

 <p>U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration</p>	<p>INCIDENT REPORT – GAS TRANSMISSION AND GATHERING SYSTEMS</p>	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 2137-0635. 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:

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. Estimated volume of accompanying liquid released: / Barrels

A10. Were there fatalities? 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. Were there injuries requiring inpatient hospitalization? Yes No

If Yes, specify the number in each category:

- A11a. Operator employees / / / / /
- A11b. Contractor employees working for the Operator / / / / /
- A11c. Non-Operator emergency responders / / / / /
- A11d. Workers working on the right-of-way, but NOT associated with this Operator / / / / /
- A11e. General public / / / / /
- A11f. Total injuries (sum of above) *calculated*

A12. 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 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 _____

A12a. If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 12, specify the following: (*select only one*)

- Operator employee
- Contractor working for the Operator

A13. Local time Operator identified failure / / / / Hour / / / Month / / / Day / / / Year

A14. Part of system involved in Incident: (*select only one*)

- Belowground Storage, Including Associated Equipment and Piping
- Aboveground Storage, Including Associated Equipment and Piping
- Onshore Compressor Station Equipment and Piping
- Onshore Regulator/Metering Station Equipment and Piping
- Onshore Pipeline, Including Valve Sites
- Offshore Platform, Including Platform-mounted Equipment and Piping
- Offshore Pipeline, Including Riser and Riser Bend

A15. Operational Status at time Operator identified failure (*select only one*)

- Post-Construction Commissioning
- Post-Maintenance/Repair
- Routine Start-Up
- Routine Shutdown
- Normal Operation, includes pauses during maintenance
- Idle

A16. If A15 = Routine Start-Up or Normal Operation, was the pipeline/facility shut down due to the incident?

Yes No ⇨ Explain: _____

If Yes, complete Questions A16.a and A16.b: (*use local time, 24-hr clock*)

A16a. Local time and date of shutdown / / / / Hour / / / Month / / / Day / / / Year

A16b. Local time pipeline/facility restarted / / / / Hour / / / Month / / / Day / / / Year Still shut down*
*Supplemental Report required

If A12 = Notification from Emergency Responder, skip A17.

A17a. Did the operator communicate with Local, State, or Federal Emergency Responders about the incident? Yes No

If No, skip A17b and c.

A17b. Which party initiated communication about the incident? Operator Local/State/Federal Emergency Responder

A17c. Local time of initial Operator and Local/State/Federal Emergency Responder communication / / / / Hour / / / Month / / / Day / / / Year

A18. Local time operator resources arrived on site / / / / Hour / / / Month / / / Day / / / Year

A19. reserved

A20a. Local time (24-hr clock) and date of initial operator report to the National Response Center :

____/____/____/____/____
Hour Month Day Year

A20b. Initial Operator National Response Center Report Number _____ OR
 NRC Notification Required But Not Made

A20c. Additional NRC Report numbers submitted by the operator: _____

A21. Did the gas ignite? Yes No

If A21 = Yes, then answer A21a through d:

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

If A14. is "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend", answer A22a through f

A22a. Initial action taken to control flow upstream of failure location Valve Closure Operational Control - mandatory text field
If Valve Closure, answer A22.b and c:

A22b. Local time of final upstream valve closure _____
Hour Month Day Year

A22c. Type of upstream valve used to complete upstream isolation of release source:
 Manual Automatic Remotely Controlled

A22d. Initial action taken to control flow downstream of failure location Valve Closure Operational Control - mandatory text field
If Valve Closure, answer A22e and f.:

A22e. Local time of final downstream valve closure _____
Hour Month Day Year

A22f. Type of downstream valve used to complete downstream isolation of release source:
 Manual Automatic Remotely Controlled Check Valve

A23. Number of general public evacuated: _____

PART C – ADDITIONAL FACILITY INFORMATION

C1. Is the pipeline or facility:

- Interstate
- Intrastate

C2. Material involved in Incident: *(select only one)*

- Carbon Steel
- Plastic
- Material other than Carbon Steel or Plastic ⇒ *Specify: _____

C3. Item involved in Incident: *(select only one)*

- Pipe** ⇒ Specify: Pipe Body Pipe Seam C3a. Nominal Pipe Size: / / / / /

If Pipe Body: Was this a Puddle/Spot Weld? Yes No

If C2. is Carbon Steel

- C3b. Wall thickness (in): / / / / /
- C3c. SMYS (Specified Minimum Yield Strength) of pipe (psi): / / / / / / /
- C3d. Pipe specification: _____ OR Unknown

- C3e. Pipe Seam ⇒ 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 _____

C3f. Pipe manufacturer: _____ OR Unknown

C3g. Pipeline coating type at point of Incident

- ⇒ Specify: Epoxy Coal Tar Asphalt Polyolefin Extruded Polyethylene Cold Applied Tape Paint Composite None
- Other _____

C3h. Coating field applied? Yes No Unknown

If C2. is Plastic

- C3i. 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)
- Unknown Other: mandatory text field_

C3j. If Plastic ⇒ Specify Standard Dimension Ratio (SDR): / / / / / or wall thickness: / / / / / or Unknown

C3k. If Polyethylene (PE) is selected as the type of plastic in C3j, specify PE Pipe Material Designation Code (i.e., 2406, 3408, etc.) PE / / / or Unknown

Weld/Fusion, including heat-affected zone ⇒

Specify: Pipe Girth Weld Pipe Plastic Fusion Other Butt Weld Fillet Weld

If Pipe Girth Weld is selected, complete items C3.a through h above.

Are any of the C3b through h values different on either side of the girth weld? Yes No

If Yes, enter the different value(s) below:

- C3l. Wall thickness (in): / / / / /
- C3m. SMYS (Specified Minimum Yield Strength) of pipe (psi): / / / / / / /
- C3n. Pipe specification: _____ OR Unknown

- C3o. Pipe Seam ⇒ Specify: Longitudinal ERW - High Frequency Single SAW Flash Welded
- Longitudinal ERW - Low Frequency DSAW Continuous Welded Longitudinal ERW – Unknown Frequency
- Furnace Butt Welded Spiral Welded Lap Welded
- Seamless Other, describe: _____

C3p. Pipe manufacturer: _____ OR Unknown

C3q. Pipeline coating type at point of Accident

- ⇒ Specify: Fusion Bonded Epoxy (FBE) Coal Tar Asphalt Polyolefin Extruded Polyethylene
- Epoxy other than FBE Cold Applied Tape Paint Composite None Other, describe: _____

C3r. Coating field applied? Yes No Unknown

If Plastic Pipe Fusion is selected, complete items C3.a and c3.i through k above.

Valve, excluding Regulator/Control Valves
○ Mainline ⇒ Specify: ○ Butterfly ○ Check ○ Gate ○ Plug ○ Ball ○ Globe ○ Other _____
C3s. Mainline valve manufacturer: _____ OR ○ Unknown

○ Relief Valve
○ Auxiliary or Other Valve

- Compressor**, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.
- Meter**, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.
- Scraper/Pig Trap**, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.
- Odorization System**, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.
- Filter/Strainer/Separator**, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.
- Dehydrator/Drier/Treater/Scrubber**, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.

tubing.
 Regulator/Control Valve, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.
 Pulsation Bottle or Drip/Drip Collection Device

Cooler or Heater, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.

Repair Sleeve or Clamp

Hot Tap Equipment

Tap Fitting (stoppie, thread-o-ring, weld-o-let, etc.)

Flange Assembly, including Gaskets

ESD System, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.

Drain Lines

Tubing, including Fittings

C3t. Tubing material (select only one):

- Stainless steel
- Carbon steel
- Copper
- Other

C3u. Type of tubing (select only one):

- Rigid
- Flexible

Instrumentation, including Programmable Logic Controllers and Controls

Underground Gas Storage or Cavern

Other _____

C4. Year item involved in Incident was installed: / / / / / / / / OR ○ Unknown

C5. Year item involved in Incident was manufactured: / / / / / / / / OR ○ Unknown

C6. 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. Did this Incident occur in a High Consequence Area (HCA)?

- No
- Yes ⇒ D2.a Specify the Method used to identify the HCA: ○ Method 1(Class Location) ○ Method 2 (PIR)

D3. What is the PIR (Potential Impact Radius) for the location of this Incident? / / / / / / / / feet or ○ Not Flammable

D4. Were any structures outside the PIR impacted or otherwise damaged by heat/fire resulting from the Incident? ○ Yes ○ No

D5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident? ○ Yes ○ No

D6. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? ○ Yes ○ No

If Yes, Describe the cause of the fatalities or injuries: _____

D13. If D2. Is No, answer D13a.

D13a. Did this incident occur in a Moderate Consequence Area (MCA)? ○ Yes ○ No

If D13a. is Yes, answer D13b.

D13b. Select each of the items below that were present within the potential impact circle:

- 5 or more buildings intended for human occupancy
- Paved surface for a designated interstate, freeway, expressway, or other principal 4-lane arterial roadway

D7. Estimated Property Damage:

- D7a. Estimated cost of public and non-Operator private property damage \$ / / / ,/ / / ,/ / / /
- D7b. Estimated cost of Operator's property damage & repairs \$ / / / ,/ / / ,/ / / /
- D7c. Estimated cost of emergency response \$ / / / ,/ / / ,/ / / /
- D7d. Estimated other costs \$ / / / ,/ / / ,/ / / /

Describe: _____

D7e. Total estimated property damage (sum of above) \$ *calculated*

Cost of Gas Released

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

- D7f. Estimated cost of gas released unintentionally \$ *calculated*
- D7g. Estimated cost of gas released during intentional and controlled blowdown \$ *calculated*
- D7h. Total estimated cost of gas released (sum of 7.f & 7.g above) \$ *calculated*
- D7i. Estimated Total Cost (sum of D7e and D7h) \$ *calculated*

Injured Persons not included in A11 The number of persons injured, admitted to a hospital, and remaining in the hospital for at least one overnight are reported in A11. ***If a person is included in A11, do not include them in D8.***

D8. 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 D8, do not include them in D9.

D9. Estimated number of persons with injuries requiring treatment by EMTs at the site of incident: _____

Buildings Affected

D10. Number of residential buildings affected (evacuated or required repair or gas service interrupted): _____

D11. Number of business buildings affected (evacuated or required repair or gas service interrupted): _____

D12. Wildlife impact: Yes No

D12a. If Yes, specify all that apply:

- Fish/aquatic
- Birds
- Terrestrial

PART E – ADDITIONAL OPERATING INFORMATION

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

E1a. Estimated gas flow in pipe segment at the point and time of the incident (MSCF/D): / / / / / / /

E2. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig) : / / / / / / /

E2a. MAOP established by 49 CFR section:

- 192.619 (a)(1) 192. 619 (a)(2) 192. 619 (a)(3) 192.619 (a)(4) 192. 619 (c) 192.619 (d)
- 192.624 (c)(1) 192. 624(c)(2) 192.624 (c)(3) 192.624 (c)(4) 192.624(c)(5) 192.624 (c)(6)
- Other Specify Other: _____

E2b. Date MAOP established: / / / / / /
 Month Day Year

E2c. Was the MAOP in E2a and b established in conjunction with a reversal of flow direction? Yes No Bi-Directional

E3. Describe the pressure on the system or facility relating to the Incident: (select only one)

- 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

E4. Was the system or facility relating to the Incident operating under an “established pressure restriction” with pressure limits below those normally allowed by the MAOP ?

No Yes ➡ (Complete E4.a and E4.b below)

E4a. Did the pressure exceed this “established pressure restriction?” Yes No

E4b. Was this pressure restriction mandated by PHMSA or the State? PHMSA State Not mandated

E5. Was the gas at the point of failure required to be odorized in accordance with §192.625? Yes No

If yes, Was the gas at the point of failure odorized in accordance with §192.625? Yes No

If A14. is “Onshore Pipeline, Including Valve Sites” OR “Offshore Pipeline, Including Riser and Riser Bend”, answer E6 through E8.

E6. Length of segment between upstream and downstream shut-off valves closest to failure location (ft): / / / / / / /

E7 Is the pipeline configured to accommodate internal inspection tools?

- Yes
- No ➡ Which physical features limit tool accommodation? (select all that apply)
 - Changes in line pipe diameter
 - Presence of unsuitable mainline valves
 - Tight or mitered pipe bends
 - Other passage restrictions (i.e. unbarred tee’s, projecting instrumentation, etc.)
 - Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)
 - Other ➡ Describe: _____

E8 For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?

- No
- Yes ➡ Which operational factors complicate execution? (select all that apply)
 - Excessive debris or scale, wax, or other wall build-up
 - Low operating pressure(s)
 - Low flow or absence of flow
 - Incompatible commodity
 - Other ➡ Describe: _____

E9 Function of pipeline system: (select only one)

- Transmission System Transmission Line of Distribution System
- Type A Gathering Type B Gathering
- Transmission in Storage Field Offshore Gathering

E10 Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Incident?

No

Yes ⇒ E10.a Was it operating at the time of the Incident? Yes No

E10.b Was it fully functional at the time of the Incident? Yes No

E10.c Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume or pack calculations) assist with the initial indication of the Incident? Yes No

E10.d Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmed discovery of the Incident? Yes No

E11 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

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 K – 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 No 4a. Was failed item considered to be under cathodic protection at the time of the incident?

Yes No 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 Yes 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

Internal Corrosion

6. Results of visual examination:

- Localized Pitting
- General Corrosion
- Not cut open
- Other

7. Cause of corrosion: (select all that apply)

- Corrosive Commodity
- Water drop-out/Acid
- Microbiological
- Erosion
- Other _____

8. The cause(s) of corrosion selected in Question 7 is based on the following: *(select all that apply)*

- Field examination Determined by metallurgical analysis
 Other
-

9. Location of corrosion: *(select all that apply)*

- Low point in pipe Elbow Drop-out Dead-Leg
 Other
-

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

- Yes No

11. Was the interior coated or lined with protective coating? Yes

- No

12. Were cleaning/dewatering pigs (or other operations) routinely utilized?

- Not applicable - Not mainline pipe Yes No

13. Were corrosion coupons routinely utilized?

- Not applicable - Not mainline pipe Yes No

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

Earth Movement, NOT due to Heavy Rains/Floods

1. Specify: Earthquake Subsidence Landslide
 Other _____

Heavy Rains/Floods

2. Specify: Washout/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

Trees/Vegetation Roots

Snow/Ice impact or Accumulation

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

6a. 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

- 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**

Complete the following if Excavation Damage by Third Party is selected as the sub-cause.

- 1. Did the operator get prior notification of the excavation activity? Yes No
 - 1a. If Yes, Notification received from: *(select all that apply)* One-Call System Excavator Contractor Landowner
 - 1b. Per the primary Incident Investigator results, did State law exempt the excavator from notifying the one-call center? Yes No Unknown
 - If yes, answer 1c. through 1e.
 - 1c. select one of the following:
 - Excavator is exempt
 - Activity is exempt and did not exceed the limits of the exemption
 - Activity is exempt and exceeded the limits of the exemption
 - Other mandatory text field: _____
 - 1d. Exempting authority _____
 - 1e. Exempting criteria _____

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

- 2. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)? Yes No
- 3. 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
- 4. Type of excavator: *(select only one)*
 - Contractor County Developer Farmer Municipality Occupant
 - Railroad State Utility Data not collected Unknown/Other
- 5. 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
- 6. 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

G4 - Other Outside Force Damage - only one sub-cause can be picked from shaded left-hand column

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

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

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

If this sub-section is picked, please complete questions 5-11 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

Intentional Damage

3. Specify:
 Vandalism Terrorism
 Theft of transported commodity Theft of equipment
 Other _____

Other Outside Force Damage

4. Describe: _____

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

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

If 5 is Yes, what was the nature of the citations (select all that apply)

- 5a. Excessive Speed
- 5b. Reckless Driving
- 5c. Driving Under the Influence
- 5e. Other, describe: _____

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

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

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

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

10. Shortest distance from answer in 9. to the damaged pipeline facility (in feet): _____

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

If 11. is Yes, specify type of protection (select all that apply):

- 11a. Bollards/Guard Posts
- 11b. Barricades – include Jersey barriers and fences in instructions
- 11c. Guard Rails
- 11d. Other, describe: _____

G5 - Material Failure of Pipe or Weld

Use this section to report material failures ONLY IF the "Item Involved in Incident" (from PART C, Question 3) is "Pipe" or "Weld."

Only one **sub-cause** can be picked from shaded left-hand column

1. The sub-cause selected below is based on the following: *(select all that apply)*

Field Examination Determined by Metallurgical Analysis Other Analysis _____

Sub-cause is Tentative or Suspected; Still Under Investigation *(Supplemental Report required)*

Design-, Construction-, Installation-, or Fabrication-related

**Original Manufacturing-related
(NOT girth weld or other welds formed in the field)**

2. List contributing factors: *(select all that apply)*

Fatigue- or Vibration-related:

Mechanically-induced prior to installation (such as during transport of pipe)

Mechanical Vibration

Pressure-related

Thermal

Other _____

Mechanical Stress

Other _____

Environmental Cracking-related

3. Specify: Stress Corrosion Cracking Sulfide Stress Cracking

Hydrogen Stress Cracking Hard Spot

Other _____

Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.

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

5. Post-construction pressure test value (psig) / / / / / OR Unknown

G6 - Equipment Failure - only one **sub-cause** can be picked from 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
 - Stopp/Control Fitting
 - Pressure Regulator
 - ESD System Failure
 - Other

Compressor or Compressor-related Equipment

2. Specify: Seal/Packing Failure Body Failure
- Crack in Body
- Appurtenance Failure Pressure
 - Vessel Failure
 - Other

Threaded Connection/Coupling Failure

3. Specify: Pipe Nipple Valve Threads
- Mechanical Coupling
- Threaded Pipe Collar Threaded Fitting
 - Other

Non-threaded Connection Failure

4. Specify: O-Ring Gasket Seal (NOT
compressor seal) or Packing
-
- Other _____

Defective or Loose Tubing or Fitting

Failure of Equipment Body (except Compressor), Vessel Plate, or other Material

Other Equipment Failure

5. Describe:
- _____
- _____
- _____

Complete the following if any Equipment Failure sub-cause is selected.

6. Additional factors that contributed to the equipment failure: *(select all that apply)*

- Excessive vibration
- Overpressurization
- No support or loss of support
- Manufacturing defect
- Loss of electricity
- Improper installation
- Improper maintenance
- Mismatched items (different manufacturer for tubing and tubing fittings)
- Dissimilar metals
- Breakdown of soft goods due to compatibility issues with transported gas/fluid
- Valve vault or valve can contributed to the release
- Alarm/status failure
- Misalignment
- Thermal stress
- Erosion/abnormal wear
- Other _____

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

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

Underground Gas Storage, Pressure Vessel, or Cavern Allowed or Caused to Overpressure

1. Specify: Valve Misalignment Incorrect Reference Data/Calculation
 Miscommunication Inadequate Monitoring
 Other _____

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

2. Describe: _____

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

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

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

4. 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)

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

5a. 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 picked from 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 – INTEGRITY INSPECTIONS

Complete the following if the “Item Involved in Accident” (from PART C, Question 3) is Pipe or Weld and the “Cause” (from Part G) is: Corrosion (any subCause in Part G1); or Previous Damage due to Excavation Activity (subCause in Part G3); or Previous Mechanical Damage NOT Related to Excavation (subCause in Part G4); or Material Failure of Pipe or Weld (any subCause in Part G5)

J1. Have internal inspection tools collected data at the point of the Incident?
 Yes No

J1a. If Yes, for each tool and technology used provide the information below for the most recent and previous tool runs:

Axial Magnetic Flux Leakage

Most recent run Year: _____

Most recent run Propulsion Method (select only one): Free Swimming Tethered

Most recent run Attuned to Detect (select only one): Metal Loss Hard Spots Girth Weld Anomalies

Other Describe: _____

If Metal Loss, specify (select only one): High Resolution Standard Resolution

Other Describe: _____

Previous run Year: _____

Previous run Propulsion Method (select only one): Free Swimming Tethered

Previous run Attuned to Detect (select only one): Metal Loss Hard Spots Girth Weld Anomalies

Other Describe: _____

If Metal Loss, specify (select only one): High Resolution Standard Resolution

Other Describe: _____

Circumferential/Transverse Wave Magnetic Flux Leakage

Most recent run Year: _____

Most recent run Propulsion Method (select only one): Free Swimming Tethered

Most recent run Resolution (select only one): High Resolution Standard Resolution

Other Describe: _____

Previous run Year: _____

Previous run Propulsion Method (select only one): Free Swimming Tethered

Previous run Resolution (select only one): High Resolution Standard Resolution

Other Describe: _____

Ultrasonic

Most recent run Year: _____

Most recent run Propulsion Method (select only one): Free Swimming Tethered

Most recent run Attuned to (select only one) Wall Measurement Crack

Other Describe: _____

If Attuned to Wall Measurement, most recent run Metal Loss Resolution (select only one):

Standard Resolution Other Describe: _____

Previous run Year: _____

Previous run Propulsion Method (select only one): Free Swimming Tethered

Most recent run Attuned to (select only one) Wall Measurement Crack

Other Describe: _____

If Attuned to Wall Measurement, most recent run Metal Loss Resolution (select only one):

Standard Resolution Other Describe: _____

Geometry/Deformation
 Most recent run Year: _____
 Most recent run Propulsion Method (select only one): Free Swimming Tethered
 Most recent run Resolution (select only one): High Resolution Standard Resolution
 Other Describe: _____
 Most recent run Measurement Cups (select only one): Inside ILI Cups No Cups
 Previous run Year: _____
 Previous run Propulsion Method (select only one): Free Swimming Tethered
 Previous run Resolution (select only one): High Resolution Standard Resolution
 Other Describe: _____
 Previous run Measurement Cups (select only one): Inside ILI Cups No Cups

Electromagnetic Acoustic Transducer (EMAT)
 Most recent run Year: _____
 Most recent run Propulsion Method (select only one): Free Swimming Tethered
 Previous run Year: _____
 Previous run Propulsion Method (select only one): Free Swimming Tethered

Cathodic Protection Current Measurement (CPCM)
 Most recent run Year: _____
 Most recent run Propulsion Method (select only one): Free Swimming Tethered
 Previous run Year: _____
 Previous run Propulsion Method (select only one): Free Swimming Tethered

Other, specify tool: _____
 Most recent run Year: _____
 Most recent run Propulsion Method (select only one): Free Swimming Tethered
 Previous run Year: _____
 Previous run Propulsion Method (select only one): Free Swimming Tethered

**Answer J1b only when the cause is:
 Previous Damage due to Excavation Activity (subCause in Part G3); or
 Previous Mechanical Damage NOT Related to Excavation (subCause in Part G4)**

J1b. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? Yes No

J2. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident?
 (initial post construction pressure test is NOT reported here)

Yes ⇨ Most recent year tested: / / / / / / Test pressure (psig): / / / / / / /
 No

J3. Has Direct Assessment been conducted on the pipeline segment?
 Yes, and an investigative dig was conducted at the point of the Accident ⇨ Most recent year conducted: / / / / / /
 Yes, but the point of the Accident was not identified as a dig site ⇨ Most recent year conducted: / / / / / /
 No

If Yes, J3a. For each type, indicate the year of the most recent assessment:
 External Corrosion Direct Assessment (ECDA) / / / / / /
 Internal Corrosion Direct Assessment (ICDA) / / / / / /
 Stress Corrosion Cracking Direct Assessment (SCCDA) / / / / / /
 Confirmatory Direct Assessment / / / / / /
 Other, specify type: _____ / / / / / /

J4. Has one or more non-destructive examination been conducted prior to the Incident at the point of the Incident since January 1, 2002?
 Yes No

J4a. If Yes, for each examination conducted, select type of non-destructive examination and indicate most recent year the examination was conducted:
 Radiography / / / / / /
 Guided Wave Ultrasonic / / / / / /
 Handheld Ultrasonic Tool / / / / / /
 Wet Magnetic Particle Test / / / / / /
 Dry Magnetic Particle Test / / / / / /
 Other, specify type _____ / / / / / /

PART K – CONTRIBUTING FACTORS

The Apparent Cause of the accident is contained in Part G. Do not report the Apparent Cause again in this Part K. 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
- 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
- Environmental Cracking-related, Stress Corrosion Cracking
- Environmental Cracking-related, Sulfide Stress Cracking
- Environmental Cracking-related, Hydrogen Stress Cracking
- Environmental Cracking-related, Hard Spot

Equipment Failure

- Malfunction of Control/Relief Equipment
- Compressor or Compressor-related Equipment
- Threaded Connection/Coupling Failure
- Non-threaded Connection Failure
- Defective or Loose Tubing or Fitting
- Failure of Equipment Body (except Compressor), Vessel Plate, or other Material

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-Name

Authorized Signer's Title

Preparer's Telephone Number

Preparer's Facsimile Number

Authorized Signer Telephone Number

Authorized Signer's E-mail Address