


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.

Form Approved  
 OMB NO: 2137-0522  
 Expires: 08/31/2020

 <p>U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration</p>	<p><b>INCIDENT REPORT – NATURAL AND OTHER GAS TRANSMISSION AND GATHERING PIPELINE SYSTEMS</b></p>	<p>Report Date _____        No. _____        (DOT Use Only)</p>
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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:
- 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 (if applicable):
- / / / / / /   / / / /   / / / /   / / / /  
 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 unintentionally:   / / / / / / / / / / Thousand Cubic Feet (MCF)
11. Estimated volume of intentional and controlled release/blowdown:   / / / / / / / / / / Thousand Cubic Feet (MCF)
12. Estimated volume of accompanying liquid released:   / / / / / / / / / / Barrels

13. Were there fatalities?  Yes  No

If Yes, specify the number in each category:

13.a Operator employees / / / / / /

13.b Contractor employees working for the Operator / / / / / /

13.c Non-Operator emergency responders / / / / / /

13.d Workers working on the right-of-way, but NOT associated with this Operator / / / / / /

13.e General public / / / / / /

13.f Total fatalities (sum of above) / / / / / /

14. Were there injuries requiring inpatient hospitalization?  Yes  No

If Yes, specify the number in each category:

14.a Operator employees / / / / / /

14.b Contractor employees working for the Operator / / / / / /

14.c Non-Operator emergency responders / / / / / /

14.d Workers working on the right-of-way, but NOT associated with this Operator / / / / / /

14.e General public / / / / / /

14.f Total injuries (sum of above) / / / / / /

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

Yes  No ⇨ Explain: \_\_\_\_\_

If Yes, complete Questions 15.a and 15.b: (use local time, 24-hr clock)

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

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

16. Did the gas ignite?  Yes  No

17. Did the gas explode?  Yes  No

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

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

19.a Local time operator identified failure / / / / / / / / / /  
Hour Month Day Year

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





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

- Carbon Steel
- Plastic
- Material other than Carbon Steel or Plastic ➔ \*Specify: \_\_\_\_\_

6. Type of Incident 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. Did this Incident occur in a High Consequence Area (HCA)?

- No
- Yes ➔ 2.a Specify the Method used to identify the HCA:  Method 1  Method 2

3. What is the PIR (Potential Impact Radius) for the location of this Incident?    /\_/\_/ /\_/\_/ feet

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

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

6. Were any of the fatalities or injuries reported for persons located outside the PIR?     Yes     No

7. Estimated Property Damage:

- 7.a Estimated cost of public and non-Operator private property damage    \$ /\_/\_/ /\_/\_/ /\_/\_/ /\_/\_/
- 7.b Estimated cost of Operator's property damage & repairs    \$ /\_/\_/ /\_/\_/ /\_/\_/ /\_/\_/
- 7.c Estimated cost of Operator's emergency response    \$ /\_/\_/ /\_/\_/ /\_/\_/ /\_/\_/
- 7.d Estimated other costs    \$ /\_/\_/ /\_/\_/ /\_/\_/ /\_/\_/
- Describe \_\_\_\_\_
- 7.e Total estimated property damage (sum of above)    \$ /\_/\_/ /\_/\_/ /\_/\_/ /\_/\_/

Cost of Gas Released

- 7.f Estimated cost of gas released unintentionally    \$ /\_/\_/ /\_/\_/ /\_/\_/ /\_/\_/
- 7.g Estimated cost of gas released during intentional and controlled blowdown    \$ /\_/\_/ /\_/\_/ /\_/\_/ /\_/\_/
- 7.h Total estimated cost of gas released (sum of 7.f & 7.g above)    \$ /\_/\_/ /\_/\_/ /\_/\_/ /\_/\_/



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

No

Yes ➔

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

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

6.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

6.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

7. 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 \_\_\_\_\_

7.a If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 7, specify the following: (select only one)

Operator employee  Contractor working for the Operator

8. 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:   /  /  /



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

<input type="checkbox"/> <b>External Corrosion</b>	<p>1. Results of visual examination:  <input type="radio"/> Localized Pitting    <input type="radio"/> General Corrosion  <input type="radio"/> Other _____</p> <p>2. Type of corrosion: <i>(select all that apply)</i>  <input type="radio"/> Galvanic    <input type="radio"/> Atmospheric    <input type="radio"/> Stray Current    <input type="radio"/> Microbiological    <input type="radio"/> Selective Seam  <input type="radio"/> Other _____</p> <p>3. The type(s) of corrosion selected in Question 2 is based on the following: <i>(select all that apply)</i>  <input type="radio"/> Field examination    <input type="radio"/> Determined by metallurgical analysis  <input type="radio"/> Other _____</p> <p>4. Was the failed item buried under the ground?  <input type="radio"/> Yes ⇨ 4.a Was failed item considered to be under cathodic protection at the time of the incident?              <input type="radio"/> Yes ⇨ Year protection started: <u>  /  /  /  /  /  </u>              <input type="radio"/> No              4.b Was shielding, tenting, or disbonding of coating evident at the point of the incident?                  <input type="radio"/> Yes    <input type="radio"/> No              4.c Has one or more Cathodic Protection Survey been conducted at the point of the incident?              <input type="radio"/> Yes, CP Annual Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u>              <input type="radio"/> Yes, Close Interval Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u>              <input type="radio"/> Yes, Other CP Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u>              <input type="radio"/> No  <input type="radio"/> No ⇨ 4.d Was the failed item externally coated or painted?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p>5. Was there observable damage to the coating or paint in the vicinity of the corrosion?  <input type="radio"/> Yes    <input type="radio"/> No</p>
<input type="checkbox"/> <b>Internal Corrosion</b>	<p>6. Results of visual examination:  <input type="radio"/> Localized Pitting    <input type="radio"/> General Corrosion    <input type="radio"/> Not cut open  <input type="radio"/> Other _____</p> <p>7. Cause of corrosion: <i>(select all that apply)</i>  <input type="radio"/> Corrosive Commodity    <input type="radio"/> Water drop-out/Acid    <input type="radio"/> Microbiological    <input type="radio"/> Erosion  <input type="radio"/> Other _____</p> <p>8. The cause(s) of corrosion selected in Question 7 is based on the following: <i>(select all that apply)</i>  <input type="radio"/> Field examination    <input type="radio"/> Determined by metallurgical analysis  <input type="radio"/> Other _____</p> <p>9. Location of corrosion: <i>(select all that apply)</i>  <input type="radio"/> Low point in pipe    <input type="radio"/> Elbow    <input type="radio"/> Drop-out  <input type="radio"/> Other _____</p> <p>10. Was the gas/fluid treated with corrosion inhibitors or biocides?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p>11. Was the interior coated or lined with protective coating?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p>12. Were cleaning/dewatering pigs (or other operations) routinely utilized?  <input type="radio"/> Not applicable - Not mainline pipe    <input type="radio"/> Yes    <input type="radio"/> No</p> <p>13. Were corrosion coupons routinely utilized?  <input type="radio"/> Not applicable - Not mainline pipe    <input type="radio"/> Yes    <input type="radio"/> No</p>

Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Incident" (from PART C, Question 3) is Pipe or Weld.

14. Has one or more internal inspection tool collected data at the point of the Incident?

Yes  No

14.a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:

- Magnetic Flux Leakage Tool      / / / / /
- Ultrasonic      / / / / /
- Geometry      / / / / /
- Caliper      / / / / /
- Crack      / / / / /
- Hard Spot      / / / / /
- Combination Tool      / / / / /
- Transverse Field/Triaxial      / / / / /
- Other \_\_\_\_\_ / / / / /

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

Yes ⇒ Most recent year tested: / / / / /      Test pressure (psig): / / / / / /

No

16. Has one or more Direct Assessment been conducted on this segment?

Yes, and an investigative dig was conducted at the point of the Incident ⇒ Most recent year conducted: / / / / /

Yes, but the point of the Incident was not identified as a dig site ⇒ Most recent year conducted: / / / / /

No

17. Has one or more non-destructive examination been conducted at the point of the Incident since January 21, 2002?

Yes  No

17.a If Yes, for each examination conducted since January 1, 2002, 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 \_\_\_\_\_ / / / / /

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

<input type="checkbox"/> Earth Movement, NOT due to Heavy Rains/Floods	1. Specify: <input type="radio"/> Earthquake <input type="radio"/> Subsidence <input type="radio"/> Landslide <input type="radio"/> Other _____
<input type="checkbox"/> Heavy Rains/Floods	2. Specify: <input type="radio"/> Washout/Scouring <input type="radio"/> Flotation <input type="radio"/> Mudslide <input type="radio"/> Other _____
<input type="checkbox"/> Lightning	3. Specify: <input type="radio"/> Direct hit <input type="radio"/> Secondary impact such as resulting nearby fires
<input type="checkbox"/> Temperature	4. Specify: <input type="radio"/> Thermal Stress <input type="radio"/> Frost Heave <input type="radio"/> Frozen Components <input type="radio"/> Other _____
<input type="checkbox"/> High Winds	
<input type="checkbox"/> 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><b>Complete Questions 1-5 ONLY IF the "Item Involved in Incident" (from PART C, Question 3) is Pipe or Weld.</b></p> <p>1. Has one or more internal inspection tool collected data at the point of the Incident?  <input type="radio"/> Yes <input type="radio"/> No</p> <p>1.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td><input type="radio"/> Magnetic Flux Leakage</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Ultrasonic</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Geometry</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Caliper</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Crack</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Hard Spot</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Combination Tool</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Transverse Field/Triaxial</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Other _____</td><td style="text-align: right;">/ / / / /</td></tr> </table> <p>2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? <input type="radio"/> Yes <input type="radio"/> No</p> <p>3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident?  <input type="radio"/> Yes ⇒ Most recent year tested: / / / / /  Test pressure (psig): / / , / / / / /  <input type="radio"/> No</p> <p>4. Has one or more Direct Assessment been conducted on the pipeline segment?  <input type="radio"/> Yes, and an investigative dig was conducted at the point of the Incident  ⇒ Most recent year conducted: / / / / /  <input type="radio"/> Yes, but the point of the Incident was not identified as a dig site  ⇒ Most recent year conducted: / / / / /  <input type="radio"/> No</p> <p>5. Has one or more non-destructive examination been conducted at the point of the Incident since January 1, 2002?  <input type="radio"/> Yes <input type="radio"/> No</p> <p>5.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td><input type="radio"/> Radiography</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Guided Wave Ultrasonic</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Handheld Ultrasonic Tool</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Wet Magnetic Particle Test</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Dry Magnetic Particle Test</td><td style="text-align: right;">/ / / / /</td></tr> <tr><td><input type="radio"/> Other _____</td><td style="text-align: right;">/ / / / /</td></tr> </table>	<input type="radio"/> Magnetic Flux Leakage	/ / / / /	<input type="radio"/> Ultrasonic	/ / / / /	<input type="radio"/> Geometry	/ / / / /	<input type="radio"/> Caliper	/ / / / /	<input type="radio"/> Crack	/ / / / /	<input type="radio"/> Hard Spot	/ / / / /	<input type="radio"/> Combination Tool	/ / / / /	<input type="radio"/> Transverse Field/Triaxial	/ / / / /	<input type="radio"/> Other _____	/ / / / /	<input type="radio"/> Radiography	/ / / / /	<input type="radio"/> Guided Wave Ultrasonic	/ / / / /	<input type="radio"/> Handheld Ultrasonic Tool	/ / / / /	<input type="radio"/> Wet Magnetic Particle Test	/ / / / /	<input type="radio"/> Dry Magnetic Particle Test	/ / / / /	<input type="radio"/> Other _____	/ / / / /
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<input type="radio"/> Dry Magnetic Particle Test	/ / / / /																														
<input type="radio"/> Other _____	/ / / / /																														
<p><b>Complete the following if Excavation Damage by Third Party is selected as the sub-cause.</b></p> <p>6. Did the operator get prior notification of the excavation activity? <input type="radio"/> Yes <input type="radio"/> No</p> <p>6.a If Yes, Notification received from: (<i>select all that apply</i>) <input type="checkbox"/> One-Call System <input type="checkbox"/> Excavator <input type="checkbox"/> Contractor <input type="checkbox"/> Landowner</p>																															

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

7. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)?  Yes  No
8. 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
9. Type of excavator: *(select only one)*
- Contractor  County  Developer  Farmer  Municipality  Occupant
  - Railroad  State  Utility  Data not collected  Unknown/Other
10. 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
11. 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
12. Was the One-Call Center notified?  Yes  No
- \*12.a If Yes, specify ticket number: /
- \*12.b If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:  
 \_\_\_\_\_
13. Type of Locator:  Utility Owner  Contract Locator  Data not collected  Unknown/Other
14. Were facility locate marks visible in the area of excavation?  No  Yes  Data not collected  Unknown/Other
15. Were facilities marked correctly?  No  Yes  Data not collected  Unknown/Other
16. Did the damage cause an interruption in service?  No  Yes  Data not collected  Unknown/Other
- 16.a If Yes, specify duration of the interruption: / \_\_ / \_\_ / \_\_ / \_\_ / hours

*(This CGA-DIRT section continued on next page with Question 17.)*

17. 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 picked from shaded left-hand column

<input type="checkbox"/> <b>Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident</b>																			
<input type="checkbox"/> <b>Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation</b>	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"/> <b>Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring</b>	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"/> <b>Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation</b>																			
<input type="checkbox"/> <b>Electrical Arcing from Other Equipment or Facility</b>																			
<input type="checkbox"/> <b>Previous Mechanical Damage NOT Related to Excavation</b>	<p><b>Complete Questions 3-7 ONLY IF the "Item Involved in Incident" (from PART C, Question 3) is Pipe or Weld.</b></p> <p>3. Has one or more internal inspection tool collected data at the point of the Incident?  <input type="radio"/> Yes   <input type="radio"/> No</p> <p>3.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-left: 40px;"><input type="radio"/> Magnetic Flux Leakage</td> <td style="text-align: right;">/ / / / / /</td> </tr> <tr> <td style="padding-left: 40px;"><input type="radio"/> Ultrasonic</td> <td style="text-align: right;">/ / / / / /</td> </tr> <tr> <td style="padding-left: 40px;"><input type="radio"/> Geometry</td> <td style="text-align: right;">/ / / / / /</td> </tr> <tr> <td style="padding-left: 40px;"><input type="radio"/> Caliper</td> <td style="text-align: right;">/ / / / / /</td> </tr> <tr> <td style="padding-left: 40px;"><input type="radio"/> Crack</td> <td style="text-align: right;">/ / / / / /</td> </tr> <tr> <td style="padding-left: 40px;"><input type="radio"/> Hard Spot</td> <td style="text-align: right;">/ / / / / /</td> </tr> <tr> <td style="padding-left: 40px;"><input type="radio"/> Combination Tool</td> <td style="text-align: right;">/ / / / / /</td> </tr> <tr> <td style="padding-left: 40px;"><input type="radio"/> Transverse Field/Triaxial</td> <td style="text-align: right;">/ / / / / /</td> </tr> <tr> <td style="padding-left: 40px;"><input type="radio"/> Other</td> <td style="text-align: right;">/ / / / / /</td> </tr> </table> <p>4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?   <input type="radio"/> Yes   <input type="radio"/> No</p> <p>5. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident?</p> <p style="padding-left: 40px;"><input type="radio"/> Yes ⇒ Most recent year tested:    / / / / / /                  Test pressure (psig):                    / / / / / /</p> <p style="padding-left: 40px;"><input type="radio"/> No</p> <p>6. Has one or more Direct Assessment been conducted on the pipeline segment?</p> <p style="padding-left: 40px;"><input type="radio"/> Yes, and an investigative dig was conducted at the point of the Incident                  ⇒ Most recent year conducted:    / / / / / /</p> <p style="padding-left: 40px;"><input type="radio"/> Yes, but the point of the Incident was not identified as a dig site                  ⇒ Most recent year conducted:    / / / / / /</p> <p style="padding-left: 40px;"><input type="radio"/> No</p> <p><i>(This section continued on next page with Question 7.)</i></p>	<input type="radio"/> Magnetic Flux Leakage	/ / / / / /	<input type="radio"/> Ultrasonic	/ / / / / /	<input type="radio"/> Geometry	/ / / / / /	<input type="radio"/> Caliper	/ / / / / /	<input type="radio"/> Crack	/ / / / / /	<input type="radio"/> Hard Spot	/ / / / / /	<input type="radio"/> Combination Tool	/ / / / / /	<input type="radio"/> Transverse Field/Triaxial	/ / / / / /	<input type="radio"/> Other	/ / / / / /
<input type="radio"/> Magnetic Flux Leakage	/ / / / / /																		
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<input type="radio"/> Caliper	/ / / / / /																		
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<input type="radio"/> Hard Spot	/ / / / / /																		
<input type="radio"/> Combination Tool	/ / / / / /																		
<input type="radio"/> Transverse Field/Triaxial	/ / / / / /																		
<input type="radio"/> Other	/ / / / / /																		

	<p>7. Has one or more non-destructive examination been conducted at the point of the Incident since January 1, 2002?  <input type="radio"/> Yes <input type="radio"/> No</p> <p>7.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:</p> <p><input type="radio"/> Radiography <span style="float: right;">/ / / / /</span></p> <p><input type="radio"/> Guided Wave Ultrasonic <span style="float: right;">/ / / / /</span></p> <p><input type="radio"/> Handheld Ultrasonic Tool <span style="float: right;">/ / / / /</span></p> <p><input type="radio"/> Wet Magnetic Particle Test <span style="float: right;">/ / / / /</span></p> <p><input type="radio"/> Dry Magnetic Particle Test <span style="float: right;">/ / / / /</span></p> <p><input type="radio"/> Other _____ <span style="float: right;">/ / / / /</span></p>
<input type="checkbox"/> <b>Intentional Damage</b>	<p>8. Specify:</p> <p><input type="radio"/> Vandalism <span style="margin-left: 150px;"><input type="radio"/> Terrorism</span></p> <p><input type="radio"/> Theft of transported commodity <span style="margin-left: 50px;"><input type="radio"/> Theft of equipment</span></p> <p><input type="radio"/> Other _____</p>
<input type="checkbox"/> <b>Other Outside Force Damage</b>	<p>9. Describe: _____</p>

# 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)

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                       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. Has one or more internal inspection tool collected data at the point of the Incident?     Yes     No

5.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:

- Magnetic Flux Leakage Tool                      / / / / / /
- Ultrasonic    / / / / / /
- Geometry    / / / / / /
- Caliper    / / / / / /
- Crack    / / / / / /
- Hard Spot    / / / / / /
- Combination Tool                                    / / / / / /
- Transverse Field/Triaxial                        / / / / / /
- Other \_\_\_\_\_                                    / / / / / /

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

- Yes    ⇒    \*Most recent year tested: / / / / / /                      \*Test pressure (psig): / / / / / /
- No

7. Has one or more Direct Assessment been conducted on the pipeline segment?

- Yes, and an investigative dig was conducted at the point of the Incident    ⇒    Most recent year conducted: / / / / / /
- Yes, but the point of the incident was not identified as a dig site                      ⇒    Most recent year conducted: / / / / / /
- No

8. Has one or more non-destructive examination(s) been conducted at the point of the Incident since January 1, 2002?

- Yes     No

8.a If Yes, for each examination conducted since January 1, 2002, 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 \_\_\_\_\_                                    / / / / / /



**G6 - Equipment Failure** - \*only one **sub-cause** can be picked from shaded left-hand column

<input type="checkbox"/> <b>Malfunction of Control/Relief Equipment</b>	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"/> ESD System Failure <input type="radio"/> Other _____
<input type="checkbox"/> <b>Compressor or Compressor-related Equipment</b>	2. Specify: <input type="radio"/> Seal/Packing Failure <input type="radio"/> Body Failure <input type="radio"/> Crack in Body <input type="radio"/> Appurtenance Failure <input type="radio"/> Pressure Vessel Failure <input type="radio"/> Other _____
<input type="checkbox"/> <b>Threaded Connection/Coupling Failure</b>	3. Specify: <input type="radio"/> Pipe Nipple <input type="radio"/> Valve Threads <input type="radio"/> Mechanical Coupling <input type="radio"/> Threaded Pipe Collar <input type="radio"/> Threaded Fitting <input type="radio"/> Other _____
<input type="checkbox"/> <b>Non-threaded Connection Failure</b>	4. Specify: <input type="radio"/> O-Ring <input type="radio"/> Gasket <input type="radio"/> Seal (NOT compressor seal) or Packing <input type="radio"/> Other _____
<input type="checkbox"/> <b>Defective or Loose Tubing or Fitting</b>	
<input type="checkbox"/> <b>Failure of Equipment Body (except Compressor), Vessel Plate, or other Material</b>	
<input type="checkbox"/> <b>Other Equipment Failure</b>	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
  - 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
  - Other \_\_\_\_\_

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

<input type="checkbox"/> <b>Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage</b>	
<input type="checkbox"/> <b>Underground Gas Storage, Pressure Vessel, or Cavern Allowed or Caused to Overpressure</b>	1. Specify: <input type="radio"/> Valve Misalignment <input type="radio"/> Incorrect Reference Data/Calculation <input type="radio"/> Miscommunication <input type="radio"/> Inadequate Monitoring <input type="radio"/> Other _____
<input type="checkbox"/> <b>Valve Left or Placed in Wrong Position, but NOT Resulting in an Overpressure</b>	
<input type="checkbox"/> <b>Pipeline or Equipment Overpressured</b>	
<input type="checkbox"/> <b>Equipment Not Installed Properly</b>	
<input type="checkbox"/> <b>Wrong Equipment Specified or Installed</b>	
<input type="checkbox"/> <b>Other Incorrect Operation</b>	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

5.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 picked from shaded left-hand column

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

