

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                      |                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------|
| NOTICE: This report is required by 49 CFR Part 191. Failure to report can result in a civil penalty as provided in 49 USC 60122.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                      | OMB NO: 2137-0635<br>EXPIRATION DATE: 4/30/2022  |
| <br>U.S. Department of Transportation<br>Pipeline and Hazardous Materials<br>Safety Administration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>INCIDENT REPORT – GAS DISTRIBUTION<br/>SYSTEM</b> | Report Date _____<br>No. _____<br>(DOT Use Only) |
| A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0635. Public reporting for this collection of information is estimated to be approximately 12 hours per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590. |                                                      |                                                  |

## INSTRUCTIONS

**Important:** Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at <http://www.phmsa.dot.gov/pipeline/library/forms>.

## PART A – KEY REPORT INFORMATION

Report Type: (select all that apply) ☐ Original ☐ Supplemental ☐ Final

A1. Operator's OPS-issued Operator Identification Number (OPID): \_\_\_\_\_

A2. Name of Operator: auto-populated based on OPID

A3. Address of Operator      A3a. Street Address: auto-populated based on OPID      A3b. City: auto-populated based on OPID  
                                          A3c. State: auto-populated based on OPID      A3d. Zip Code: auto-populated based on OPID

A4. Earliest local time (24-hr clock) and date an incident reporting criteria was met:

\_\_\_\_\_ Hour      \_\_\_\_\_ Month      \_\_\_\_\_ Day      \_\_\_\_\_ Year

A4a. Time Zone for local time (select only one) ☐ Alaska ☐ Eastern ☐ Central ☐ Hawaii-Aleutian ☐ Mountain ☐ Pacific.

A4b. Daylight Saving in effect? ☐ Yes ☐ No

A5. Location of Incident:      A5a. \_\_\_\_\_ (Street Address or location description)  
                                          A5b. \_\_\_\_\_ (City)  
                                          A5c. \_\_\_\_\_ (County or Parish)  
                                          State: \_\_\_\_\_      A5e. Zip Code: \_\_\_\_\_

A5f. Latitude: \_\_\_\_\_ Longitude: - \_\_\_\_\_

A6. Gas released : (select only one, based on predominant volume released)

☐ Natural Gas    ☐ Propane Gas    ☐ Synthetic Gas    ☐ Hydrogen Gas    ☐ Landfill Gas    ☐ Other Gas Name: \_\_\_\_\_

A7. Estimated volume of gas released unintentionally: \_\_\_\_\_ thousand standard cubic feet (mcf)

A8. Estimated volume of intentional and controlled release/blowdown: \_\_\_\_\_ thousand standard cubic feet (mcf)

A9. Were there fatalities?

☐ Yes ☐ No

If Yes, specify the number in each category:

A9a. Operator employees: \_\_\_\_\_

A9b. Contractor employees working for the Operator: \_\_\_\_\_

A9c. Non-Operator emergency responders: \_\_\_\_\_

A9d. Workers working on the right-of-way, but NOT associated with this Operator: \_\_\_\_\_

A9e. General public: \_\_\_\_\_

A9f. Total fatalities (sum of above): calculated

A10. Were there injuries requiring inpatient hospitalization?

☐ Yes ☐ No

If Yes, specify the number in each category:

A10a. Operator employees: \_\_\_\_\_

A10b. Contractor employees working for the Operator: \_\_\_\_\_

A10c. Non-Operator emergency responders: \_\_\_\_\_

A10d. Workers working on the \_\_\_\_\_ right-of-way, but NOT associated with this Operator: \_\_\_\_\_

A10e. General public: \_\_\_\_\_

A10f. Total fatalities (sum of above): calculated

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. reserved

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: \_\_\_\_\_

B1. Was the Incident on Federal land?    ☐ Yes    ☐ No

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

☐ 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 \_\_\_\_\_

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 \_\_\_\_\_

B4. Did Incident occur in a crossing? ☐ Yes ☐ No

|                                                                    |                                |                                  |                                        |
|--------------------------------------------------------------------|--------------------------------|----------------------------------|----------------------------------------|
| <input type="checkbox"/> Bridge crossing, Specify:                 | <input type="checkbox"/> Cased | <input type="checkbox"/> Uncased |                                        |
| <input type="checkbox"/> Railroad crossing (Select all that apply) | <input type="checkbox"/> Cased | <input type="checkbox"/> Uncased | <input type="checkbox"/> Bored/drilled |
| <input type="checkbox"/> Road crossing (Select all that apply)     | <input type="checkbox"/> Cased | <input type="checkbox"/> Uncased | <input type="checkbox"/> Bored/drilled |
| <input type="checkbox"/> Water crossing (Select all that apply)    | <input type="checkbox"/> Cased | <input type="checkbox"/> Uncased | <input type="checkbox"/> Bored/drilled |

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

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

C1. Indicate the type of pipeline system:

☐ privately owned      ☐ municipally owned      ☐ investor owned      ☐ cooperative      ☐ Other ⇒ Specify: \_\_\_\_\_

☐ 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":

☐ 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: \_\_\_\_\_

☐ 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  $\Rightarrow$  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): \_\_\_\_\_

E1. Estimated pressure at the point and time of the Incident (psig):     /    /    /    /    /    

E2. Normal operating pressure at the point and time of the Incident (psig):     /    /    /    /    /    

E3. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig):     /    /    /    /    /    

☐ 192.619 (a)(1)    ☐ 192.619 (a)(2)    ☐ 192.619 (a)(3)    ☐ 192.619 (a)(4)    ☐ 192.619 (c)  
☐ 192.621m        ☐ 192.623

☐ Pressure did not exceed MAOP

☐ Pressure exceeded MAOP, but did not exceed the applicable allowance in §192.201

☐ Pressure exceeded the applicable allowance in §192.201

☐ none   ☐ drip   ☐ injection pump   ☐ by-pass   ☐ wick  
☐ combination of odorization types   ☐ odorized by others   ☐ Other, specify: \_\_\_\_\_

☐ No ☐ Yes ☐ E7a. Was it operating at the time of the Incident? ☐ Yes ☐ No

E7d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the discovery of the Incident? confirmed  
☐ Yes ☐ No

☐ Yes, but the investigation of the control room and/or controller actions has not yet been completed by the operator *(Supplemental Report required)*

☐ No, the facility was not monitored by a controller(s) at the time of the Incident

☐ No, the operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to:  
*(provide an explanation for why the operator did not investigate)*

○ Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue *(provide an explanation for why not)*

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**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



☐ Internal Corrosion

7. Results of visual examination:
- ☐ Localized Pitting                      ☐ General Corrosion                      ☐ Not cut open                      ☐ Other \_\_\_\_\_
8. Cause of corrosion: *(select all that apply)*
- ☐ Corrosive Commodity                      ☐ Water drop-out/Acid                      ☐ Microbiological                      ☐ Erosion
- ☐ Other \_\_\_\_\_
9. The cause(s) of corrosion selected in Question 8 is based on the following; *(select all that apply)*
- ☐ Field examination                      ☐ Determined by metallurgical analysis                      ☐ Other \_\_\_\_\_
10. Location of corrosion: *(select all that apply)*
- ☐ Low point in pipe                      ☐ Elbow                      ☐ Drop-out                      ☐ Other \_\_\_\_\_
11. Was the gas/fluid treated with corrosion inhibitors or biocides?                      ☐ Yes                      ☐ No
12. Were any liquids found in the distribution system where the Incident occurred?                      ☐ Yes                      ☐ No

Complete the following if any Corrosion Failure sub-cause is selected AND the "Part of system involved in Incident" (from PART C, Question 2) is Main, Service, or Service Riser.

13. Date of the most recent Leak Survey conducted:      /    /         /                  /                  /  
Month                   Day                   Year
14. 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

**G2 – Natural Force Damage** – only one **sub-cause** can be picked from shaded left-handed column

- |                                                                               |                                   |                                         |                                                                       |                                         |
|-------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------|-----------------------------------------------------------------------|-----------------------------------------|
| <input type="checkbox"/> <b>Earth Movement, NOT due to Heavy Rains/Floods</b> | 1. Specify:                       | <input type="radio"/> Earthquake        | <input type="radio"/> Subsidence                                      | <input type="radio"/> Landslide         |
|                                                                               | <input type="radio"/> Other _____ |                                         |                                                                       |                                         |
| <input type="checkbox"/> <b>Heavy Rains/Floods</b>                            | 2. Specify:                       | <input type="radio"/> Washouts/Scouring | <input type="radio"/> Flotation                                       | <input type="radio"/> Mudslide          |
|                                                                               | <input type="radio"/> Other _____ |                                         |                                                                       |                                         |
| <input type="checkbox"/> <b>Lightning</b>                                     | 3. Specify:                       | <input type="radio"/> Direct hit        | <input type="radio"/> Secondary impact such as resulting nearby fires |                                         |
| <input type="checkbox"/> <b>Temperature</b>                                   | 4. Specify:                       | <input type="radio"/> Thermal Stress    | <input type="radio"/> Frost Heave                                     | <input type="radio"/> Frozen Components |
|                                                                               | <input type="radio"/> Other _____ |                                         |                                                                       |                                         |
| <input type="checkbox"/> <b>High Winds</b>                                    |                                   |                                         |                                                                       |                                         |
| <input type="checkbox"/> <b>Tree/Vegetation Roots</b>                         |                                   |                                         |                                                                       |                                         |
| <input type="checkbox"/> <b>Damage from Snow/Ice Impact or Accumulation</b>   |                                   |                                         |                                                                       |                                         |
| <input type="checkbox"/> <b>Other Natural Force Damage</b>                    | 5. Describe: _____                |                                         |                                                                       |                                         |

**Complete the following if any Natural Force Damage sub-cause is selected.**

6. Were the natural forces causing the Incident generated in conjunction with an extreme weather event? ☐ Yes ☐ No
- 6.a. If Yes, specify: *(select all that apply)* ☐ Hurricane ☐ Tropical Storm ☐ Tornado  
☐ Other

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**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 - required to submit PHMSA F 7100.1-2**

5. Report ID for PHMSA F 7100.1-2 \_\_\_\_\_ or ☐ Report Pending

☐ **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

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

☐

Other \_\_\_\_\_

☐ **Non-threaded Connection Failure**

☐ **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



[illegible]

Preparer's Name (type or print)

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Preparer's Title (type or print)

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Preparer's E-mail Address

---

Local Contact Name: optional

---

Local Contact Email: optional

---

Local Contact Phone: optional

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Authorized Signer

---

Authorized Signer's Title

---

Authorized Signer Telephone Number