









**\*\*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: \_\_\_\_\_





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:   /  /  /

|                                |   |
|--------------------------------|---|
| <b>PART G – APPARENT CAUSE</b> | <i>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).</i> |
|--------------------------------|---|

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

|  |   |
|--|---|
| <input type="checkbox"/> <b>External Corrosion</b> | <p><b>**1.</b> Results of visual examination:<br/> <input type="radio"/> Localized Pitting    <input type="radio"/> General Corrosion<br/> <input type="radio"/> Other _____</p> <p><b>2.</b> Type of corrosion: <i>(select all that apply)</i><br/> <input type="radio"/> Galvanic    <input type="radio"/> Atmospheric    <input type="radio"/> Stray Current    <input type="radio"/> Microbiological    <input type="radio"/> Selective Seam<br/> <input type="radio"/> Other _____</p> <p><b>3.</b> The type(s) of corrosion selected in Question 2 is based on the following: <i>(select all that apply)</i><br/> <input type="radio"/> Field examination    <input type="radio"/> Determined by metallurgical analysis<br/> <input type="radio"/> Other _____</p> <p><b>**4.</b> Was the failed item buried under the ground?<br/> <input type="radio"/> Yes ⇨ 4.a Was failed item considered to be under cathodic protection at the time of the incident?<br/>             <input type="radio"/> Yes ⇨ Year protection started: <u>  /  /  /  /  /  </u><br/>             <input type="radio"/> No</p> <p>4.b Was shielding, tenting, or disbonding of coating evident at the point of the incident?<br/>             <input type="radio"/> Yes    <input type="radio"/> No</p> <p>4.c Has one or more Cathodic Protection Survey been conducted at the point of the incident?<br/> <input type="radio"/> Yes, CP Annual Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u><br/> <input type="radio"/> Yes, Close Interval Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u><br/> <input type="radio"/> Yes, Other CP Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u><br/> <input type="radio"/> No</p> <p><input type="radio"/> No ⇨ 4.d Was the failed item externally coated or painted?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p><b>**5.</b> Was there observable damage to the coating or paint in the vicinity of the corrosion?<br/> <input type="radio"/> Yes    <input type="radio"/> No</p> |
|--|---|

|  |   |
|--|---|
| <input type="checkbox"/> <b>Internal Corrosion</b> | <p><b>**6.</b> Results of visual examination:<br/> <input type="radio"/> Localized Pitting    <input type="radio"/> General Corrosion    <input type="radio"/> Not cut open<br/> <input type="radio"/> Other _____</p> <p><b>7.</b> Cause of corrosion: <i>(select all that apply)</i><br/> <input type="radio"/> Corrosive Commodity    <input type="radio"/> Water drop-out/Acid    <input type="radio"/> Microbiological    <input type="radio"/> Erosion<br/> <input type="radio"/> Other _____</p> <p><b>8.</b> The cause(s) of corrosion selected in Question 7 is based on the following: <i>(select all that apply)</i><br/> <input type="radio"/> Field examination    <input type="radio"/> Determined by metallurgical analysis<br/> <input type="radio"/> Other _____</p> <p><b>9.</b> Location of corrosion: <i>(select all that apply)</i><br/> <input type="radio"/> Low point in pipe    <input type="radio"/> Elbow    <input type="radio"/> Drop-out<br/> <input type="radio"/> Other _____</p> <p><b>**10.</b> Was the gas/fluid treated with corrosion inhibitors or biocides?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p><b>**11.</b> Was the interior coated or lined with protective coating?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p><b>**12.</b> Were cleaning/dewatering pigs (or other operations) routinely utilized?<br/> <input type="radio"/> Not applicable - Not mainline pipe    <input type="radio"/> Yes    <input type="radio"/> No</p> <p><b>**13.</b> Were corrosion coupons routinely utilized?<br/> <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"/> <b>Earth Movement, NOT due to Heavy Rains/Floods</b> | **1. Specify: <input type="radio"/> Earthquake <input type="radio"/> Subsidence <input type="radio"/> Landslide<br><input type="radio"/> Other _____              |
| <input type="checkbox"/> <b>Heavy Rains/Floods</b>                            | 2. Specify: <input type="radio"/> Washout/Scouring <input type="radio"/> Flotation <input type="radio"/> Mudslide <input type="radio"/> Other _____               |
| <input type="checkbox"/> <b>Lightning</b>                                     | 3. Specify: <input type="radio"/> Direct hit <input type="radio"/> Secondary impact such as resulting nearby fires  |
| <input type="checkbox"/> <b>Temperature</b>                                   | **4. Specify: <input type="radio"/> Thermal Stress <input type="radio"/> Frost Heave<br><input type="radio"/> Frozen Components <input type="radio"/> Other _____ |
| <input type="checkbox"/> <b>High Winds</b>                                    |   |
| <input type="checkbox"/> <b>Other Natural Force Damage</b>                    | **5. Describe: _____  |

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

\*\*6. Were the natural forces causing the Incident generated in conjunction with an extreme weather event?  Yes  No

6.a If Yes, specify: (select all that apply)  Hurricane  Tropical Storm  Tornado  
 Other \_\_\_\_\_

**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?<br/> <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> <p><input type="radio"/> Magnetic Flux Leakage                    / / / / / /</p> <p><input type="radio"/> Ultrasonic    / / / / / /</p> <p><input type="radio"/> Geometry    / / / / / /</p> <p><input type="radio"/> Caliper    / / / / / /</p> <p><input type="radio"/> Crack    / / / / / /</p> <p><input type="radio"/> Hard Spot    / / / / / /</p> <p><input type="radio"/> Combination Tool                                    / / / / / /</p> <p><input type="radio"/> Transverse Field/Triaxial                    / / / / / /</p> <p><input type="radio"/> Other _____ / / / / / /</p> <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?</p> <p><input type="radio"/> Yes ⇒ Most recent year tested: / / / / / /<br/> Test pressure (psig): / / / / / /</p> <p><input type="radio"/> No</p> <p>**4. Has one or more Direct Assessment been conducted on the pipeline segment?</p> <p><input type="radio"/> Yes, and an investigative dig was conducted at the point of the Incident<br/> ⇒ Most recent year conducted: / / / / / /</p> <p><input type="radio"/> Yes, but the point of the Incident was not identified as a dig site<br/> ⇒ Most recent year conducted: / / / / / /</p> <p><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?<br/> <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> <p><input type="radio"/> Radiography    / / / / / /</p> <p><input type="radio"/> Guided Wave Ultrasonic                                    / / / / / /</p> <p><input type="radio"/> Handheld Ultrasonic Tool                                    / / / / / /</p> <p><input type="radio"/> Wet Magnetic Particle Test                                    / / / / / /</p> <p><input type="radio"/> Dry Magnetic Particle Test                                    / / / / / /</p> <p><input type="radio"/> Other _____ / / / / / /</p> |

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

- \*\*6. Did the operator get prior notification of the excavation activity?  Yes  No
- 6.a If Yes, Notification received from: (select all that apply)  One-Call System  Excavator  Contractor  Landowner



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><br><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:<br><input type="radio"/> Hurricane <input type="radio"/> Tropical Storm <input type="radio"/> Tornado<br><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?<br/> <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><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>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><input type="radio"/> Yes ⇒ Most recent year tested: / / / / / /<br/> Test pressure (psig): / / / / / /</p> <p><input type="radio"/> No</p> <p>**6. Has one or more Direct Assessment been conducted on the pipeline segment?</p> <p><input type="radio"/> Yes, and an investigative dig was conducted at the point of the Incident<br/> ⇒ Most recent year conducted: / / / / / /</p> <p><input type="radio"/> Yes, but the point of the Incident was not identified as a dig site<br/> ⇒ Most recent year conducted: / / / / / /</p> <p><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  | / / / / / /  |   |             |                                  |             |                                |             |                               |             |                             |             |                                 |             |  |             |   |             |                             |             |
| <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  | / / / / / /  |   |             |                                  |             |                                |             |                               |             |                             |             |                                 |             |  |             |   |             |                             |             |

|  |   |
|--|---|
|  | <p>7. Has one or more non-destructive examination been conducted at the point of the Incident since January 1, 2002?<br/> <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 <u>    /    /    /    /    /    </u></p> <p><input type="radio"/> Guided Wave Ultrasonic <u>    /    /    /    /    /    </u></p> <p><input type="radio"/> Handheld Ultrasonic Tool <u>    /    /    /    /    /    </u></p> <p><input type="radio"/> Wet Magnetic Particle Test <u>    /    /    /    /    /    </u></p> <p><input type="radio"/> Dry Magnetic Particle Test <u>    /    /    /    /    /    </u></p> <p><input type="radio"/> Other _____ <u>    /    /    /    /    /    </u></p> |
| <input type="checkbox"/> <b>Intentional Damage</b>         | <p>8. Specify:</p> <p><input type="radio"/> Vandalism <input type="radio"/> Terrorism</p> <p><input type="radio"/> Theft of transported commodity <input type="radio"/> Theft of equipment</p> <p><input type="radio"/> Other _____</p>   |
| <input type="checkbox"/> <b>Other Outside Force Damage</b> | <p>**9. Describe: _____</p>   |



**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><br><input type="radio"/> Control Valve <input type="radio"/> Instrumentation <input type="radio"/> SCADA<br><input type="radio"/> Communications <input type="radio"/> Block Valve <input type="radio"/> Check Valve<br><input type="radio"/> Relief Valve <input type="radio"/> Power Failure <input type="radio"/> Stopple/Control Fitting<br><input type="radio"/> Pressure Regulator <input type="radio"/> ESD System Failure<br><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<br><input type="radio"/> Appurtenance Failure <input type="radio"/> Pressure Vessel Failure<br><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<br><input type="radio"/> Threaded Pipe Collar <input type="radio"/> Threaded Fitting<br><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<br><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: _____<br>_____   |

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



**INSTRUCTIONS FOR FORM PHMSA F 7100.2 (Rev. xx-2009)  
INCIDENT REPORT – GAS TRANSMISSION AND GATHERING  
SYSTEMS**

**GENERAL INSTRUCTIONS**

Each gas transmission or gathering system operator shall file Form PHMSA F 7100.2 for an incident that meets the criteria in 49 CFR §191.3 as soon as practicable but not more than 30 days after the incident. Requirements for submitting reports are in §191.7.

Release of gas, for the purpose of maintenance or other routine activities, need not be reported if the only reportable criterion is loss of gas of \$50,000 or more as described in 49 CFR §191.3 under "Incident" (1)(ii). Damage from secondary ignition need not be reported unless the damage to facilities subject to Part 191 exceeds \$50,000. Secondary ignition is a fire where the origin is unrelated to the gas facilities, such as electrical fires, arson, etc, that subsequently damages gas facilities and causes a gas fire.

If you need copies of Form PHMSA F 7100.2 and/or instructions they can be found on the Pipeline Safety Community main page, <http://phmsa.dot.gov/pipeline>, by clicking the Forms hyperlink and scrolling down to the section entitled PHMSA/OPS Forms (accidents/incidents/annuals). If you have questions about this report or these instructions, please call (202) 366-8075. Please type or print all entries when submitting forms by mail or Fax.

**§191.3 Definitions.**

\* \* \* \* \*

***Incident* means any of the following events:**

**(1) An event that involves a release of gas from a pipeline or of liquefied natural gas or gas from an LNG facility and**

**(i) A death, or personal injury necessitating in-patient hospitalization;  
or**

**(ii) Estimated property damage, including cost of gas lost, of the operator or others, or both, of \$50,000 or more.**

**(2) An event that results in an emergency shutdown of an LNG facility.**

**(3) An event that is significant, in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2).**

**§191.5 Telephonic notice of certain incidents.**

**(a) At the earliest practicable moment following discovery, each operator shall give notice in accordance with paragraph (b) of this section of each incident as defined in §191.3.**

**(b) Each notice required by paragraph (a) of this section shall be made by telephone to 800-424-8802(in Washington, DC, 267-2675) and shall include the following information:**

**(1) Names of operator and person making report and their telephone numbers.**

**(2) The location of the incident.**

**(3) The time of the incident.**

**(4) The number of fatalities and personal injuries, if any.**

**(5) All other significant facts that are known by the operator that are relevant to the cause of the incident or extent of the damages.**

#### **§ 191.15 Transmission and gathering systems: Incident report.**

**(a) Except as provided in paragraph (c) of this section, each operator of a transmission or a gathering pipeline system shall submit Department of Transportation Form RSPA<sup>1</sup> F 7100.2 as soon as practicable but not more than 30 days after detection of an incident required to be reported under Sec. 191.5.**

**(b) Where additional related information is obtained after a report is submitted under paragraph (a) of this section, the operator shall make a supplemental report as soon as practicable with a clear reference by date and subject to the original report.**

**(c) The incident report required by paragraph (a) of this section need not be submitted with respect to LNG facilities.**

## **REPORTING METHODS**

**Use one of the following methods to submit your report. We prefer online reporting over hardcopy submissions.** If you prefer, you can mail or fax your completed reports to DOT/PHMSA.

---

<sup>1</sup> RSPA, the Research and Special Projects Administration, was a predecessor agency to PHMSA. The revised form is now designated PHMSA F 7100.2. This reference will be changed in the Code of Federal Regulations by rulemaking.

## 1. Online:

- a. Go to the PHMSA website at the following URL:  
<http://opsweb.rspa.dot.gov/cfdocs/opsapps/pipes/main.cfm>.  
  
(Alternatively, go to the Pipeline Safety Community main page  
<http://phmsa.dot.gov/pipeline>, click the ONLINE DATA ENTRY link listed in the third column of hyperlinks, click on the Incident Report Gas Transmission & Gathering Systems link)
- b. Enter Operator ID and PIN [If an operator does not have an Operator ID or a PIN, the website (<http://opsweb.rspa.dot.gov/cfdocs/opsapps/pipes/main.cfm>) includes directions on how to obtain one.]
- c. Click “add” to begin
- d. Click “submit” when finished. NOTE: For supplemental reports use steps 1a and 1b then click on the report ID to make corrections. Click “save” when finished.
- e. A confirmation page will appear for you to print and save for your records.

**If you submit your report online, PLEASE DO NOT MAIL OR FAX the completed report to DOT as this may result in duplicate entries.**

## 2. Mail to:

DOT/PHMSA Office of Pipeline Safety  
Information Resources Manager,  
1200 New Jersey Ave., SE  
East Building, 2<sup>nd</sup> Floor, (PHP-10)  
Room Number E22-321  
Washington, DC 20590

## 3. Fax to: Information Resources Manager at (202) 366-4566.

### RESCINDING A REPORT

An operator who reports an incident and upon subsequent investigation determines that the event did not meet the criteria in 49 CFR 191.3 may request that its report be rescinded. Requests for rescission should be submitted on operator letterhead and mailed or faxed to the Information Resources Manager at the address/fax number above. Requests may also be submitted by email to [InformationResources@dot.gov](mailto:InformationResources@dot.gov). Requests should include the following information:

- a. The Report ID, the unique 8-digit identifier assigned by PHMSA,
- b. Operator name,
- c. PHMSA-issued operator ID number,
- d. The number assigned by the National Response Center when telephonic report was made in accordance with 49 CFR 191.5,
- e. Date of the incident,
- f. Location of the incident (e.g., for onshore incidents: city, county, state), and
- g. A brief statement as to why the report should be rescinded.

## SPECIAL INSTRUCTIONS

1. Certain data fields must be completed before an Original Report will be accepted. The data fields that must be completed for an Original Report to be accepted are indicated on the form by a double asterisk (\*\*). If filing a hardcopy of this report, the report will not be accepted by PHMSA unless all of these fields have been completed. If filing on-line, your Original Report will not be able to be submitted until the required information has been provided, although your partially completed form can be saved on-line so that you can return at a later time to provide the missing information.
2. An entry should be made in each applicable space or check box, unless otherwise directed by the section instructions.
3. If the data is unavailable, enter “unknown” for text fields and leave numeric fields and fields using check boxes or “radio” buttons blank.
4. If possible, provide an **estimate** in lieu of answering a question with “unknown” or leaving the field blank. Estimates should be based on best-available information and reasonable effort.
5. For unknown or estimated data entries, the operator should file a supplemental report when additional information becomes available to finalize the report.
6. If the question is not applicable, please enter “N/A” for text fields and leave numeric fields and fields using check boxes or “radio” buttons blank.
7. For questions requiring numeric answers, all data fields should be filled in using zeroes when appropriate. When decimal points are required, **the decimal point should be placed in a separate block** in the data field.

Examples:

|   |   |
|---|---|
| (Part C, item 3.a, ) Nominal diameter of pipe (in): | <u>  /0/0/2/4/  </u> (24 inches)        |
|   | <u>  /3/./5/  </u> (3.5 inches)         |
| (Part C, item 3.b), Wall thickness (in)             | <u>  /0/./3/1/2/  </u> (0.312 inches)   |
| (Part C, item 3.c), SMYS                            | <u>  /0/5/2/./0/0/0/  </u> (52,000 psi) |

8. If **OTHER** is checked for any answer to a question, please include an explanation or description on the line provided next to the item checked.
9. Pay close attention to each question for the phrase:
  - a. *(select all that apply)*
  - b. *(select only one)*If the phrase does not exist for a given question, then “select only one” is the default instruction. “Select all that apply” means that you should choose all answers that are applicable. “Select only one” means that you should select the single, primary or most applicable answer. **DO NOT SELECT MORE ANSWERS THAN REQUESTED.**

10. **Date format** = mm/dd/yy or for year = /yyyy/

11. **Time format:** All times are reported as a 24-hour clock:

**Time format Examples:**

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

12. **Local time** always refers to time at the site of the incident.

## SPECIFIC INSTRUCTIONS

### PART A – GENERAL REPORT INFORMATION

**Report Type: (select all that apply)**

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

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

**Original Report**

Select this type of report if this is the **FIRST** report filed for this incident.

If all of the information requested is known and provided at the time the initial report is filed, including final property damages and failure cause information, check the box for “Final Report” as well as the box for “Original Report,” indicating that no further information will be forthcoming.

**Supplemental Report**

Select this type of report only if you have already filed an “Original Report” AND you are now providing new, updated, and/or corrected information. Multiple supplements are to be submitted, as necessary, in order to provide new, updated, and/or corrected information as it becomes available.

For Supplemental Reports filed by fax or mail, please check the **Supplemental Report** box, complete Part A, Items 1 through 6, and then enter information that has changed or is being added. Please do not enter previously submitted information that has not

changed other than Items 1-6, which is needed to provide a way to identify previously filed reports.

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

Operators are encouraged to file supplemental reports within one year in those instances where the supplemental report is used to update information from investigations that were still ongoing when the prior report was filed.

**Final Report**

Select this type of report if you are filing an “Original Report” for which no further information will be forthcoming (as described under “Original Report” above) or if you have already filed an “Original Report” AND you are now providing new, updated, and/or corrected information via a “Supplemental Report” AND you are reasonably certain that no further information will be forthcoming. (Note: If an Operator files one of the two types of “Final” Reports and then subsequently finds that new information needs to be provided, it should submit another “Supplemental Report” and select the appropriate box or boxes – “Supplemental + Final” (if appropriate) – for the newly submitted report and include an explanation in the PART H Narrative.)

Supplemental reports must be filed as soon as practicable following the Operator’s awareness of new, additional, or updated information. Failure to comply with these requirements can result in enforcement actions, including the assessment of civil penalties not to exceed \$100,000 for each violation for each day that such violation persists up to a maximum of \$1,000,000.

**In Part A, answer questions from 1 thru 19 by providing the requested information or by checking the appropriate box.**

**1. Operator’s OPS -Issued Operator Identification Number (OPID):**

The Pipeline and Hazardous Materials Safety Administration (PHMSA) assigns the operator’s identification number. Most OPIDs are 5 digits. Older OPIDs may contain fewer digits. If your OPID contains fewer than 5 digits, insert leading zeros to fill all blanks. Contact us at (202) 366-8075 if you need assistance with an identification number during our business hours of 8:30 AM to 5:00 PM Eastern Time.

**2. Name of Operator**

This is the company name used when registering for an Operator ID and PIN in the Online Data Entry System. For online entries, the Name of Operator should be automatically filled in based on the Operator Identification Number entered in question 1. If the name that appears does not coincide with the Operator ID, contact PHMSA at the number provided in Question 1.

**3. Address of Operator**

Enter the address of the operator's business office to which any correspondence related to the incident report should be sent.

#### **4. Local time (24-hour clock) and date of the Incident.**

For pipeline systems crossing multiple time zones, enter the time at the location of the Incident.

See page 5 for examples of **Date format** and **Time format** expressed as a 24-hour clock

#### **5. Location of Incident:**

The latitude and longitude of the incident are to be reported as Decimal Degrees with a minimum of 5 decimal places (e.g. Lat: 38.89664 Long: -77.04327), using the NAD83 or WGS84 datums.

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

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

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

All locations in the United States will have a negative longitude coordinate, **which has already been printed on the form.**

If you cannot locate the incident with a GPS or some other means, the U.S. Census Bureau provides a tool for determining latitude and longitude, (<http://tiger.census.gov/cgi-bin/mapbrowse-tbl>). You can use the online tool to identify the geographic location of the incident. The tool displays the latitude and longitude in decimal degrees below the map. Any questions regarding the required format, conversion or how to use the tool noted above can be directed to Amy Nelson (202.493.0591 or [amy.nelson@dot.gov](mailto:amy.nelson@dot.gov)).

#### **6. National Response Center (NRC) Report Number**

§ 191.5 requires that incidents meeting the criteria outlined in §191.3 be reported directly to the **24-hour National Response Center (NRC): at 1-800-424-8802** at the earliest practicable moment (generally within 2 hours). The NRC assigns numbers to each call. The number of that telephonic report is to be entered in Question 6.

#### **7. Local time (24-hr clock) and date of initial telephonic report to the National Response Center:**

Enter the time (local time at site of the Incident) and date of the telephonic report of Incident. The time should be shown by 24-hour clock notation (see page 5 for examples).

#### **8. Incident resulted from:**

Indicate whether the incident resulted from intentional or unintentional release of gas or from reasons other than release of gas.

**9. Gas released:**

Report the type of gas released. Examples of **synthetic gas** include landfill gas, biogas, and manufactured gas based on naphtha.

**10. Estimated volume of gas released unintentionally:**

Estimate the amount of gas that was released (in thousands of cubic feet) from the beginning of the incident until such time as gas is no longer being released from the pipeline system or intentional and controlled blowdown has commenced. Estimates should be based on best-available information.

**11. Estimated volume of intentional and controlled release/blowdown :**

Estimate the amount of gas that was released (in thousands of cubic feet) during any intentional release or controlled blowdown conducted as part of responding to or recovering from the incident. Intentional and controlled blowdown implies a level of control of the site and situation by the Operator such that the area and the public are protected during the controlled release.

**12. Estimated volume of accompanying liquid released**

If any accompanying liquid was released as a result of the incident, estimate the quantity released, in barrels. **Barrel** means a unit of measurement equal to **42 U.S. standard gallons**. The table below converts gallons to barrels.

| If estimated volume is |         | Report      |         | If estimated volume is |         | Report       |         |
|------------------------|---------|-------------|---------|------------------------|---------|--------------|---------|
| 5                      | gallons | <b>0.12</b> | barrels | 24                     |         | <b>0.57</b>  | barrels |
| 6                      | gallons | <b>0.14</b> | barrels | 25                     | gallons | <b>0.60</b>  | barrels |
| 7                      | gallons | <b>0.17</b> | barrels | 26                     | gallons | <b>0.62</b>  | barrels |
| 8                      | gallons | <b>0.19</b> | barrels | 27                     | gallons | <b>0.64</b>  | barrels |
| 9                      | gallons | <b>0.21</b> | barrels | 28                     | gallons | <b>0.67</b>  | barrels |
| 10                     | gallons | <b>0.24</b> | barrels | 29                     | gallons | <b>0.69</b>  | barrels |
| 11                     | gallons | <b>0.26</b> | barrels | 30                     | gallons | <b>0.71</b>  | barrels |
| 12                     | gallons | <b>0.29</b> | barrels | 31                     | gallons | <b>0.74</b>  | barrels |
| 13                     | gallons | <b>0.31</b> | barrels | 32                     | gallons | <b>0.76</b>  | barrels |
| 14                     | gallons | <b>0.33</b> | barrels | 33                     | gallons | <b>0.79</b>  | barrels |
| 15                     | gallons | <b>0.36</b> | barrels | 34                     | gallons | <b>0.81</b>  | barrels |
| 16                     | gallons | <b>0.38</b> | barrels | 35                     | gallons | <b>0.83</b>  | barrels |
| 17                     | gallons | <b>0.41</b> | barrels | 36                     | gallons | <b>0.86</b>  | barrels |
| 18                     | gallons | <b>0.43</b> | barrels | 37                     | gallons | <b>0.88</b>  | barrels |
| 19                     | gallons | <b>0.45</b> | barrels | 38                     | gallons | <b>0.91</b>  | barrels |
| 20                     | gallons | <b>0.48</b> | barrels | 39                     | gallons | <b>0.93</b>  | barrels |
| 21                     | gallons | <b>0.50</b> | barrels | 40                     | gallons | <b>0.95</b>  | barrels |
| 22                     | gallons | <b>0.52</b> | barrels | 41                     | gallons | <b>0.98</b>  | barrels |
| 23                     | gallons | <b>0.55</b> | barrels | 42                     | gallons | <b>1.000</b> | barrels |

### 13. Were there fatalities?

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

**Contractor employees working for the operator** means people hired to work for or on behalf of the operator of the pipeline.

**Non-operator emergency responders** means people responding to render professional aid at the incident scene including on-duty fire fighters, rescue workers, EMTs, police officers, etc. "Good Samaritans" that stop to assist should be reported as "General public."

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

**14. Were there injuries requiring inpatient hospitalization?**

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

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

Report any shutdowns that occur because of damage incurred during the incident or to make repairs necessitated by the incident. Instances in which an incident was caused by a release that did not involve damage to the pipeline (e.g., incorrect operations) and in which no need for repairs resulted need not be reported as being shutdown, even though the pipeline may have been shutdown as a precautionary measure to inspect for damages.

If No is selected, explain the reason that no shutdown was needed in the blank provided.

If Yes is selected, complete questions 15.a and 15.b.

**15.a. Local time (24hr clock) and date of shutdown**

For pipeline systems crossing multiple time zones, enter the time at the location of the incident.

**15.b. Local time pipeline/facility restarted**

Report the time the pipeline/facility was restarted (if applicable). If the pipeline or facility has not been restarted at the time of reporting, check “Still shut down” and then include the restart time in a future Supplemental Report.

**16. Did the gas Ignite?**

**Ignite** means the gas caught fire.

**17. Did the gas Explode?**

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

**18. Number of General Public Evacuated:**

The number of people evacuated should be estimated based on operator knowledge, or police, fire or other emergency responder reports. If there was no evacuation involving the general public, report “0.” If an estimate is not possible for some reason, leave blank but include an explanation of why it was not possible in the Part H Narrative.

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

Enter the time the operator became aware that an event constituted an incident (i.e., identified the incident) and the time operator personnel or contract resources (i.e., personnel or equipment) arrived on site. All times should be local times at the location of the incident.

**PART B – ADDITIONAL LOCATION INFORMATION**

**1. Was the origin of the incident onshore?**

Answer Yes or No as appropriate and complete only the designated questions.

### **For onshore pipelines**

#### **2 – 5. Incident Location**

Provide the state, zip code, city, and county/parish in which the incident occurred.

#### **6. Operator Designated Location:**

This is intended to be the designation that the operator would use to identify the location of the Incident on its pipeline system. Enter the appropriate milepost/valve station or survey station number. This designator is intended to allow PHMSA personnel to both return to the physical location of the Incident using the operator's own maps and identification systems as well as to identify the "paper" location of the Incident when reviewing operator maps and records.

#### **7. Pipeline/Facility Name**

Multiple pipeline systems and/or facilities are often operated by a single operator. This information identifies the particular pipeline system or pipeline facility name commonly used by the operator on which the Incident occurred, for example, the "West Line 24" Pipeline", or "Gulf Coast Pipeline".

#### **8. Segment name/ID**

Within a given pipeline system and/or facility, there are typically multiple segment or station identifiers, names, or ID's which are commonly used by the operator. The information to be reported here helps locate and/or record the more precise incident location, for example, "Segment 4-32", or "MP 4.5 to Wayne County Line", or "Dublin Compressor Station", or "Witte Reducing Station".

#### **9. Was the incident on Federal Lands other than the Outer Continental Shelf?**

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

#### **10. Location of incident**

**Operator-controlled Property** would normally apply to an operator's facility, which may or may not have controlled access, but which is often fenced or otherwise marked with discernible boundaries. This "operator-controlled property" does not refer to the pipeline right-of-way, which is a separate choice for this question.

#### **11. Area of Incident (as found)**

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

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

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

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

**Typical aboveground facility piping** includes any pipe or components installed aboveground such as those at compressor stations, valve sites, and reducing stations.

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

## **12. Did Incident occur in a crossing?**

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

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

Use **Water Crossing** if the pipeline is in the water, beneath the water, in contact with the natural ground of the lake bed, etc., or buried beneath the bed of a lake, reservoir, stream or creek, whether the crossing happens to be flowing water at the time of the incident or not. The name of the body of water should be provided if it is commonly known and understood among the local population. (The purpose of this information is to allow persons familiar with the area in which the incident occurred to identify the location and understand it in its local context. Research to identify names that are not commonly used is not necessary since such names would not fulfill the intended purpose. If a body of water does not have a name that is commonly used and understood in the local area, this field should be left blank).

For **Approximate water Depth (ft)** of the lake, reservoir, etc., estimate the typical water depth at the location and time of the incident, allowing for seasonal, weather-related and other factors which may affect the water depth from time to time.

**For offshore pipelines**

**13. Approximate water depth (ft.):**

This should be the estimated depth from the surface of the water to the seabed at the point of the incident regardless of whether the pipeline is below/on the bottom, underwater but suspended above the bottom, or above the surface (e.g., on a platform).

**14. Origin of Incident**

Area and Tract/Block numbers should be provided for either State or OCS waters, whichever is applicable.

For Nearest County/Parish, as with the name of an onshore body of water (see question 12 above), the data collected is intended to allow persons familiar with the area in which the incident occurred to identify the location and understand it in its local context. Accordingly, it is not necessary to take measurements to determine which county/parish is “nearest” in cases where the incident location is approximately equidistant from two (or more). In such cases, the name of one of the nearby counties/parishes should be provided.

**PART C – ADDITIONAL FACILITY INFORMATION**

**1. Is the pipeline or facility [Interstate or Intrastate]?**

**Interstate** gas pipeline facility means a gas pipeline facility used to transport gas and subject to the jurisdiction of the Federal Energy Regulatory Commission under the Natural Gas Act (15 U.S.C. 717 et seq.).

**Intrastate** gas pipeline facility means a gas pipeline facility within a State not subject to the jurisdiction of the FERC under the Natural Gas Act (15 U.S.C. 717 et seq.).

**3. Item involved in Incident**

**Pipe** (whether pipe body or pipe seam) means the pipe through which product is transported, not including auxiliary piping, tubing or instrumentation

**Nominal diameter of pipe** is also called **Nominal pipe size**. It is the diameter in whole number inches (except for pipe less than 4”) used to describe the pipe size; for example, 8-5/8 pipe has a nominal pipe size of 8”. Decimals are unnecessary for this measure (except for pipe less than 4”).

Enter **pipe wall thickness** in inches. Wall thickness is typically less than an inch, and is standard among different pipeline types and manufacturers. Accordingly, use three decimal places to report wall thickness: 0.312, 0.281, etc.

**SMYS** means specified minimum yield strength and is the yield strength prescribed by the specification under which the material is purchased from the manufacturer.

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

**Pipe seam** means the longitudinal seam (longitudinal weld) created during manufacture of the joint of pipe.

#### **Pipe Seam Type Abbreviations**

**SAW** means submerged arc weld

**ERW** means electric-resistance weld

**DSAW** means double submerged arc weld

**Auxiliary piping** means piping, usually small in diameter that supports the operation of the mainline or facility piping and does not include tubing. Examples of auxiliary piping include discharge and drain lines, etc.

If the incident occurred on an item not provided in this section, check the OTHER box and specify in the space provided the item that failed.

#### **6. Type of release Involved (*select only one*):**

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

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

**Rupture** means a loss of containment event that immediately impairs the operation of the pipeline. Pipeline ruptures have the potential to be severely detrimental to safety and the environment. The terms “circumferential” and “longitudinal” refer to the general direction or orientation of the rupture relative the pipe’s axis. They do not exclusively refer to a failure involving a circumferential weld such as a girth weld, or to a failure involving a longitudinal weld such as a pipe seam. (Precise measurement of size – e.g., micrometer – is not needed. Approximate measurements can be provided in inches and decimals.)

### **PART D – ADDITIONAL CONSEQUENCE INFORMATION**

#### **§192.903 What definitions apply to this subpart?**

\* \* \* \* \*

**High consequence area means an area established by one of the methods described in paragraphs (1) or (2) as follows:**

**(1) An area defined as--**

**(i) A Class 3 location under Sec. 192.5; or**

**(ii) A Class 4 location under Sec. 192.5; or**

**(iii) Any area in a Class 1 or Class 2 location where the potential impact radius is greater than 660 feet (200 meters), and the area within a potential impact circle contains 20 or more buildings intended for human occupancy; or**

**(iv) Any area in a Class 1 or Class 2 location where the potential impact circle contains an identified site.**

**(2) The area within a potential impact circle containing--**

**(i) 20 or more buildings intended for human occupancy, unless the exception in paragraph (4) applies; or**

**(ii) An identified site.**

**(3) Where a potential impact circle is calculated under either method (1) or (2) to establish a high consequence area, the length of the high consequence area extends axially along the length of the pipeline from the outermost edge of the first potential impact circle that contains either an identified site or 20 or more buildings intended for human occupancy to the outermost edge of the last contiguous potential impact circle that contains either an identified site or 20 or more buildings intended for human occupancy. (See figure E.I.A. in appendix E.)**

## **2. Did this Incident occur in a High Consequence Area (HCA)?**

This question should be answered based on the classification of the involved segment in the operator's integrity management (IM) program at the time of the incident.

### **2.a. Specify the Method used to identify the HCA:**

Answer this question only if the incident occurred in an HCA.

As defined in §192.903, HCAs are determined by one of two methods: Method (1) uses class locations, and Method (2) uses potential impact circles. The operator should identify the method used within its IM program to determine that the location at which the incident occurred was an HCA.

## **3. What is the PIR (Potential Impact Radius) for the location of this Incident?**

An operator should answer this question for all incidents, regardless of whether or not the incident occurred in a high consequence area (HCA) or of the method used to identify an HCA. A PIR is one of the two methods for identifying an HCA, and this question and those immediately following are intended to collect data from actual incidents as part of a continuing effort to assure that the definition of a PIR is appropriate for that purpose.

PIR is defined in §191.903 as the radius of a circle within which the potential failure of a pipeline could have significant impact on people or property. PIR is determined by the formula:

$$r = 0.69 * \sqrt{p * d^2}$$

where `r` is the radius of a circular area in feet surrounding the point of failure,  
`p` is the maximum allowable operating pressure (MAOP) in the pipeline segment in pounds per square inch and  
`d` is the nominal diameter of the pipeline in inches.

(0.69 is the factor for natural gas. This number will vary for other gases depending upon their heat of combustion. An operator transporting gas other than natural gas must use section 3.2 of ASME/ANSI B31.8S-2001 (Supplement to ASME B31.8; incorporated into the regulations by reference, see Sec. 192.7) to calculate the impact radius formula.)

**4. Were any structures outside the PIR impacted or otherwise damaged by heat/fire resulting from the incident?**

Report any damage to structures further from the point of failure than the PIR distance that resulted from heat radiation or fires started as a result of the incident.

**5. Were any structures outside the PIR impacted or otherwise damaged NOT due to heat/fire resulting from the incident?**

This would include damage by blast effects, impact from missiles dislodged by a pipeline rupture, etc.

**6. Were any of the fatalities or injuries reported for persons located outside the PIR?**

This refers to the fatalities and injuries reported in Part A, questions 13 and 14.

**7. Estimated cost to Operator:**

All relevant costs to the operator must be included on the initial written incident report as well as supplemental reports. This includes (but is not limited to) costs due to property damage to the operator's facilities and to the property of others, gas lost, facility repair and replacement, and environmental cleanup and damage. Do not report costs incurred for facility repair, replacement, or change that are not related to the incident done solely for convenience. An example of doing work solely for convenience is working on non-leaking facilities unearthed because of the incident. Litigation and other legal expenses related to the Incident are not reportable.

Operators should report costs based on the best estimate available at the time a report is submitted. It is likely that an estimate of final repair costs may not be available when the initial report must be submitted (30 days, per § 191.15). The best available estimate of these costs should be included in the initial report. For convenience, this estimate can be revised, if needed, when supplemental reports are filed for other reasons, however, when

no other changes are forthcoming, supplemental reports should be filed as new cost information becomes available. If supplemental reports are not submitted for other reasons, a supplemental report should be filed for the purpose of correcting the estimated cost if these costs differ from those already reported by 20 percent or \$20,000, whichever is greater.

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

**Paid/reimbursed** means that the entity experiencing the property damage was compensated by the operator or operator's representative for the damage or the cost to repair the damage.

**Cost of gas released unintentionally** should be based on the volume reported in Part A, Question 10.

**Cost of gas released during intentional and controlled blowdown** should be based on the volume reported in Part A, Question 11.

**Operator's property damage** estimates generally include physical damage to the property of Operator or Owner Company such as the estimated installed value of the damaged pipe, coating, component, materials or equipment due to the Incident, excluding litigation and other legal expenses related to the incident.

When estimating the **Cost of repairs** to company facilities, the standard shall be the cost necessary to safely restore property to its predefined level of service. Property damage estimates include the cost to access, excavate and repair the pipeline using methods, materials, and labor necessary to re-establish operations at a predetermined level. These costs may include the cost of repair sleeves or clamps, re-routing of piping, or the removal from service of an appurtenance or pipeline component. When more comprehensive repairs or improvements are justified but not required for continued operation, the cost of such repairs or replacement is not attributable to the incident. Costs associated with improvements to the pipeline to mitigate the risk of future failures are not included.

Estimated cost of **Operator's emergency response** includes emergency response operations necessary to return the incident site to a safe state, actions to minimize the volume of gas released, conduct reconnaissance, and to identify the extent of incident impacts. They include materials, supplies, labor, and benefits. Costs related to stakeholder outreach, media response, etc. should not be included.

**Other costs** should not include estimated cost categories separately listed above.

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

## PART E – ADDITIONAL OPERATING INFORMATION

**4. Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), 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 ?**

Consider both voluntary and mandated pressure restrictions. A pressure restriction should be considered mandated by PHMSA or a state regulator if it was directed by an order or other formal correspondence. Pressure reductions imposed by the operator as a result of regulatory requirements, e.g., a pressure reduction taken because an anomaly identified during an IM assessment could not be repaired within the required schedule (192.933(d)), should not be considered mandated by PHMSA.

**5.a. Type of upstream valve used to initially isolate release source**

Identify the type of valve used to initially isolate the release on the upstream side. In general, this will be the first upstream valve selected by the Operator to minimize the release volume but may not be the closest to the incident site.

**5.b. Type of downstream valve used to initially isolate release source**

Identify the type of valve used to initially isolate the release on the downstream side. In general, this will be the first downstream valve selected by the Operator to minimize the release volume but may not be the closest to the incident site.

**5.c. Length of segment isolated between valves (ft):**

Identify the length in feet between the valves identified in item 5.a and 5.b that were initially used to isolate the incident area.

**5.f. Function of pipeline system**

**Transmission System** means pipelines that are part of a system whose principal purpose is transmission of gas.

**Transmission Line of Distribution System** means a pipeline that meets the definition of “transmission line” in §192.3 but which is operated as part of a distribution pipeline system. Typically, this includes portions of the distribution pipeline system for which the operating stress level exceeds 20 percent SMYS.

**SMYS** means specified minimum yield strength and is the yield strength prescribed by the specification under which the material is purchased from the manufacturer.

**Type A and Type B Gathering** means a pipeline that transports gas from a current production facility to a transmission line or main and that meets the criteria for either Type A or Type B in §192.8.

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

This does not mean a system exclusively for leak detection.

**6.a. Was it operating at the time of the Incident?**

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

**6.b. Was it fully functional at the time of the Incident?**

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

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

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

Check No if data from SCADA was not used to assist with identification of the incident.

**7. How was the incident initially identified for the Operator? (select only one)**

**Controller** per the definition in API RP 1168 means a qualified individual whose function within a shift is to remotely monitor and/or control the operations of entire or multiple sections of pipeline systems via a SCADA system from a pipeline control room, and who has operational authority and accountability for the daily remote operational functions of pipeline systems.

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

**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?**

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

**Cause** means an action or lack of action that directly led to or resulted in the pipeline incident.

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

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

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

## **PART F – DRUG & ALCOHOL TESTING INFORMATION**

Requirements for post-incident drug and alcohol tests are in 49 CFR 199.105 and 225 respectively. If the incident circumstances were such that tests were not required by these sections, and if no tests were conducted, check no. If tests were administered, report separately the number of operator employees and contractors working for the operator who were tested and who failed.

## **PART G – APPARENT CAUSE**

**In PART G – Apparent Cause**

**Complete only one of the eight sections listed under G1 thru G8**

**After identifying the main cause category as designated by G1 thru G8, select the one, single sub-cause that best describes the proximate cause of the incident in the shaded column on the left. Answer the corresponding questions that accompany your selected sub-cause.**

### **G1 – Corrosion Failure**

Corrosion includes a leak or failure caused by galvanic, atmospheric, stray current, microbiological, or other corrosive action, and, for the purposes of this reporting, includes selective seam corrosion. A corrosion leak is not limited to a hole in the pipe. If the bonnet or packing gland on a valve or flange on piping deteriorates or becomes loose and leaks due to corrosion and failure of bolts, it is classified as Corrosion. (If the bonnet, packing, or other gasket has deteriorated before the end of its expected life but not due to corrosive action, the failure should be classified as a Equipment Failure – G6.)

#### **External Corrosion**

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

#### **Internal Corrosion**

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

### 13. Were corrosion coupons routinely utilized?

For purposes of these questions, “routinely” refers to an action that is performed on more than a sporadic or one-time basis as part of a regular program with the intent to ensure that water build-up and/or settling and internal corrosion do not occur.

#### **Either External or Internal Corrosion**

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

**Magnetic Flux Leakage Tool** is an in-line inspection tool using an imposed magnetic flux to detect instances of pipe wall loss from corrosion. This includes low- and high-resolution MFL tools. It does not include transverse flux MFL tools, which are a separate choice in this question.

**Ultrasonic** refers to an in-line inspection tool that uses ultrasonic technology to measure wall thickness and detect instances of wall loss.

**Transverse Field/Triaxial** tools are specialized magnetic flux leakage tools that use a flux oriented to improve ability to detect crack anomalies.

**Combination Tool** refers to any in-line inspection tool that uses a combination of these inspection technologies in a single tool.

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

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

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

This refers to direct assessment as defined in 49 CFR 195.553. Instances in which one or more indirect monitoring tools (e.g., close interval survey, DCVG) have been used that might be used as part of direct assessment but which have not been used as part of the direct assessment process defined in 195.553 do not constitute a Direct Assessment for purposes of this question.

## **G2 – Natural Force Damage**

This category includes all outside forces attributable to causes NOT involving humans.

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

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

**Lightning** includes both damage and/or fire caused by a direct lightning strike and damage and/or fire as a secondary effect from a lightning strike in the area. An example of such a secondary effect would be a forest fire started by lightning that results in damage to a pipeline system asset which results in an incident.

**Temperature** refers to those causes that are related to ambient temperature effects, either heat or cold, where temperature was the initial cause.

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

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

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

### **G3 – Excavation Damage**

This section covers damage inflicted by the operator, operator’s contractor, or entities unrelated to the operator during excavation that results in an immediate release of gas. For damage from outside forces OTHER than excavation which results in an immediate release, use G2 “Natural Force Damage” or G4 “Other Outside Force,” as appropriate. For a strike or other damage to a pipeline or facility that results in a later release, report the incident in Section G4 as “Rupture or Failure Due to Previous Mechanical Damage.”

#### **Excavation Damage by Operator (First Party)**

Check this sub-cause if the incident was caused as a result of excavation by a direct employee of the operator.

#### **Excavation Damage by Operator’s Contractor (Second Party)**

Check this sub-cause if the incident was caused as a result of excavation by the operator’s contractor or agent or other party working for the operator.

#### **Excavation Damage by Third Party**

Check this sub-cause if the incident was caused by excavation damage resulting from actions by personnel or other third parties not working for or acting on behalf of the operator or its agent.

#### **Previous Damage due to Excavation Activity**

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

**Magnetic Flux Leakage Tool** is an in-line inspection tool using an imposed magnetic flux to detect instances of pipe wall loss from corrosion. Includes low- and high-

resolution MFL tools. Does not include transverse flux MFL tools, which are a separate choice in this question.

**Ultrasonic** refers to an in-line inspection tool that uses ultrasonic technology to measure wall thickness and detect instances of wall loss.

**Transverse Field/Triaxial** tools are specialized magnetic flux leakage tools that use a flux oriented to improve ability to detect crack anomalies.

**Combination Tool** refers to any in-line inspection tool that uses a combination of these inspection technologies in a single tool.

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

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

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

This refers to direct assessment as defined in 49 CFR 195.553. Instances in which one or more indirect monitoring tools (e.g., close interval survey, DCVG) have been used that might be used as part of direct assessment but which were not used as part of the direct assessment process defined in 195.553 do not constitute a Direct Assessment for purposes of this question.

**7. – 17.** Complete these questions for any excavation damage sub-cause. Instructions for answering these questions can be found at CGA’s web site, <https://www.damagereporting.org/dr/control/userGuide.do>.

**G4 – Other Outside Force Damage**

This section covers incidents caused by outside force damage, other than excavation damage or natural forces. Check the most appropriate one sub-cause in this section that applies and answer any questions.

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

applies to situations where the fire occurred before and caused the release. An example of such a failure would be an explosion/fire at a neighboring facility or installation (chemical plant, tank farm, other industrial facility) that results in a release at the operator’s facility. (Note that an incident report is required only if damage to facilities subject to Part 192 exceeded \$50,000). This section should not be used if the release occurred first and then the gas ignited. If the fire is known to have been started as a result of a lightning strike, the incident’s cause should be classified under Section G2, “Natural Force Damage.” Arson events directed at harming the pipeline or the operator should be reported as “Intentional Damage” in this section. Forest fires that are caused by human activity and result in a release should be reported in this section.

**Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation.** An example of this sub-cause would be a stopple tee that releases gas when damaged by a pickup truck maneuvering near the pipeline. Other motorized vehicles or equipment include tractors, backhoes, bulldozers and other tracked vehicles, and heavy equipment that can move. Include under this sub-cause incidents caused by vehicles operated by the pipeline operator, the pipeline operator's contractor, or a third party and specify the vehicle/equipment operator's affiliation. Pipeline incidents resulting from vehicular traffic loading or other contact should also be reported in this category. If the activity involved digging, drilling, boring, grading, cultivation or similar activities, report in Section G3 "Excavation Damage".

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

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

**Previous Mechanical Damage NOT Related to Excavation.** This sub-cause covers incidents where damage occurred at some time prior to the release, and would include prior excavation damage, prior outside force damage of an unknown nature, prior natural force damage, and prior damage from other outside forces. Incidents resulting from damage sustained during construction, installation, or fabrication of the pipe or a weld should be reported under Section G5, "Material Failure of Pipe or Weld."

### **Intentional Damage**

**Vandalism** means willful or malicious destruction of the operator's pipeline facility or equipment. This category would include pranks, systematic damage inflicted to harass the operator, motor vehicle damage that was inflicted intentionally, and a variety of other intentional acts.

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

**Theft** means damage by any individual or entity, by any mechanism, specifically to steal, or attempt to steal, the transported gas or pipeline equipment.

### **Other**

Describe in the space provided and, if necessary, provide additional explanation in Part H.

## **G5 – Material Failure of Pipe or Weld**

Use this section to report material failures only if “Item Involved in Incident” (Part C, Question 3) is “**Pipe**” (whether pipe body or pipe seam) or “**Weld.**”

This section includes leaks, ruptures or other failures from defects within the material of the pipe body or within the pipe seam or other weld due to faulty manufacturing procedures, defects resulting from poor construction/installation practices, and in-service stresses such as vibration, fatigue and environmental cracking.

**Construction-, Installation-, or Fabrication-related** includes leaks in or failures of originally sound material due to force being applied during construction or installation that caused a dent, gouge, excessive stress, or some other defect that eventually failed resulting in an incident. Included are leaks in or failures of wrinkle bends, field welds, and damage sustained in transportation to the construction or fabrication site.

**Original Manufacturing-related (NOT girth weld or other welds formed in the field)** means an inherent flaw in the material or weld that occurred in the manufacture or at a point prior to construction, fabrication or installation. Therefore, this option is not appropriate for wrinkle bends, field welds, girth welds, or other joints fabricated in the field. Use this option for failures such as those due to defects of the longitudinal weld or inclusions in the pipe body.

If **Construction, Installation, Fabrication-related** or **Original Manufacturing-related** is selected, then select the failure mechanism.

Examples of Mechanical Stress include failures related to overburden or loss of support.

## **G6 – Equipment Failure**

This section applies to failures of items **other than** Pipe Body, Pipe Seam, or Welds.

### **Malfunction of Control/Relief Equipment**

Examples of this type of incident cause include: overpressurization resulting from malfunction of control or alarm device; relief valve malfunction: valves failing to open or close on command; or valves which opened or closed when not commanded to do so. If

overpressurization or some other aspect of this incident was caused by incorrect operation, the incident should be reported under Section G7, “Incorrect Operation.”

**ESD System Failure** means failure of an emergency shutdown system.

### **G7 – Incorrect Operation**

These types of incidents most often occur during operating, maintenance or repair activities. Some examples of this type of failure are improper valve selection or operation, inadvertent overpressurization, or improper selection or installation of equipment. The unintentional ignition of the transported gas during a welding or maintenance activity would also be included in this sub-cause. These types of incidents often involve training or judgment errors.

### **G8 – Other Incident Cause**

This section is provided for incident causes that do not fit in any of the main cause categories listed in Sections G1 through G7.

If the incident cause is known but doesn't fit in any category in sections G1 through G7, check the **Miscellaneous** box and enter a description of the incident and continue in Part H, Narrative Description of the Incident, if more space is needed.

If the incident cause is unknown at time of filing this report, check the **Unknown** box in this section and select one reason from the accompanying two choices. If the investigation is not completed and the cause of the incident is thus still to be determined, file a supplemental report once the investigation is completed to report the apparent cause.

## **PART H – NARRATIVE DESCRIPTION OF THE INCIDENT**

*(Attach additional sheets as necessary)*

Concisely describe the incident, including the facts, circumstances, and conditions that may have contributed directly or indirectly to causing the incident. Include secondary and contributing causes when possible, or any other factors associated with the cause that are deemed pertinent. Use this section to clarify or explain unusual conditions, to provide sketches or drawings, and to explain any estimated data. Operators submitting reports on-line will be afforded the opportunity to attach/upload files containing sketches, drawings, or additional data.

If you checked the Miscellaneous block in Section G8, the narrative should describe the incident in detail, including all known or suspected causes and possible contributing factors.

Operators should use the narrative to describe any secondary causes that they consider important but which could not be reported in section G since only the primary cause is reported there.

## **PART I – PREPARER AND AUTHORIZED SIGNATURE**

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

An Authorized Signature must be obtained from an officer, manager, or other person whom the operator has designated to review and approve (and sign and date) the report. This individual is responsible for assuring the accuracy and completeness of the reported data. In addition to their title, a phone number and email address are to be provided for the individual signing as the Authorized Signature.