

NOTICE: This report is required by 49 CFR Part 191. Failure to report can result in a civil penalty not to exceed \$100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed \$1,000,000 as provided in 49 USC 60122.

OMB NO: 2137-0522
EXPIRATION DATE: 08/31/2020



INCIDENT REPORT – GAS DISTRIBUTION SYSTEM

Report Date _____
No. _____
(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 2137-0522. Public reporting for this collection of information is estimated to be approximately 10 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 <https://www.phmsa.dot.gov/forms/pipeline-forms>.

PART A – KEY REPORT INFORMATION

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

Last Revision Date _____

- 1. Operator's OPS-issued Operator Identification Number (OPID): / / / / / / / /
- 2. Name of Operator: _____
- 3. Address of Operator: _____
- 3.a _____
(Street Address)
- 3.b _____
(City)
- 3.c State: / /
- 3.d Zip Code: / / / / / / - / / / / /

- 4. Local time (24-hr clock) and date of the Incident:
 / / / / / / /
Hour Month Day Year
- 5. Location of Incident:
- 5.a _____
(Street Address or location description)
- 5.b _____
(City)
- 5.c _____
(County or Parish)
- 5.d State: / /
- 5.e Zip Code: / / / / / / - / / / / /
- 5.f Latitude: / / . / / / / / /
- Longitude: - / / / . / / / / / /

- 6. National Response Center Report Number :
 / / / / / / /
- 7. Local time (24-hr clock) and date of initial telephonic report to the National Response Center:
 / / / / / / /
Hour Month Day Year

8. Incident resulted from:
- Unintentional release of gas
 - Intentional release of gas
 - Reasons other than release of gas

9. Gas released : (select only one, based on predominant volume released)
- Natural Gas
 - Propane Gas
 - Synthetic Gas
 - Hydrogen Gas
 - Landfill Gas
 - Other Gas → *Name: _____

10. Estimated volume of gas released: / / / / / / / / / Thousand Cubic Feet (MCF)

11. Were there fatalities? Yes No

If Yes, specify the number in each category:

- 11.a Operator employees / / / / / /
- 11.b Contractor employees
 working for the Operator / / / / / /
- 11.c Non-Operator
 emergency responders / / / / / /
- 11.d Workers working on the
 right-of-way, but NOT
 associated with this Operator / / / / / /
- 11.e General public / / / / / /
- 11.f Total fatalities (sum of above) / / / / / /

12. Were there injuries requiring inpatient hospitalization? Yes No

If Yes, specify the number in each category:

- 12.a Operator employees / / / / / /
- 12.b Contractor employees
 working for the Operator / / / / / /
- 12.c Non-Operator
 emergency responders / / / / / /
- 12.d Workers working on the
 right-of-way, but NOT
 associated with this Operator / / / / / /
- 12.e General public / / / / / /
- 12.f Total injuries (sum of above) / / / / / /

13. Was the pipeline/facility shut down due to the incident?

Yes No → Explain: _____

If Yes, complete Questions 13.a and 13.b: (*use local time, 24-hr clock*)

13.a Local time and date of shutdown / / / / / / / / / / / / / / /
 Hour Month Day Year

13.b Local time pipeline/facility restarted / / / / / / / / / / / / / / / Still shut down*
 Hour Month Day Year (*Supplemental Report required)

14. Did the gas ignite? Yes No

15. Did the gas explode? Yes No

16. Number of general public evacuated: / / / / / /

17. Time sequence (*use local time, 24-hour clock*):

- 17.a Local time operator identified failure / / / / / / / / / / / / / / /
 Hour Month Day Year
- 17.b Local time operator resources arrived on site / / / / / / / / / / / / / / /
 Hour Month Day Year

PART B – ADDITIONAL LOCATION INFORMATION

1. Was the Incident on Federal land? Yes No

2. Location of Incident: *(select only one)*

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

3. 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)
 Other _____
Depth-of-Cover (in): / / / / /
- 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 _____

4. 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 (ft): / / / / /

PART C – ADDITIONAL FACILITY INFORMATION

1. Indicate the type of pipeline system:

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

2. Part of system involved in Incident: (*select only one*) Main Service Service Riser Outside Meter/Regulator set
 Inside Meter/Regulator set Farm Tap Meter/Regulator set
 District Regulator/Metering Station
 Other _____

2.a. Year "Part of system involved in Incident" was installed: / / / / / or Unknown

3. When "Main" or "Service" is selected as the "Part of system involved in Incident" (from PART C, Question 2), provide the following:

*3.a Nominal diameter of pipe (in): / / . / / /

*3.b Pipe specification (e.g., API 5L, ASTM D2513): _____

3.c Pipe manufacturer: _____ or Unknown

3.d Year of manufacture: / / / / / or Unknown

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

4.a. If Steel ⇒ Specify seam type: _____ or None or Unknown

4.b. If Steel ⇒ Specify wall thickness (*inches*): / . / / / / or Unknown

4.c. 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 _____
 Unknown

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

4.e. 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

5. 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

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

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

2. Estimated Property Damage :

2.a Estimated cost of public and non-Operator private property damage \$ / / / / / / / / / / / / /

2.b Estimated cost of Operator's property damage & repairs \$ / / / / / / / / / / / / /

2.c Estimated cost of Operator's emergency response \$ / / / / / / / / / / / / /

2.d Estimated other costs \$ / / / / / / / / / / / / /

Describe: _____

2.e Total estimated property damage (sum of above) \$ / / / / / / / / / / / / /

Cost of Gas Released

2.f Estimated cost of gas released \$ / / / / / / / / / / / / /

3. Estimated number of customers out of service:

3.a Commercial entities / / / / / / / / /

3.b Industrial entities / / / / / / / / /

3.c Residences / / / / / / / / /

PART E – ADDITIONAL OPERATING INFORMATION

- 1. Estimated pressure at the point and time of the Incident (psig): / / / / /
- 2. Normal operating pressure at the point and time of the Incident (psig): / / / / /
- 3. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig): / / / / /
- 4. Describe the pressure on the system relating to the Incident: *(select only one)*
 - Pressure did not exceed MAOP
 - Pressure exceeded MAOP, but did not exceed 110% of MAOP
 - Pressure exceeded 110% of MAOP

- 5. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Incident?
 - No
 - Yes ➔ 5.a Was it operating at the time of the Incident? Yes No
 - 5.b Was it fully functional at the time of the Incident? Yes No
 - 5.c Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume or pack calculations) assist with the detection of the Incident? Yes No
 - 5.d Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Incident? Yes No

- 6. How was the Incident initially identified for the Operator? *(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
 - Air Patrol
 - Notification from Public
 - Notification from Third Party that caused the Incident
 - Local Operating Personnel, including contractors
 - Ground Patrol by Operator or its contractor
 - Notification from Emergency Responder
 - Other _____

6.a If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 6, specify the following: *(select only one)*

 - Operator employee
 - Contractor working for the Operator

- 7. 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)*
 - 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)*

 - Yes, Specify investigation result(s): *(select all that apply)*
 - Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue
 - 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)*

 - Investigation identified no control room issues
 - Investigation identified no controller issues
 - Investigation identified incorrect controller action or controller error
 - Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response
 - Investigation identified incorrect procedures
 - Investigation identified incorrect control room equipment operation
 - Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response
 - Investigation identified areas other than those above ➔ Describe: _____

PART F – DRUG & ALCOHOL TESTING INFORMATION

1. 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 ➡ 1.a Specify how many were tested: / / /

1.b Specify how many failed: / / /

2. 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 ➡ 2.a Specify how many were tested: / / /

2.b 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. Describe secondary, contributing, or root causes of the Incident in the narrative (PART H).

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 _____
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 under the ground?
 Yes ⇨ 4.a Was failed item considered to be under cathodic protection at the time of the incident?
 Yes ⇨ Year protection started: / / / / /
 No

4.b Was shielding, tenting, or disbonding of coating evident at the point of the incident?
 Yes No

4.c Has one or more Cathodic Protection Survey been conducted at the point of the incident?
 Yes, CP Annual Survey ⇨ Most recent year conducted: / / / /
 Yes, Close Interval Survey ⇨ Most recent year conducted: / / / /
 Yes, Other CP Survey ⇨ Most recent year conducted: / / / /
 No

 No ⇨ 4.d 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
6. Pipeline coating type, if steel pipe is involved: (select only one)
 Fusion Bonded Epoxy Coal Tar Asphalt
 Polyolefin Extruded Polyethylene Field Applied Epoxy
 Cold Applied Tape Paint Composite None
 Other _____
 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

Earth Movement, NOT due to Heavy Rains/Floods

1. Specify: Earthquake Subsidence Landslide
 Other _____

Heavy Rains/Floods

2. Specify: Washouts/Scouring Flotation Mudslide Other _____

Lightning

3. Specify: Direct hit Secondary impact such as resulting nearby fires

Temperature

4. Specify: Thermal Stress Frost Heave
 Frozen Components Other _____

High Winds

Other Natural Force Damage

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 _____

G3 – Excavation Damage – *only one sub-cause can be picked from shaded left-hand column

<input type="checkbox"/> Excavation Damage by Operator (First Party)	
<input type="checkbox"/> Excavation Damage by Operator's Contractor (Second Party)	
<input type="checkbox"/> Excavation Damage by Third Party	
<input type="checkbox"/> Previous Damage due to Excavation Activity	<p>Complete the following ONLY IF the "Part of system involved in Incident" (from PART C, Question 2) is Main, Service, or Service Riser.</p> <p>1. Date of the most recent Leak Survey conducted: / / / / / / / Month Day Year</p> <p>2. Has one or more pressure test been conducted since original construction at the point of the Incident? <input type="radio"/> Yes ⇨ Most recent year tested: / / / / Test pressure (psig): / / / / /</p> <p><input type="radio"/> No</p>

Complete the following if Excavation Damage by Third Party is selected.

3. Did the operator get prior notification of the excavation activity? Yes No
 3.a If Yes, Notification received from: (*select all that apply*) One-Call System Excavator Contractor Landowner

Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.

4. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)? Yes No
5. Right-of-Way where event occurred: (*select all that apply*)
- Public ⇨ Specify: City Street State Highway County Road Interstate Highway Other
 - Private ⇨ Specify: Private Landowner Private Business Private Easement
 - Pipeline Property/Easement
 - Power/Transmission Line
 - Railroad
 - Dedicated Public Utility Easement
 - Federal Land
 - Data not collected
 - Unknown/Other
6. Type of excavator: (*select only one*)
- Contractor County Developer Farmer Municipality Occupant
 - Railroad State Utility Data not collected Unknown/Other
7. Type of excavation equipment: (*select only one*)
- Auger Backhoe/Trackhoe Boring Drilling Directional Drilling
 - Explosives Farm Equipment Grader/Scraper Hand Tools Milling Equipment
 - Probing Device Trencher Vacuum Equipment Data not collected Unknown/Other
8. Type of work performed: (*select only one*)
- Agriculture Cable TV Curb/Sidewalk Building Construction Building Demolition
 - Drainage Driveway Electric Engineering/Surveying Fencing
 - Grading Irrigation Landscaping Liquid Pipeline Milling
 - Natural Gas Pole Public Transit Authority Railroad Maintenance Road Work
 - Sewer (Sanitary/Storm) Site Development Steam Storm Drain/Culvert Street Light
 - Telecommunications Traffic Signal Traffic Sign Water Waterway Improvement
 - Data not collected Unknown/Other

(This CGA-DIRT section continued on next page with Question 9.)

9. Was the One-Call Center notified? Yes No

9.a If Yes, specify ticket number: /

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

10. Type of Locator: Utility Owner Contractor Locator Data not collected Unknown/Other

11. Were facility locate marks visible in the area of excavation? No Yes Data not collected Unknown/Other

12. Were facilities marked correctly? No Yes Data not collected Unknown/Other

13. Did the damage cause an interruption in service? No Yes Data not collected Unknown/Other

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

14. Description of the CGA-DIRT Root Cause (select only the one predominant first level CGA-DIRT Root Cause and then, where available as a choice, the one predominant second level CGA-DIRT Root Cause as well):

One-Call Notification Practices Not Sufficient: (select only one)

- No notification made to the One-Call Center
- Notification to One-Call Center made, but not sufficient
- Wrong information provided

Locating Practices Not Sufficient: (select only one)

- Facility could not be found/located
- Facility marking or location not sufficient
- Facility was not located or marked
- Incorrect facility records/maps

Excavation Practices Not Sufficient: (select only one)

- Excavation practices not sufficient (other)
- Failure to maintain clearance
- Failure to maintain the marks
- Failure to support exposed facilities
- Failure to use hand tools where required
- Failure to verify location by test-hole (pot-holing)
- Improper backfilling

One-Call Notification Center Error

Abandoned Facility

Deteriorated Facility

Previous Damage

Data Not Collected

Other / None of the Above (explain)

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

<input type="checkbox"/> Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident	
<input type="checkbox"/> Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation	1. Vehicle/Equipment operated by: <i>(select only one)</i> <input type="radio"/> Operator <input type="radio"/> Operator's Contractor <input type="radio"/> Third Party
<input type="checkbox"/> 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: <input type="radio"/> Hurricane <input type="radio"/> Tropical Storm <input type="radio"/> Tornado <input type="radio"/> Heavy Rains/Flood <input type="radio"/> Other _____
<input type="checkbox"/> Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation	
<input type="checkbox"/> Electrical Arcing from Other Equipment or Facility	
<input type="checkbox"/> Previous Mechanical Damage NOT Related to Excavation	<p>Complete the following ONLY IF the "Part of system involved in Incident" (from PART C, Question 2) is Main, Service, or Service Riser.</p> <p>3. Date of the most recent Leak Survey conducted: / / / / / / Month Day Year</p> <p>4. Has one or more pressure test been conducted since original construction at the point of the Incident? <input type="radio"/> Yes ⇨ Most recent year tested: / / / / / / Test pressure (psig): / / / / / / / /</p> <p><input type="radio"/> No</p>
<input type="checkbox"/> Intentional Damage	5. Specify: <input type="radio"/> Vandalism <input type="radio"/> Terrorism <input type="radio"/> Theft of transported commodity <input type="radio"/> Theft of equipment <input type="radio"/> Other _____
<input type="checkbox"/> Other Outside Force Damage	6. Describe: _____

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

<input type="checkbox"/> Body of Pipe	1. Specify: <input type="radio"/> Dent <input type="radio"/> Gouge <input type="radio"/> Bend <input type="radio"/> Arc Burn <input type="radio"/> Crack <input type="radio"/> Other _____
<input type="checkbox"/> Butt Weld	2. Specify: <input type="radio"/> Pipe <input type="radio"/> Fabrication <input type="radio"/> Other _____
<input type="checkbox"/> Fillet Weld	3. Specify: <input type="radio"/> Branch <input type="radio"/> Hot Tap <input type="radio"/> Fitting <input type="radio"/> Repair Sleeve <input type="radio"/> Other _____
<input type="checkbox"/> Pipe Seam	4. Specify: <input type="radio"/> LF ERW <input type="radio"/> HF ERW <input type="radio"/> Flash Weld <input type="radio"/> DSAW <input type="radio"/> SAW <input type="radio"/> Spiral <input type="radio"/> Other _____
<input type="checkbox"/> Threaded Metallic Pipe	
<input type="checkbox"/> Mechanical Fitting	<p>5. Specify the mechanical fitting involved: <input type="radio"/> Stab type fitting <input type="radio"/> Nut follower type fitting <input type="radio"/> Bolted type fitting <input type="radio"/> Other _____</p> <p>6. Specify the type of mechanical fitting: <input type="radio"/> Service Tee <input type="radio"/> Coupling <input type="radio"/> Service Head Adapter <input type="radio"/> Basement Adapter <input type="radio"/> Riser <input type="radio"/> Elbow <input type="radio"/> Other _____</p> <p>7. Manufacturer: _____</p> <p>8. Year manufactured: <u> </u> / <u> </u> / <u> </u> / <u> </u> / <u> </u></p> <p>9. Year installed: <u> </u> / <u> </u> / <u> </u> / <u> </u> / <u> </u></p> <p>10. Other attributes: _____</p> <p>11. Specify the two materials being joined:</p> <p>11.a First material being joined: <input type="checkbox"/> Steel <input type="checkbox"/> Cast/Wrought Iron <input type="checkbox"/> Ductile Iron <input type="checkbox"/> Copper <input type="checkbox"/> Plastic <input type="checkbox"/> Unknown <input type="checkbox"/> Other ⇒ Specify: _____</p> <p>11.b If Plastic ⇨ Specify: <input type="radio"/> Polyvinyl Chloride (PVC) <input type="radio"/> Polyethylene (PE) <input type="radio"/> Cross-linked Polyethylene (PEX) <input type="radio"/> Polybutylene (PB) <input type="radio"/> Polypropylene (PP) <input type="radio"/> Acrylonitrile Butadiene Styrene (ABS) <input type="radio"/> Polyamide (PA) <input type="radio"/> Cellulose Acetate Butyrate (CAB) <input type="radio"/> Other ⇒ Specify: _____</p> <p>11.c Second material being joined: <input type="checkbox"/> Steel <input type="checkbox"/> Cast/Wrought Iron <input type="checkbox"/> Ductile Iron <input type="checkbox"/> Copper <input type="checkbox"/> Plastic <input type="checkbox"/> Unknown <input type="checkbox"/> Other ⇒ Specify: _____</p> <p>11.d If Plastic ⇨ Specify: <input type="radio"/> Polyvinyl Chloride (PVC) <input type="radio"/> Polyethylene (PE) <input type="radio"/> Cross-linked Polyethylene (PEX) <input type="radio"/> Polybutylene (PB) <input type="radio"/> Polypropylene (PP) <input type="radio"/> Acrylonitrile Butadiene Styrene (ABS) <input type="radio"/> Polyamide (PA) <input type="radio"/> Cellulose Acetate Butyrate (CAB) <input type="radio"/> Other ⇒ Specify: _____</p> <p>12. If used on plastic pipe, did the fitting – as designed by the manufacturer – include restraint? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown</p> <p>12.a If Yes, specify: <input type="radio"/> Cat. I <input type="radio"/> Cat. II <input type="radio"/> Cat. III <input type="radio"/> DOT 192.283</p>

<input type="checkbox"/> Compression Fitting	<p>13. Fitting type: _____</p> <p>14. Manufacturer: _____</p> <p>15. Year manufactured: / / / / /</p> <p>16. Year installed: / / / / /</p> <p>17. Other attributes _____</p> <p>18. Specify the two materials being joined:</p> <p>18.a First material being joined:</p> <p><input type="checkbox"/> Steel <input type="checkbox"/> Cast/Wrought Iron</p> <p><input type="checkbox"/> Ductile Iron <input type="checkbox"/> Copper <input type="checkbox"/> Plastic</p> <p><input type="checkbox"/> Unknown</p> <p><input type="checkbox"/> Other ⇒ Specify: _____</p> <p>18.b If Plastic ⇒ Specify : <input type="radio"/> Polyvinyl Chloride (PVC) <input type="radio"/> Polyethylene (PE)</p> <p><input type="radio"/> Cross-linked Polyethylene (PEX) <input type="radio"/> Polybutylene (PB)</p> <p><input type="radio"/> Polypropylene (PP) <input type="radio"/> Acrylonitrile Butadiene Styrene (ABS)</p> <p><input type="radio"/> Polyamide (PA) <input type="radio"/> Cellulose Acetate Butyrate (CAB)</p> <p><input type="radio"/> Other ⇒ Specify: _____</p> <p>18.c Second material being joined:</p> <p><input type="checkbox"/> Steel <input type="checkbox"/> Cast/Wrought Iron</p> <p><input type="checkbox"/> Ductile Iron <input type="checkbox"/> Copper <input type="checkbox"/> Plastic</p> <p><input type="checkbox"/> Unknown</p> <p><input type="checkbox"/> Other ⇒ Specify: _____</p> <p>18.d If Plastic ⇒ Specify : <input type="radio"/> Polyvinyl Chloride (PVC) <input type="radio"/> Polyethylene (PE)</p> <p><input type="radio"/> Cross-linked Polyethylene (PEX) <input type="radio"/> Polybutylene (PB)</p> <p><input type="radio"/> Polypropylene (PP) <input type="radio"/> Acrylonitrile Butadiene Styrene (ABS)</p> <p><input type="radio"/> Polyamide (PA) <input type="radio"/> Cellulose Acetate Butyrate (CAB)</p> <p><input type="radio"/> Other ⇒ Specify: _____</p>
<input type="checkbox"/> Fusion Joint	<p>19. Specify: <input type="radio"/> Butt, Heat Fusion <input type="radio"/> Butt, Electrofusion <input type="radio"/> Saddle, Heat Fusion</p> <p><input type="radio"/> Saddle, Electrofusion <input type="radio"/> Socket, Heat Fusion <input type="radio"/> Socket, Electrofusion</p> <p><input type="radio"/> Other _____</p> <p>20. Year installed: / / / / /</p> <p>21. Other attributes: _____</p> <p>22. Specify the two materials being joined:</p> <p>22.a First material being joined:</p> <p><input type="radio"/> Polyvinyl Chloride (PVC) <input type="radio"/> Polyethylene (PE)</p> <p><input type="radio"/> Cross-linked Polyethylene (PEX) <input type="radio"/> Polybutylene (PB)</p> <p><input type="radio"/> Polypropylene (PP) <input type="radio"/> Acrylonitrile Butadiene Styrene (ABS)</p> <p><input type="radio"/> Polyamide (PA) <input type="radio"/> Cellulose Acetate Butyrate (CAB)</p> <p><input type="radio"/> Other ⇒ Specify: _____</p> <p>22.b Second material being joined:</p> <p><input type="radio"/> Polyvinyl Chloride (PVC) <input type="radio"/> Polyethylene (PE)</p> <p><input type="radio"/> Cross-linked Polyethylene (PEX) <input type="radio"/> Polybutylene (PB)</p> <p><input type="radio"/> Polypropylene (PP) <input type="radio"/> Acrylonitrile Butadiene Styrene (ABS)</p> <p><input type="radio"/> Polyamide (PA) <input type="radio"/> Cellulose Acetate Butyrate (CAB)</p> <p><input type="radio"/> Other ⇒ Specify: _____</p>
<input type="checkbox"/> Other Pipe, Weld, or Joint Failure	<p>23. Describe: _____</p>

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

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

25. 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

26. 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

<input type="checkbox"/> Malfunction of Control/Relief Equipment	1. Specify: <i>(select all that apply)</i> <input type="radio"/> Control Valve <input type="radio"/> Instrumentation <input type="radio"/> SCADA <input type="radio"/> Communications <input type="radio"/> Block Valve <input type="radio"/> Check Valve <input type="radio"/> Relief Valve <input type="radio"/> Power Failure <input type="radio"/> Stopple/Control Fitting <input type="radio"/> Pressure Regulator <input type="radio"/> Other _____
<input type="checkbox"/> Threaded Connection Failure	2. Specify: <input type="radio"/> Pipe Nipple <input type="radio"/> Valve Threads <input type="radio"/> Threaded Pipe Collar <input type="radio"/> Threaded Fitting <input type="radio"/> Other _____
<input type="checkbox"/> Non-threaded Connection Failure	3. Specify: <input type="radio"/> O-Ring <input type="radio"/> Gasket <input type="radio"/> Other Seal or Packing <input type="radio"/> Other _____
<input type="checkbox"/> Valve	4. Specify: <input type="radio"/> Manufacturing defect <input type="radio"/> Other _____ 4.a Valve type: _____ 4.b Manufactured by: _____ 4.c Year manufactured: / / / / /
<input type="checkbox"/> Other Equipment Failure	5. Describe: _____ _____

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

<input type="checkbox"/> Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage	
<input type="checkbox"/> Valve Left or Placed in Wrong Position, but NOT Resulting in an Overpressure	
<input type="checkbox"/> Pipeline or Equipment Overpressured	
<input type="checkbox"/> Equipment Not Installed Properly	
<input type="checkbox"/> Wrong Equipment Specified or Installed	
<input type="checkbox"/> 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

4.a 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

<input type="checkbox"/> Miscellaneous	1. Describe: _____ _____
<input type="checkbox"/> Unknown	2. Specify: <input type="radio"/> Investigation complete, cause of Incident unknown <input type="radio"/> Still under investigation, cause of Incident to be determined* <i>(*Supplemental Report required)</i>

