if the pipeline is suspended above a body of water or roadways, railroad right-of-way, etc. either on a separately designed pipeline bridge or as a part of or connected to a road, railroad, or passenger bridge.

Use **Railroad Crossing** or **Road Crossing**, as appropriate, if the pipeline is buried beneath rail bed or roadbed.

Use **Water Crossing** if the pipeline is in the water, beneath the water, in contact with the natural ground of the lake bed, etc., or buried beneath the bed of a lake, reservoir, stream, or creek, whether the crossing happens to be flowing water at the time of the incident or not. The name of the body of water is to be provided if it is commonly known and understood among the local population. (The purpose of this information is to allow persons familiar with the area in which the incident occurred to identify the location and understand it in its local context. Research to identify names that are not commonly used is not necessary since such names would not fulfill the intended purpose. If a body of water does not have a name that is commonly used and understood in the local area, this field may be left blank). For **Approximate Water Depth (ft)** of the lake, reservoir, etc., estimate the typical water depth at the location and time of the incident, ignoring seasonal, weather-related, and other factors which may affect the water depth from time to time. Finally, specify the part of the water crossing where the failure occurred.

PART C – ADDITIONAL FACILITY INFORMATION

C1. Indicate the type of pipeline system:

Designate the type of gas distribution system on which the incident occurred.

C2. Part of system involved in Incident

This should be the part of the system principally involved in the incident, from which gas was released resulting in reportable consequences. If the failure occurred on an item not provided in this section, select “Other” and specify in the space provided the item involved in the incident.

C2a. Year Installed Enter the year the item involved in the incident was installed.

C2b. Year Manufactured Enter the year the item involved in the incident was manufactured.

When C2. is any value other than “Main”, “Main Valve”, “District Regulator/Metering Station”, or “Other”, answer 2c through 2f.

C2c. Customer Type Select only one. Customer Types are:

Single Family - residential building designed for a single family

Multi-Family - residential dwellings such as apartments, town homes, and duplexes

Industrial – customers manufacturing products

Commercial – retail and wholesale sales customers, including hospitals, schools, and other government affiliated customers

C2d. EFV Installed Had an Excess Flow Valve (EFV) been installed on the service line before the time of the failure? If Yes:

C2e. EFV Activation Did the EFV activate in response to the failure? If you are unable to determine if the EFV activated, select “unable to determine.”

C2f. Curb Valve Installed Had a curb valve been installed on the service line before the time of the failure? Curb valves are manually operated valves located near the main.

C3. When “Main” or “Service” is selected in C2., answer C3a. through c:

C3a. Nominal Pipe Size (NPS) For pipe greater than 5 inches in diameter, enter only the integer portion of the diameter value; for example, 8-5/8 pipe has a nominal pipe size of 8. For pipe less than 5 inches in diameter, the NPS may include decimals to three places. For more details, see http://en.wikipedia.org/wiki/Nominal_Pipe_Size

C3b. Pipe Specification is the specification to which the pipe or component was manufactured, such as API 5L or ASTM A106.

C3c. Pipe Manufacturer Enter the name of the company that manufactured the pipe.

C4. Material involved in incident:

Identify the type of material involved and provide additional information as indicated.

C5. Type of release involved:

Mechanical puncture means a puncture of the facility, typically by a piece of equipment such as would occur if the facility were pierced by directional drilling or a backhoe bucket tooth. Not all excavation-related damage will be a “mechanical puncture.” (Precise measurement of size – e.g., micrometer – is not needed. Approximate measurements can be provided in inches and one decimal.)

Leak means a failure resulting in an unintentional release of gas that is often small in size, usually resulting a low flow release of low volume, although large volume leaks can and do occur on occasion.

Rupture means a loss of containment that immediately impairs the operation of the gas distribution system or facility. Facility ruptures often result in a higher flow release of larger volume. The terms “circumferential” and “longitudinal” refer to the general direction or orientation of the rupture relative the pipe’s axis. They do not exclusively refer to a failure involving a circumferential weld such as a girth weld, or to a failure involving a longitudinal weld such as a pipe seam. (Precise measurement of size – e.g., micrometer – is not needed. Approximate measurements can be provided in inches and one decimal.)

PART D – ADDITIONAL CONSEQUENCE INFORMATION

D2. Estimated Property Damage

All relevant costs available at the time of submission must be included in the initial written Incident Report as well as being updated as needed on Supplemental Reports. This includes (but is not limited to) costs due to property damage to the operator’s facilities and to the property of others, facility repair and replacement, gas distribution service restoration and relighting, leak locating, and environmental cleanup and damage. Do NOT include cost of gas lost. Additionally, do NOT include costs incurred for facility repair, replacement, or changes that are NOT related to the incident and which are typically done solely for convenience. An example of doing work solely for convenience is working on non-leaking facilities unearthed because of the incident. Litigation and other legal expenses related to the incident are not reportable.

Operators are to report costs based on the best estimate available at the time a report is submitted. It is likely that an estimate of final repair costs may not be available when the initial report must be submitted (30 days, per §191.9). The best available estimate of these costs is to be included in the initial report. For convenience, this estimate can be revised, if needed, when Supplemental Reports are filed for other reasons, however, when no other changes are forthcoming, Supplemental Reports are to be filed as new cost information becomes available. If Supplemental Reports are not submitted for other reasons, a Supplemental Report is to be filed for the purpose of updating or correcting the estimated cost if these costs differ from those already reported by 20 percent or \$20,000, whichever is greater.

D2a. Public and non-operator private property damage estimates generally include physical damage to the property of others, the cost of investigation and remediation of a site not owned or operated by the Company, laboratory costs, third party expenses such as engineers or scientists, and other reasonable costs, excluding litigation and other legal expenses related to the incident.

D2b. Operator’s property damage & repairs estimates generally include physical damage to the property of Operator or Owner Company such as the estimated installed value of the damaged pipe, coating, component, materials, or equipment due to the incident, excluding the cost of any gas lost. Also to be excluded are litigation and other legal expenses related to the incident.

When estimating the **Cost of repairs** to company facilities, the standard shall be the cost necessary to safely restore property to its predefined level of service. Property damage estimates include the cost to access, secure, excavate, and repair the facility using methods, materials, and labor necessary to re-establish operations at a predetermined level. These costs may include the cost of

repair sleeves or clamps, re-routing of piping, or the removal from service of an appurtenance or facility component. When more comprehensive repairs or improvements are justified but not required for continued operation, the cost of such repairs or replacement is not attributable to the incident. Costs associated with improvements to the gas distribution system to mitigate the risk of future failures are not included.

D2c. Emergency response includes emergency response operations necessary to return the incident site to a safe state, actions to minimize the volume of gas released, conduct reconnaissance, and to identify the extent of incident impacts. They include materials, supplies, labor, and benefits. If you reimbursed local, state, or federal emergency responders, include these amounts. Costs related to stakeholder outreach, media response, etc. are not to be included.

D2d. Other costs are to include any and all costs which are not included above. Cost of any gas lost is NOT to be reported here, but is to be reported under **Cost of Gas Released**. Operators are to NOT use this category to report any costs which belong in cost categories separately listed above.

Costs are to be reported in only one category and are not to be double counted. Costs can be split between two or more categories when they overlap more than one reporting category.

Cost of Gas Released – enter your gas cost, excluding taxes, in dollars per thousand standard cubic feet (mcf). The cost of gas released will be calculated based on the volumes reported in A7 and A8.

D3. Estimated number of customers out of service:

Count number of individual services in each category that were affected, not number of persons served.

Injured persons not included in A10. The number of persons injured, admitted to a hospital, and remaining in the hospital for at least one overnight are reported in A10. *If a person is included in A10, do not include them in D4.*

D4. Estimated number of persons with injuries requiring treatment in a medical facility but not requiring overnight in-patient hospitalization.

If a person is included in D4, do not include them in D5.

D5. Estimated number of persons with injuries requiring treatment by EMTs at the site of incident.

Buildings Affected The term ‘affected’ means the building was either damaged and required repair, or evacuated, or had gas service interrupted.

D6. Enter the number of residential buildings affected.

D7. Enter the number of commercial and industrial buildings affected.

PART E – ADDITIONAL OPERATING INFORMATION

E2. Normal operating pressure at point and time of the incident (psig)

If the normal operating pressure of a distribution system varies throughout the year (e.g., seasonally), report the normal operating pressure at the time the incident occurred.

E3a. MAOP Established By Select the response serving as the limiting factor for establishing MAOP at the incident site. A short explanation of each option is:

§ 192.619 (paragraph)	Methodology Description
(a)	<i>Introduction: Except as specified in (c), use the lowest MAOP determined by (a)(1), (a)(2), (a)(3), (a)(4).</i>
(a)(1)	Design Pressure
(a)(2)	Post-Construction Pressure Test
(a)(3)	High Actual Operation Pressure during 5 years preceding July 1, 1970 – this is NOT the Grandfather Clause
(a)(4)	History of Pipe (primarily corrosion and actual operating pressure)
(c)	Grandfather Clause – Highest Actual Operating Pressure during five years preceding 1970, even if this MAOP is higher than MAOPs determined by other (a) methods
§192.621	Maximum allowable operating pressure: High-pressure distribution systems
§192.623	Maximum and minimum allowable operating pressure; Low-pressure distribution systems

E3b. MAOP Date Enter the date the MAOP in E3a. was established.

E4. Operating Pressure and MAOP Select the option that describes the relationship among the operating pressure at the point and time of the incident, the MAOP, and the allowances in §192.201.

E5. Odorization Type Select the one option that best describes the odorization system(s) affecting gas at the point of failure.

E6. Odorant Level Enter the odorant level in, % LEL, as measured near the failure site or indicate that no measurement was done.

E7. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the incident?

This does not mean a system designed or used exclusively for leak detection.

E7a. Was it operating at the time of the Incident?

Was the SCADA system in operation at the time of the incident?

E7b. Was it fully functional at the time of the Incident?

Was the SCADA system capable of performing all of its functions, whether or not it was actually in operation at the time of the incident? If no, describe functions that were not operational in PART H – Narrative Description of the Incident.

E7c and d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume or pack calculations) assist with the detection or confirmation of the Incident?

Select Yes if SCADA-based information was used to confirm the incident even if the initial report or identification may have come from other sources. Use of SCADA data for subsequent estimation of amount of gas lost, etc. is not considered use to confirm the incident.

Select No if SCADA-based information was not used to assist with identification of the incident.

E8. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Incident?

Select only one of the choices to indicate whether an investigation was/is being conducted (Yes) or was not conducted (No). If an investigation has been completed, select all the factors that apply in describing the results of the investigation.

Cause means an action or lack of action that directly resulted in the gas distribution system incident.

Contributing factor means an action or lack of action that when added to the existing circumstances heightened the likelihood of the release or added to the impact of the release.

Controller Error means that the controller failed to identify a circumstance indicative of a release event, such as an abnormal operating condition, alarm, pressure drop, change in flow rate, or other similar event.

Incorrect Controller action means that the controller errantly operated the means for controlling an event. Examples include opening or closing the wrong valve or hitting the wrong switch or button.

PART F – DRUG & ALCOHOL TESTING INFORMATION

Requirements for post-accident drug and alcohol tests are in 49 CFR §199.105 and §199.225 respectively. If the incident circumstances were such that tests were not required by these sections, and if no tests were conducted, select No. If tests were administered, select Yes and report separately the number of operator employees and contractors working for the operator who were tested and the number of each that failed such tests.

PART G – APPARENT CAUSE

PART G – Apparent Cause

Select the one, single sub-cause listed under sections G1 thru G8 that best describes the apparent cause of the Incident. These sub-causes are contained in the shaded column on the left under each main cause category. Answer the corresponding questions that accompany your selected sub-cause, and enter secondary, contributing, or root causes of the Incident in PART J – Contributing Factors.

G1 – Corrosion Failure

Corrosion includes a release or failure caused by galvanic, atmospheric, stray current, microbiological, or other corrosive action. A corrosion release or failure is not limited to a hole in the pipe or other piece of equipment. If the bonnet or packing gland on a valve or flange on piping deteriorates or becomes loose and leaks due to corrosion and failure of bolts, it is classified as Corrosion. (Note: If the bonnet, packing, or other gasket has deteriorated to failure, whether before or after the end of its expected life, but not due to corrosive action, report it under a different cause category, such as G7 Incorrect Operation for improper installation or G6 - Equipment Failure if the gasket failed.)

External Corrosion

4a. Under cathodic protection means cathodic protection in accordance with §192.455, §192.457, and §192.463. Recognizing that older facilities may have had cathodic protection added over a number of years, provide an estimate if exact year cathodic protection started is unknown.

Internal Corrosion

10. Location of corrosion

A **low point in pipe** includes portions of the pipe contour in which water might settle out. This includes, but is not limited to, the low point of vertical bends at a crossing of a foreign line or road/railroad, etc., an elbow, a drop out or low point drain.

11. Was the gas/fluid treated with corrosion inhibitors or biocides?

Select Yes if corrosion inhibitors or biocides were included in the gas/fluid transported.

Either External or Internal Corrosion

14. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident?

Information from the initial post-construction hydrostatic test is not to be reported.

G2 – Natural Force Damage

Natural Force Damage includes a release or failure resulting from earth movement, earthquakes, landslides, subsidence, lightning, heavy rains/floods, washouts, flotation, mudslide, scouring, temperature, frost heave, frozen components, high winds, or similar natural causes.

Earth Movement NOT due to Heavy Rains/Floods refers to incidents caused by land shifts such as earthquakes, landslides, or subsidence, but not mudslides which are presumed to be initiated by heavy rains or floods.

Heavy Rains/Floods refer to all water-related natural force causes. While mudslides involve earth movement, report them here since typically they are an effect of heavy rains or floods.

Lightning includes both damage and/or fire caused by a direct lightning strike and damage and/or fire as a secondary effect from a lightning strike in the area. An example of such a secondary effect would be a forest fire started by lightning that results in damage to a gas distribution system asset which results in an incident. (See also the discussion of “secondary ignition” under the *General Instructions*.)

Temperature includes weather-related temperature and thermal stress effects, either heat or cold, where temperature was the initiating cause.

Thermal stress refers to mechanical stress induced in a pipe or component when some or all of its parts are not free to expand or contract in response to changes in temperature.

Frozen components would include incidents where components are inoperable because of freezing and those due to cracking of a piece of equipment due to expansion of water during a freeze cycle.

High Winds includes damage caused by wind induced forces. Select this category if the damage is due to the force of the wind itself. Damage caused by impact from objects blown by wind are to be reported under section G4 - Other Outside Force Damage.

Tree/Vegetation Root includes damages when tree and vegetation roots caused damage to the gas distribution system asset which results in an incident.

Snow/Ice Impact or Accumulation includes damages when snow or ice accumulation or impact caused damage to the gas distribution system asset which results in an incident.

Other Natural Force Damage. Select this sub-cause for types of Natural Force Damage not included otherwise and describe in the space provided. If necessary, provide additional explanation in PART H – Narrative Description of the Incident.

Answer 6a if the incident occurred in conjunction with an extreme weather event. If the extreme weather was something other than those listed, indicate Other and describe the event in the space provided.

G3 – Excavation Damage

Excavation Damage includes a release or failure resulting directly from excavation damage by operator's personnel (oftentimes referred to as “first party” excavation damage) or by the operator’s contractor (oftentimes referred to as “second party” excavation damage) or by people or contractors not associated with the operator (oftentimes referred to as “third party” excavation damage). Also, this section includes a release or failure determined to have resulted from previous damage due to excavation activity. For damage from outside forces OTHER than excavation which results in a release, use G2 - Natural Force Damage or G4 - Other Outside Force, as appropriate. Also, for a strike, physical contact, or other damage to a gas distribution system or facility that apparently was NOT related to excavation and that results in a delayed or eventual release, report the incident under G4 as “Previous Mechanical Damage NOT related to Excavation.”

Excavation Damage by Operator (First Party) refers to incidents caused as a result of excavation by a direct employee of the operator.

Excavation Damage by Operator’s Contractor (Second Party) refers to incidents caused as a result of excavation by the operator’s contractor or agent or other party working for the operator.

Excavation Damage by Third Party refers to incidents caused by excavation damage resulting from actions by personnel or other third parties not working for or acting on behalf of the operator or its agent.

Previous Damage due to Excavation Activity refers to incidents that were apparently caused by prior excavation activity and that then resulted in a delayed or eventual release. Indications of prior excavation activity might come from the condition of the pipe when it is examined, or from records of excavation at the site, or through metallurgical analysis or other inspection and/or testing methods. Dents and gouges in the 10:00-to-2:00 o’clock positions on the pipe, for instance, may indicate an earlier strike, as might marks from the bucket or tracks of an earth moving machine or similar pieces of equipment.

2. Has one or more pressure test been conducted since original construction at the point of the incident?

Information from the initial post-construction hydrostatic test is not to be reported.

If any Excavation Damage sub-cause is selected, answer questions 3 through 16.

3. and 3a. Prior Notification Indicate whether you received prior notification of the excavation activity. If yes, indicate all of the notification sources.

3b. through 3e. One-Call State Law Exemptions Per the primary Incident Investigator results, indicate whether State law exempted the excavator from notifying a one-call center. If yes, select the type of exemption from the list. If “Other” is selected, enter text describing the exemption. Describe the exempting authority and exempting criteria.

5. – 16. Instructions for answering these questions can be found at <https://www.phmsa.dot.gov/operator-resources/damage-information-reporting-tool-dirt-users-guide>

NOTE: If you have or will be reporting the information in questions 5 thru 16 to CGA-DIRT, select “No” in question 4 to avoid duplication of data submitted to CGA.

G4 – Other Outside Force Damage

Other Outside Force Damage includes, but are not limited to, a release or failure resulting from non-excavation-related outside forces, such as nearby industrial, man-made, or other fire or explosion; damage by vehicles or other equipment; failures due to mechanical damage; and intentional damage including vandalism and terrorism.

Nearby Industrial, Man-made or Other Fire/Explosion as Primary Cause of Incident applies to situations where the fire occurred before - and *caused* - the release. (See also the discussion of “secondary ignition” under the *General Instructions*.) Examples of such an incident would be an explosion or fire that originated at a house or neighboring installation (chemical plant, tank farm, or other industrial facility) or structure, debris, or brush/trees that results in a release at the operator’s gas distribution system or facility. This includes forest, brush, or ground fires that are caused by human activity. If the fire, however, is known to have been started as a result of a lightning strike, the incident’s cause is to be classified under G2 - Natural Force Damage. Arson events directed at harming the gas distribution system or the operator are to be reported as G4 - Intentional Damage (see below).

Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation. An example of this sub-cause would be damage to a meter set caused by vehicle impact. Other motorized vehicles or equipment include tractors, backhoes, bulldozers and other tracked vehicles, and heavy equipment that can move. Include under this sub-cause incidents caused by vehicles operated by the gas distribution system operator, the gas distribution system’s contractor, or a third party and specify the vehicle/equipment operator’s affiliation from one of these three groups. Gas distribution system incidents resulting from vehicular traffic loading or other contact are to also be reported in this category. If the activity that caused the incident involved digging, drilling, boring, grading, cultivation, or similar excavation activities, report under G3 - Excavation Damage.

Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring. This sub-cause includes impacts by maritime equipment or vessels (including their anchors or anchor chains or other attached equipment) that have lost their moorings and are carried into the gas distribution system or facility by the current. This sub-cause also includes maritime equipment or vessels set adrift as a result of severe weather events and carried into the gas distribution system or facility by waves, currents, or high winds. In such cases, also indicate the type of severe weather event. Do NOT report in this sub-cause incidents which are caused by impact of maritime equipment or vessels while they are engaged in their normal or routine activities; such incidents are to be reported as “Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation” under this section G4 (see below) so long as those activities are not excavation activities. If those activities are excavation activities such as dredging or bank stabilization or renewal, the incident is to be reported under G3 - Excavation Damage.

Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation. This sub-cause includes incidents due to shrimping, purseining, oil drilling, or oilfield workover rigs, including anchor strikes, and other routine or normal maritime-related activities UNLESS the movement of the maritime asset was inadvertent and due to a severe weather event (this type of incident is to be reported under “Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring” in this section G4); or, the incident was caused by excavation activity such as dredging of waterways or bodies of water (this type of incident is to be reported under G3 - Excavation Damage”).

Electrical Arcing from Other Equipment or Facility such as a pole transformer or adjacent facility’s electrical equipment.

Previous Mechanical Damage NOT Related to Excavation. This sub-cause covers incidents where damage occurred at some time prior to the release that was apparently NOT related to excavation activities and would include prior outside force damage of an unknown nature, prior natural force damage, prior damage from other outside forces, and any other previous mechanical damage other than that which was apparently related to prior excavation. Incidents resulting from previous damage sustained during construction, installation, or fabrication of the pipe, weld, or joint from which the release eventually occurred are to be reported under G5 – Pipe, Weld, or Joint Failure. (See this sub-cause for typical indications of previous construction, installation, or fabrication damage.) Incidents resulting from previous damage sustained as a result of excavation activities should be reported under G3 – Previous Damage due to Excavation Activity. (See this sub-cause for typical indications of prior excavation activity.)

Intentional Damage

Vandalism means willful or malicious destruction of the operator’s gas distribution system or facility or equipment. This category would include arson, pranks, systematic damage inflicted to harass the operator, motor vehicle damage that was inflicted intentionally, and a variety of other intentional acts. (See also the discussion of “secondary ignition” under the *General Instructions*.)

Terrorism, per 28 CFR §0.85 General Functions, includes the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. Operators selecting this item are encouraged to also notify the FBI.

Theft of commodity or Theft of equipment means damage by any individual or entity, by any mechanism, specifically to steal, or attempt to steal, the transported gas or gas distribution system equipment.

Other Describe in the space provided and, if necessary, provide additional explanation in PART H – Narrative Description of the Incident.

Damage from Snow/Ice Impact or Accumulation includes damage caused by snow and/or ice. Select this category if the damage is due to Snow/Ice, including encased regulator sets.

Erosion of Support Due to the Other Utilities Select this sub-cause when utilities near the gas distribution system caused the removal of support from under the gas system. Do NOT report this type of event as G5 – Pipe, Weld, or Joint Failure.

Other Outside Force Damage. Select this sub-cause for types of Other Outside Force Damage not included otherwise, and describe in the space provided. If necessary, provide additional explanation in PART H – Narrative Description of the Incident.

7 - 13 Additional Data for Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation

When answering the questions, include information that can be substantiated from police reports or other investigative reports.

The following definitions apply for reporting the type of motorized vehicle in Question 10:

Motorcycle/All-Terrain Vehicle (ATV) - All two or three-wheeled motorized vehicles, and some four-wheeled vehicles are to be reported in this category. Typical vehicles in this category have saddle type seats and are steered by handlebars rather than steering wheels. This category includes motorcycles, motor scooters, mopeds, motor-powered bicycles, and three-wheel motorcycles. Additionally, four-wheeled off-road and all-terrain vehicles (sometimes referred to as “four-wheelers”) are to be reported under this category.

Passenger Car -- All sedans, coupes, and station wagons manufactured primarily for the purpose of carrying passengers and including those passenger cars pulling recreational or other light trailers.

Small Truck - All two-axle, four-tire, vehicles, other than passenger cars. Included in this classification are pickups, panels, vans, and other vehicles such as campers, motor homes, ambulances, hearses, carryalls, and minibuses.

Bus - All vehicles manufactured as traditional passenger-carrying buses with two axles and six tires or three or more axles. This category includes only traditional buses (including school buses) functioning as passenger-carrying vehicles. Modified buses should be considered to be a truck and should be appropriately classified.

Large Truck - All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with two or more axles and at least two rear wheels on each side

When specifying the type of protection in Question 13; select the category “Barricades” for Jersey barriers, fencing, and other structures that are other than Guard Rails or Bollards/Guard Posts. If “Other” is selected, enter text describing the protection.

G5 – Pipe, Weld, or Joint Failure

Use this section to report failures **only for main or service pipe, or welds, joints, or connections joining main pipe or service pipe.**

This section includes releases in or failures of main or service pipe, or welds, joints, or connections joining main pipe or service pipe due to material defect, design defect, or in-service stresses such as vibration, fatigue, and environmental cracking.

Mechanical Joint Failure

“Mechanical fitting” means a mechanical device used to connect sections of pipe. The term “Mechanical fitting” applies only to:

- a. Stab Type fittings;
- b. Nut Follower Type fittings;
- c. Bolted Type fittings; or
- d. Other Compression Type fittings.

5a. Specify the Mechanical Fitting

Stab - Internally there are specially designed components including an elastomer seal, such as an “O” ring, and a gripping device to affect pressure sealing and pull-out resistance capabilities. Self-contained stiffeners are included in this type of fitting. With this style fitting the operator would have to prepare the pipe ends, mark the stab depth on the pipe, and “stab” the pipe in to the depth prescribed for the fitting being used.

Nut Follower – The components are generally a body; a threaded compression nut or a follower; an elastomer seal ring; a stiffener or an integrated stiffener for plastic pipe; and, with some, a gripping ring. Normally the design concept of this type of fitting typically includes an elastomer seal in the assembly. The seal, when compressed by tightening of a threaded compression nut grips the outside of the pipe, affecting a pressure-tight seal and, in some designs, providing pull-out resistance. For plastic pipe, the inside of the pipe wall should be supported by the stiffener under the seal ring and under the gripping ring (if incorporated in the design), to prevent collapse of the pipe. A lack of this support could result in a loss of the seal affected by the seal ring or the gripping of the pipe for pull-out resistance. This fitting style is normally used in pipelines 2-

inches in diameter and smaller. There are two categories of this type of joining device manufactured. One type provides a seal only, and the other provides a seal plus pipe restraint against pull-out.

Bolted – The bolt type mechanical fitting has similar components as the nut follower except instead of a threaded compression nut or follower, there is a bolt arrangement. This fitting style is most often used in pipelines 2-inches in diameter and larger.

Other Compression Type Fitting – Use “Other” only if the fitting does not fit one of the above categories and is a compression type fitting. Describe the other fitting in the text field.

5b. Type of Mechanical Fitting Select the type of fitting which failed. Service or Main Tee should be selected when the fitting provides for the diversion of the gas stream into a branch pipeline without the use of further “tapping” either through a built-in mechanism or external equipment. Tapping Tee should be selected when the fitting is externally attached to the pipeline and a cutter or tapping machine is used. Select “Other” if the fitting type is not listed and provide a description.

5c. Fitting Manufacturer

This is the name of the company that produced the fitting. The manufacturer name would typically be on a sticker attached to a fitting or product or it may be stamped into the fitting. Operators should take care in identifying the manufacturer. Some types of fittings are commonly referred to as “Dresser fittings” (for example) even though the particular fitting may have been manufactured by a different company. Operators should report here the company that actually manufactured the involved fitting when known. To improve data quality, we have created a drop-down list with the most common manufacturers that were reported in 2011. This is not an exhaustive list. If you do not see the name of the manufacturer in the drop down, please select “Other”, and enter the name of the manufacturer in the text box that is provided. If you do not know the manufacturer, please select “unknown”.

5d. Part or Model Number

Enter the part/model number used by the manufacturer to designate the failed fitting. If the Part or Model, Number is not known, then enter “unknown”.

5e. Fitting Material

Select the material that forms the body of the fitting. Select “Other” if the material is not listed and provide a description.

5f. How did the joint failure occur?

Enter whether the gas was escaping between the fitting and the pipe (Leaked Through Seal), from the body of the fitting (Leaked Through Body), or if the pipe pulled out of the fitting (Pulled Out). Select “Other” if how the joint failed is not listed and provide a description.

13. Has one or more pressure test been conducted since original construction at the point of the Incident?

Information from the initial post-construction pressure test is not to be reported. Records of test pressure from past pressure tests may not be available. In such cases, the operator is to estimate the test pressure using best available information.

G6 – Equipment Failure

This section applies to failures of items **other than main or service pipe, or welds, joints, or connections joining main pipe or service pipe**.

Equipment Failure includes a release or failure resulting from: malfunction of control/relief equipment including valves, regulators, or other instrumentation; failures of compressors, or compressor-related equipment; failures of various types of connectors, connections, and appurtenances; failures of the body of equipment, vessel plate, or other material (including those caused by construction, material, or design defects or anomalies); and all other equipment-related failures.

Malfunction of Control/Relief Equipment. Examples of this type of incident cause include: overpressurization resulting from malfunction of control or alarm device; malfunction of relief valve; valves failing to open or close on command; or valves which opened or closed when not commanded to do so. If overpressurization or some other aspect of this incident was caused by incorrect operation, the incident is to be reported under G7 - Incorrect Operation.

ESD System Failure means failure of an emergency shutdown system.

Other Equipment Failure. Select this sub-cause for types of Equipment Failure not included otherwise, and describe in the space provided. If necessary, provide additional explanation in PART H – Narrative Description of the Incident.

G7 – Incorrect Operation

Incorrect Operation includes a release or failure resulting from operating, maintenance, repair, or other errors *by facility personnel*, including, but not limited to, improper valve selection or operation, inadvertent overpressurization, improper selection of procedures, incorrect installation of equipment, and failure to follow manufacturer instructions.

Other Incorrect Operation. Select this sub-cause for types of Incorrect Operation not included otherwise and describe in the space provided. If necessary, provide additional explanation in PART H – Narrative Description of the Incident.

G8 – Other Incident Cause

This section is provided for incidents whose cause is currently unknown, or where investigation into the cause has been exhausted and the final judgment as to the cause remains unknown, or where a cause has been determined which does not fit into any of the main cause categories listed in sections G1 thru G7.

If the incident cause is known but doesn't fit in any category in sections G1 through G7, select **Miscellaneous** and enter a description of the incident cause, continuing with a more thorough explanation in PART H - Narrative Description of the Incident.

If the incident cause is unknown at time of filing this report, select **Unknown** in this section and select one reason from the accompanying two choices. Once the operator's investigation into the incident cause is completed, the operator is to file a Supplemental Report as soon as practicable either reporting the apparent cause or stating definitively that the cause remains Unknown, along with any other new, updated, and/or corrected information pertaining to the incident. This Supplemental Report is to include all new, updated, and/or corrected information pertaining to *all* portions of the report form known at this time, and not only that information related to the apparent cause.

Important Note: Whether the investigation is completed or not, or if the cause continues to be unknown, Supplemental Reports are to be filed reflecting new, updated, and/or corrected information *as and when this information becomes available*. In those cases, in which investigations are ongoing for an extended period of time, operators are to file a Supplemental Report within one year of their last report for the incident even in those instances where no new, updated, and/or corrected information has been obtained, with an explanation that the cause remains under investigation in PART H – Narrative Description of the Incident. Additionally, final determination of the apparent cause and/or closure of the investigation does NOT preclude the need for the operator's filing of additional Supplemental Reports as and when new, updated, and/or corrected information becomes available.

PART J – CONTRIBUTING FACTORS

Contributing factor means an action or lack of action that when added to the existing circumstances heightened the likelihood of the release or added to the impact of the release. The Apparent Cause of the accident is contained in Part G. Do not select the Apparent Cause again in Part J. If Contributing Factors were identified, select all that apply and explain each in the Narrative.

PART H – NARRATIVE DESCRIPTION OF THE INCIDENT

Concisely describe the incident, including the facts, circumstances, and conditions that may have contributed directly or indirectly to causing the incident. Include secondary, contributing, or root causes when possible, or any other factors associated with the cause that are deemed pertinent. Use this section to clarify or explain unusual conditions and to explain any estimated data.

If you selected Miscellaneous in section G8, the narrative is to describe the incident in detail, including all known or suspected causes and possible contributing factors.

PART I – PREPARER AND AUTHORIZED PERSON

The Preparer is the person who compiled the data and prepared the responses to the report and who is to be contacted for more information (preferably the person most knowledgeable about the information in the report or who knows how to contact the person or persons most knowledgeable). Enter the Preparer's e-mail address if the Preparer has one, and the phone and fax numbers used by the Preparer.

The Authorized Person is responsible for assuring the accuracy and completeness of the reported data. In addition to their title, a phone number and email address are to be provided for the Authorized Person.