



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

**INCIDENT REPORT –
NATURAL AND OTHER GAS TRANSMISSION
AND GATHERING PIPELINE SYSTEMS**

Report Date _____
No. _____
(DOT Use Only)

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0522. Public reporting for this collection of information is estimated to be approximately 10 hours per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

INSTRUCTIONS

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

PART A – KEY REPORT INFORMATION

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

1. Operator's OPS-issued Operator Identification Number (OPID): / / / / /

2. Name of Operator: _____

3. Address of Operator:

3.a _____
(Street Address)

3.b _____
(City)

3.c State: / / /

3.d Zip Code: / / / / / - / / / / /

4. Local time (24-hr clock) and date of the Incident:
/ / / / / / / / / / / / / / /
Hour Month Day Year

5. Location of Incident:
Latitude: / / / . / / / / / / / /
Longitude: - / / / / / . / / / / / / / /

6. National Response Center Report Number:
/ / / / / / / /

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

8. Incident resulted from:

- Unintentional release of gas
- Intentional release of gas
- Reasons other than release of gas

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

- Natural Gas
- Propane Gas
- Synthetic Gas
- Hydrogen Gas
- Landfill Gas
- Other Gas ➡ Name: _____

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

11. Estimated volume of intentional and controlled release/blowdown : / / / / / / / / Thousand Cubic Feet (MCF)

12. Estimated volume of accompanying liquid released: / / / / / / / / Barrels

13. Were there fatalities? Yes No
 If Yes, specify the number in each category:

13.a Operator employees / / / / / / / / /

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

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

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

13.e General public / / / / / / / / /

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

14. Were there injuries requiring inpatient hospitalization? Yes No
 If Yes, specify the number in each category:

14.a Operator employees / / / / / / / / /

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

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

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

14.e General public / / / / / / / / /

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

15. Was the pipeline/facility shut down due to the incident?
 Yes No ⇨ Explain: _____

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

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

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

16. Did the gas ignite? Yes No

17. Did the gas explode? Yes No

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

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

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

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

PART B – ADDITIONAL LOCATION INFORMATION

1. Was the origin of the Incident onshore?
 Yes (Complete Questions 2-12) No (Complete Questions 13-15)

If Onshore:

2. State: / / / /
3. Zip Code: / / / / - / / / / / /
- 4 _____ 5 _____
City County or Parish
6. Operator designated location: (select only one)
 Milepost/Valve Station (specify in shaded area below)
 Survey Station No. (specify in shaded area below)
/ / / / / / / / / / / / / / / /
7. Pipeline/Facility name: _____
8. Segment name/ID: _____
9. Was Incident on Federal land, other than the Outer Continental Shelf (OCS)? Yes No
10. Location of Incident: (select only one)
 Operator-controlled property
 Pipeline right-of-way
11. Area of Incident (as found): (select only one)
 Belowground storage or aboveground storage vessel, including attached appurtenances
 Underground ⇨ Specify: Under soil
 Under a building Under pavement
 Exposed due to excavation
 In underground enclosed space (e.g., vault)
 Other _____
Depth-of-Cover (in): / / / / / / / /
 Aboveground ⇨ Specify:
 Typical aboveground facility piping or appurtenance
 Overhead crossing
 In or spanning an open ditch
 Inside a building Inside other enclosed space
 Other _____
 Transition Area ⇨ Specify: Soil/air interface Wall sleeve
 Pipe support or other close contact area
 Other _____
12. Did Incident occur in a crossing? Yes No
If Yes, specify type below:
 Bridge crossing Specify: Cased Uncased
 Railroad crossing (select all that apply)
 Cased Uncased Bored/drilled
 Road crossing (select all that apply)
 Cased Uncased Bored/drilled
 Water crossing
⇨ Specify: Cased Uncased
Name of body of water, if commonly known:

Approx. water depth (ft) at the point of the Incident:
/ / / / / / / /
(select only one of the following)
 Shoreline/Bank crossing
 Below water, pipe in bored/drilled crossing
 Below water, pipe buried below bottom (NOT in bored/drilled crossing)
 Below water, pipe on or above bottom

If Offshore:

13. Approximate water depth (ft.) at the point of the Incident:
/ / / / / / / /
14. Origin of Incident:
 In State waters
⇨ Specify: State: / / / /
Area: _____
Block/Tract #: / / / / / / / /
Nearest County/Parish: _____
 On the Outer Continental Shelf (OCS)
⇨ Specify:
Area: _____
Block #: / / / / / / / /
15. Area of Incident: (select only one)
 Shoreline/Bank crossing or shore approach
 Below water, pipe buried or jetted below seabed
 Below water, pipe on or above seabed
 Splash Zone of riser
 Portion of riser outside of Splash Zone, including riser bend
 Platform

PART C – ADDITIONAL FACILITY INFORMATION

1. Is the pipeline or facility:

- Interstate
- Intrastate

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

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

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

Pipe ⇨ Specify: Pipe Body Pipe Seam

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

3.b Wall thickness (in): / / / / / / /

3.c SMYS (Specified Minimum Yield Strength) of pipe (psi): / / / / / / /

3.d Pipe specification: _____

3.e Pipe Seam ⇨ Specify: Longitudinal ERW - High Frequency Single SAW Flash Welded
 Longitudinal ERW - Low Frequency DSAW Continuous Welded
 Longitudinal ERW – Unknown Frequency Furnace Butt Welded
 Spiral Welded ERW Spiral Welded SAW Spiral Welded DSAW
 Lap Welded Seamless Other _____

3.f Pipe manufacturer: _____

3.g Year of manufacture: / / / / / / /

3.h Pipeline coating type at point of Incident

⇨ Specify: Fusion Bonded Epoxy Coal Tar Asphalt Polyolefin
 Extruded Polyethylene Field Applied Epoxy Cold Applied Tape Paint
 Composite None Other _____

Weld, including heat-affected zone ⇨ Specify: Pipe Girth Weld Other Butt Weld Fillet Weld Other _____

If Pipe Girth Weld is selected, complete items 3.a. through h. above. If the values differ on either side of the girth weld, enter one value in 3.a. through h. and list the different value(s) in Part H - Narrative Description of the Incident.

Valve Mainline ⇨ Specify: Butterfly Check Gate Plug Ball Globe
 Other _____

3.i Mainline valve manufacturer: _____

3.j Year of manufacture: / / / / / / /

- Relief Valve
- Auxiliary or Other Valve

- Compressor
- Meter
- Scraper/Pig Trap
- Separator/Separator Filter
- Strainer/Filter
- Dehydrator/Drier/Treater
- Regulator/Control Valve
- Drip/Drip Collection Device
- Pulsation Bottle
- Cooler
- Repair Sleeve or Clamp
- Hot Tap Equipment
- Stopple Fitting
- Flange
- Relief Line
- Auxiliary Piping (e.g. drain lines)
- Tubing
- Instrumentation
- Underground Gas Storage or Cavern
- Pressure Vessel
- Other _____

4. Year item involved in Incident was installed: / / / / / / /

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

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

6. Type of Incident involved: *(select only one)*

- Mechanical Puncture ⇨ Approx. size: /_/_/_/_/_/_/_/ in. (axial) by /_/_/_/_/_/_/_/ in. (circumferential)
- Leak ⇨ Select Type: Pinhole Crack Connection Failure Seal or Packing Other
- Rupture ⇨ Select Orientation: Circumferential Longitudinal Other _____
Approx. size: /_/_/_/_/_/_/_/ in. (widest opening) by /_/_/_/_/_/_/_/ in. (length circumferentially or axially)
- Other ⇨ *Describe: _____

PART D – ADDITIONAL CONSEQUENCE INFORMATION

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

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

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

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

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

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

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

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

7. Estimated Property Damage:

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

Cost of Gas Released

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

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

No

Yes ➔

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

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

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

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

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

SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume or pack calculations)

Static Shut-in Test or Other Pressure or Leak Test

Controller

Air Patrol

Notification from Public

Notification from Third Party that caused the Incident

Local Operating Personnel, including contractors

Ground Patrol by Operator or its contractor

Notification from Emergency Responder

Other _____

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

Operator employee Contractor working for the Operator

8. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Incident? (select only one)

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

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

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

Yes, specify investigation result(s): (select all that apply)

Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue

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

Investigation identified no control room issues

Investigation identified no controller issues

Investigation identified incorrect controller action or controller error

Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response

Investigation identified incorrect procedures

Investigation identified incorrect control room equipment operation

Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response

Investigation identified areas other than those above ➔ Describe: _____

PART F – DRUG & ALCOHOL TESTING INFORMATION

1. As a result of this Incident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?

No

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

*1.b Specify how many failed: / / /

2. As a result of this Incident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?

No

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

*2.b Specify how many failed: / / /

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

External Corrosion

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

Internal Corrosion

6. Results of visual examination:
 - Localized Pitting General Corrosion Not cut open
 - Other _____
7. Cause of corrosion: *(select all that apply)*
 - Corrosive Commodity Water drop-out/Acid Microbiological Erosion
 - Other _____
8. The cause(s) of corrosion selected in Question 7 is based on the following: *(select all that apply)*
 - Field examination Determined by metallurgical analysis
 - Other _____
9. Location of corrosion: *(select all that apply)*
 - Low point in pipe Elbow Drop-out
 - Other _____
10. Was the gas/fluid treated with corrosion inhibitors or biocides? Yes No
11. Was the interior coated or lined with protective coating? Yes No
12. Were cleaning/dewatering pigs (or other operations) routinely utilized?
 - Not applicable - Not mainline pipe Yes No
13. Were corrosion coupons routinely utilized?
 - Not applicable - Not mainline pipe Yes No

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

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

Yes No

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

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

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

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

No

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

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

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

No

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

Yes No

17.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:

- Radiography / / / / /
- Guided Wave Ultrasonic / / / / /
- Handheld Ultrasonic Tool / / / / /
- Wet Magnetic Particle Test / / / / /
- Dry Magnetic Particle Test / / / / /
- Other _____ / / / / /

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

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

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

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

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

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"/> Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation | 1. Vehicle/Equipment operated by: <i>(select only one)</i> <input type="radio"/> Operator <input type="radio"/> Operator's Contractor <input type="radio"/> Third Party | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring | 2. Select one or more of the following IF an extreme weather event was a factor: <input type="radio"/> Hurricane <input type="radio"/> Tropical Storm <input type="radio"/> Tornado <input type="radio"/> Heavy Rains/Flood <input type="radio"/> Other _____ | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Electrical Arcing from Other Equipment or Facility | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Previous Mechanical Damage NOT Related to Excavation | <p>Complete Questions 3-7 ONLY IF the "Item Involved in Incident" (from PART C, Question 3) is Pipe or Weld.</p> <p>3. Has one or more internal inspection tool collected data at the point of the Incident? <input type="radio"/> Yes <input type="radio"/> No</p> <p>3.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:</p> <table style="width: 100%; border: none;"> <tr><td><input type="radio"/> Magnetic Flux Leakage</td><td> / / / / /</td></tr> <tr><td><input type="radio"/> Ultrasonic</td><td> / / / / /</td></tr> <tr><td><input type="radio"/> Geometry</td><td> / / / / /</td></tr> <tr><td><input type="radio"/> Caliper</td><td> / / / / /</td></tr> <tr><td><input type="radio"/> Crack</td><td> / / / / /</td></tr> <tr><td><input type="radio"/> Hard Spot</td><td> / / / / /</td></tr> <tr><td><input type="radio"/> Combination Tool</td><td> / / / / /</td></tr> <tr><td><input type="radio"/> Transverse Field/Triaxial</td><td> / / / / /</td></tr> <tr><td><input type="radio"/> Other</td><td> / / / / /</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: / / / / / 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 ⇒ Most recent year conducted: / / / / /</p> <p><input type="radio"/> Yes, but the point of the Incident was not identified as a dig site ⇒ Most recent year conducted: / / / / /</p> <p><input type="radio"/> No</p> <p><i>(This section continued on next page with Question 7.)</i></p> <p>7. Has one or more non-destructive examination been conducted at the point of the Incident</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>since January 1, 2002? <input type="radio"/> Yes <input type="radio"/> No</p> <p>7.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:</p> <p><input type="radio"/> Radiography <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"/> Intentional Damage | <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"/> Other Outside Force Damage | <p>9. Describe: _____</p> |

G5 - Material Failure of Pipe or Weld

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

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

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

- Field Examination Determined by Metallurgical Analysis Other Analysis _____
 Sub-cause is Tentative or Suspected; Still Under Investigation *(Supplemental Report required)*

Construction-, Installation-, or Fabrication-related

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

Environmental Cracking-related

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

- Fatigue- or Vibration-related:
 Mechanically-induced prior to installation (such as during transport of pipe)
 Mechanical Vibration
 Pressure-related
 Thermal
 Other _____
 Mechanical Stress
 Other _____

3. Specify: Stress Corrosion Cracking Sulfide Stress Cracking
 Hydrogen Stress Cracking Other _____

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

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

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

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

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

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

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

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

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

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

- Yes No

8.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:

- Radiography / / / / / /
 Guided Wave Ultrasonic / / / / / /
 Handheld Ultrasonic Tool / / / / / /
 Wet Magnetic Particle Test / / / / / /
 Dry Magnetic Particle Test / / / / / /
 Other _____ / / / / / /

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

| | |
|--|---|
| <input type="checkbox"/> Malfunction of Control/Relief Equipment | 1. Specify: <i>(select all that apply)</i> <input type="radio"/> Control Valve <input type="radio"/> Instrumentation <input type="radio"/> SCADA <input type="radio"/> Communications <input type="radio"/> Block Valve <input type="radio"/> Check Valve <input type="radio"/> Relief Valve <input type="radio"/> Power Failure <input type="radio"/> Stopple/Control Fitting <input type="radio"/> Pressure Regulator <input type="radio"/> ESD System Failure <input type="radio"/> Other _____ |
| <input type="checkbox"/> Compressor or Compressor-related Equipment | 2. Specify: <input type="radio"/> Seal/Packing Failure <input type="radio"/> Body Failure <input type="radio"/> Crack in Body <input type="radio"/> Appurtenance Failure <input type="radio"/> Pressure Vessel Failure <input type="radio"/> Other _____ |
| <input type="checkbox"/> Threaded Connection/Coupling Failure | 3. Specify: <input type="radio"/> Pipe Nipple <input type="radio"/> Valve Threads <input type="radio"/> Mechanical Coupling <input type="radio"/> Threaded Pipe Collar <input type="radio"/> Threaded Fitting <input type="radio"/> Other _____ |
| <input type="checkbox"/> Non-threaded Connection Failure | 4. Specify: <input type="radio"/> O-Ring <input type="radio"/> Gasket <input type="radio"/> Seal (NOT compressor seal) or Packing <input type="radio"/> Other _____ |
| <input type="checkbox"/> Defective or Loose Tubing or Fitting | |
| <input type="checkbox"/> Failure of Equipment Body (except Compressor), Vessel Plate, or other Material | |
| <input type="checkbox"/> Other Equipment Failure | 5. Describe: _____ _____ |

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

6. Additional factors that contributed to the equipment failure: *(select all that apply)*
- Excessive vibration
 - Overpressurization
 - No support or loss of support
 - Manufacturing defect
 - Loss of electricity
 - Improper installation
 - 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"/> Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage | |
| <input type="checkbox"/> Underground Gas Storage, Pressure Vessel, or Cavern Allowed or Caused to Overpressure | 1. Specify: <input type="radio"/> Valve Misalignment <input type="radio"/> Incorrect Reference Data/Calculation <input type="radio"/> Miscommunication <input type="radio"/> Inadequate Monitoring <input type="radio"/> Other _____ |
| <input type="checkbox"/> Valve Left or Placed in Wrong Position, but NOT Resulting in an Overpressure | |
| <input type="checkbox"/> Pipeline or Equipment Overpressured | |
| <input type="checkbox"/> Equipment Not Installed Properly | |
| <input type="checkbox"/> Wrong Equipment Specified or Installed | |
| <input type="checkbox"/> Other Incorrect Operation | 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"/> Miscellaneous | 1. Describe: _____ _____ |
| <input type="checkbox"/> Unknown | 2. Specify: <input type="radio"/> Investigation complete, cause of Incident unknown <input type="radio"/> Still under investigation, cause of Incident to be determined* (*Supplemental Report required) |

GENERAL INSTRUCTIONS

Each operator of a gas transmission or gathering pipeline system 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 detection of the incident. Requirements for submitting reports are in §191.7 and §191.15.

The intentional and controlled release of gas for the purpose of maintenance or other routine operating activities is not to be reported. Reports are required if the loss of gas unintentionally released is 3 million cubic feet or more.

Special considerations apply when a pipeline failure or release occurs involving secondary ignition. Secondary ignition is a fire where the origin of the fire is unrelated to the gas systems subject to Parts 191 or 192, such as electrical fires, arson, etc., and includes events where fire or explosion not originating from a pipeline system failure or release was the primary *cause* of the pipeline system failure or release, such as a refinery fire that subsequently resulted in – but was not caused by – a gas transmission or gas gathering pipeline system failure or release. An incident caused by secondary ignition is not to be reported unless a release of gas escaping from facilities subject to regulation under Parts 191 or 192 results in one or more of the consequences as described in §191.3 under "Incident" (1). The determination of consequences from a pipeline incident caused by secondary ignition, though, is an area of possible confusion when reporting incidents. This situation is particularly susceptible to confusion as compared to other Natural or Other Outside Force Damage because it is extremely difficult in most cases to establish whether and which consequences were attributable to the initiating fire (that is, the “secondary ignition” source itself) or to a subsequent fire due to a resulting pipeline system failure or release. PHMSA is providing the following guidance for operators to use when secondary ignition is involved (sometimes referred to as “Fire First” incidents):

- A pipeline incident attributed to secondary ignition is to be reported to PHMSA if any fatalities or injuries are involved unless it can be established with reasonable certainty that all of the casualties either preceded the pipeline system failure or release, or would have occurred whether or not the pipeline system failure or release occurred.
- A pipeline incident attributed to secondary ignition is NOT to be reported to PHMSA if the only reportable criterion is unintentional loss of gas of 3 million cubic feet or more as described in §191.3 under "Incident" (1)(iii).
- A pipeline incident attributed to secondary ignition is NOT to be reported to PHMSA unless the damage to facilities subject to Parts 191 or 192 equals or exceeds \$50,000.

These considerations apply to several pipeline incident cause categories as indicated in pertinent sections of these instructions.

Form PHMSA F 7100.2 and these instructions can be found on <http://phmsa.dot.gov/pipeline/library/forms>. The applicable documents are listed in the section titled Accident/Incident/Annual Reporting Forms.

ONLINE REPORTING REQUIREMENTS

Incident Reports must be submitted online through the PHMSA Portal at <https://portal.phmsa.dot.gov/portal>, unless an alternate method is approved (see Alternate Reporting Methods below). You will not be able to submit reports until you have met all of the Portal registration requirements – see http://opsweb.phmsa.dot.gov/portal_message/PHMSA_Portal_Registration.pdf. Completing these registration requirements could take several weeks. Plan ahead and register well in advance of the report due date.

Use the following procedure for online reporting:

1. Go to the PHMSA Portal at <https://portal.phmsa.dot.gov/portal>
2. Enter PHMSA Portal Username and Password ; press *enter*
3. Select OPID; press “*continue*” button.
4. On the left side menu under “Incident/Accident (2010 to present)” select “**ODES 2.0**”
5. Under “**Create Reports**” on the left side of the screen, select “Gas Transmission and Gathering” and proceed with entering your data.
6. Click “**Submit**” when finished with your data entry to have your report uploaded to PHMSA’s database as an official submission of an Incident Report; or click “**Save**” which doesn’t submit the report to PHMSA but stores it in a draft status to allow you to come back to complete your data entry and report submission at a later time. *Note: The “Save” feature will allow you to start a report and save a draft of it which you can print out and/or save as a PDF to email to colleagues in order to gather additional information and then come back to accurately complete your data entry before submitting it to PHMSA.*
7. Once you click “**Submit**”, the system will check if all applicable portions of the report have been completed. If portions are incomplete, a listing of these portions will appear above the row of Parts. If all applicable portions have been completed, the system will show your Saved Incident/Accident Reports in the top portion of the screen and your Submitted Incident/Accident Reports in the bottom portion of the screen. *Note: To confirm that your report was successfully submitted to PHMSA, look for it in the bottom portion of the screen where you can also view a PDF of what you submitted.*

Supplemental Report Filing – Follow Steps 1 through 4 above, and then double-click a submitted report from the Submitted Incident/Accident Reports list. The report will default to a “Read Only” mode that is pre-populated with the data you submitted previously. To create a supplemental report, click on “Create Supplemental” found in the upper right corner of the screen. At this point, you can amend your data and make an official submission of the report to PHMSA as either a Supplemental Report or as a Supplemental Report *plus* Final Report (see

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“Specific Instructions, PART A, Report Type”), or you can use the “**Save**” feature to create a draft of your Supplemental Report to be submitted at some future date.

Alternate Reporting Methods

Operators for whom electronic reporting imposes an undue burden and hardship may submit a written request for an alternate reporting method. Operators must follow the requirements in §191.7(d) to request an alternate reporting method and must comply with any conditions imposed as part of PHMSA’s approval of an alternate reporting method.

RETRACTING A 30-DAY WRITTEN REPORT

An operator who reports an incident in accordance with §191.15 (oftentimes referred to as a 30-day written report) and upon subsequent investigation determines that the event did not meet the criteria in §191.3 may request that the report be retracted. Requests to retract a 30-day written report are to be emailed to InformationResourcesManager@dot.gov. Requests are to include the following information:

- a. The Report ID (the unique 8-digit identifier assigned by PHMSA)
- b. Operator name
- c. PHMSA-issued OPID number
- d. The number assigned by the National Response Center (NRC) when an immediate notice was made in accordance with §191.5. If Supplemental Reports were made to the NRC for the event, list all NRC report numbers associated with the event.
- e. Date of the event
- f. Location of the event
- g. A brief statement as to why the report should be retracted.

Note: PHMSA no longer requests that operators rescind erroneously reported “Immediate Notices” filed with the NRC in accordance with §191.5 (oftentimes referred to as “Telephonic Reports”).

SPECIAL INSTRUCTIONS

Certain data fields must be completed before an Original Report will be accepted. Your Original Report will not be able to be submitted online until the required information has been provided, although your partially completed form can be saved online so that you can return at a later time to provide the missing information.

1. An entry should be made in each applicable space or check box, unless otherwise directed by the section instructions.
2. If the data is unavailable, enter “Unknown” for text fields and leave numeric fields and fields using check boxes or “radio” buttons blank.
3. Estimate data only if necessary. 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.
4. For unknown or estimated data entries, the operator should file a Supplemental Report when additional or more accurate information becomes available.
5. If the question is not applicable, enter “N/A” for text fields and leave numeric fields and fields using check boxes or “radio” buttons blank. Do not enter zero unless this is the actual value being submitted for the data in question.
6. If **OTHER** is checked for any answer to a question, include an explanation or description on the line provided, making it clear why “Other” was the necessary selection.
7. Pay close attention to each question for the phrase:
 - a. *(select all that apply)*
 - b. *(select only one)*

If the phrase is not provided for a given question, then “select only one” should apply. “Select only one” means that you should select the single, primary, or most applicable answer. **DO NOT SELECT MORE ANSWERS THAN REQUESTED.** “Select all that apply” requires that all applicable answers (one or more than one) be selected.

8. **Date format** = mm/dd/yy or for year = /yyyy/
9. **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/

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e. (2200) = 10:00 p.m. = /2/2/0/0/

Local time always refers to time at the site of the incident. Note that time zones at the incident site may be different than the time zone for the person discovering or reporting the event. For example, if a release occurs at an gas transmission facility in Denver, Colorado at 2:00 pm MST, but an individual located in Houston is filing the report after having been notified at 3:00 pm CST, the time of the incident is to be reported as 1400 hours based on the time in Denver, which is the physical site of the incident.

PART A – KEY REPORT INFORMATION

Report Type: (select all that apply)

Select the appropriate report box or boxes to indicate the type of report being filed. Depending on the descriptions below, the following combinations of boxes – and only one of these combinations - may be selected:

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

Original Report

Select if this is the **FIRST** report filed for this incident and **you expect that additional or updated information will be provided later.**

Original Report *plus* **Final Report**

Select **both** Original Report and Final Report if **ALL** of the information requested is known and can be provided at the time the initial report is filed, including final property damage costs and apparent failure cause information. If new, updated, and/or corrected information becomes available, you are still able to file a Supplemental Report.

Supplemental Report

Select only if you have already filed an Original Report **AND** you are now providing new, updated, and/or corrected information. Multiple Supplemental Reports are to be submitted, as necessary, in order to provide new, updated, and/or corrected information **when it becomes available** and, per §191.15(c), each Supplemental Report containing new, updated, and/or corrected information is to be filed as soon as practicable. Submission of new, updated, and/or corrected information is **NOT** to be delayed in order to accumulate “enough” to “warrant” a Supplemental Report, or to complete a Final Report. **Supplemental Reports must be filed as soon as practicable following the Operator’s awareness of new, updated, and/or corrected information.** Failure to comply with these requirements can result in enforcement actions,

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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.

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.

Supplemental Report *plus* **Final Report**

If an Original Report has already been filed AND new, updated, and/or corrected information is now being submitted via a Supplemental Report AND the operator is reasonably certain that no further information will be forthcoming, then Final Report is to also be selected along with Supplemental Report. If you subsequently find that new, updated, and/or corrected information needs to be provided, submit another Supplemental Report.

In PART A, answer Questions 1 thru 19 by providing the requested information or by making the appropriate selection.

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

For online entries, the OPID will automatically populate based on the selection you made when entering the Portal. If you have log-in credentials for multiple OPID, be sure the report is being created for the appropriate OPID. Contact PHMSA’s Information Resources Manager at 202-366-8075 if you need assistance with an OPID. Business hours are 8:30 AM to 5:00 PM Eastern Time.

2. Name of Operator

This is the company name associated with the OPID. For online entries, the name will automatically populate based on the OPID entered in A1. If the name that appears is not correct, you need to submit an Operator Name Change (Type A) Notification.

3. Address of Operator

For online entries, the headquarters address will automatically populate based on the OPID entered in A1. If the address that appears is not correct, you need to change it in the online Contacts module.

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

Enter the earliest local date/time an incident reporting criteria was met. In some cases, this date/time must be estimated based on information gathered during the investigation.

See “Special Instructions”, numbers 8 and 9 for examples of **Date format** and **Time format** expressed as a 24-hour clock.

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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 included on the data entry form so that operators do not have to enter the negative sign.**

If you cannot locate the incident with a GPS or some other means, there are online tools that may assist you at <http://viewer.nationalmap.gov/viewer/>. Any questions regarding the required format, conversion, or how to use the tools noted above can be directed to Amy Nelson (202-493-0591 or 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 assigned to that Immediate Notice (sometimes referred to as the “Telephonic Report”) is to be entered in Question 6. When there is more than one NRC report for the incident, enter the first report in this field and remaining NRC report numbers in Part H – Narrative. If a NRC report was not made, select the option that best describes why: NRC Notification Not Required, NRC Notification Required But Not Made, Do Not Know NRC Report Number.

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

Enter the time and date of the initial Immediate Notice of the incident to the NRC. The time is to be shown by 24-hour clock notation in the time zone where the incident occurred. All NRC reports are time stamped for the eastern time zone. Be sure to convert to local time if the incident did not occur in the eastern time zone. (See “Special Instructions”, numbers 9 and 10.)

8. Incident resulted from

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

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9. Gas released

Select the type of gas released. An example of **Synthetic Gas** is manufactured gas based on naphtha. **Landfill Gas** includes biogas.

Important Note for Questions 10, 11, and 12: Volumes consumed by fire and/or explosion are to be included in the estimated volumes reported.

10. Estimated volume of gas released unintentionally

Estimate the amount of gas that was released (in thousands of standard cubic feet, MCF) from the beginning of the incident until such time as gas is no longer being released from the pipeline system or until intentional and controlled blowdown has commenced. Estimates are to 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 standard cubic feet, MCF) 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

Estimate the amount of accompanying liquid that was spilled to the ground (or other containment) as a liquid (in barrels) from the beginning of the incident until such time as the liquid is no longer being released from the system. Barrel means a unit of measurement equal to 42 U.S. standard gallons. If less than 1 barrel, report to 1 decimal place using the conversion table below. De minimus volumes, including but not limited to those which sometimes result in some form of ignition, are to be reported as 0.1 barrels.

| If estimated volume is | Report | If estimated volume is | Report |
|------------------------|--------------------|------------------------|--------------------|
| <5 gallons | 0.1 barrels | 24-27 gallons | 0.6 barrels |
| 5-10 gallons | 0.2 barrels | 28-31 gallons | 0.7 barrels |
| 11-14 gallons | 0.3 barrels | 32-35 gallons | 0.8 barrels |
| 15-18 gallons | 0.4 barrels | 36-39 gallons | 0.9 barrels |
| 19-23 gallons | 0.5 barrels | 40-42 gallons | 1.0 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. (Note: This aligns with the

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Department of Transportation's general guidelines for all jurisdictional transportation modes for reporting deaths and injuries.)

Contractor employees working for the operator are individuals hired to work for or on behalf of the operator of the pipeline. These individuals are not to be reported as “Operator employees”.

Non-Operator emergency responders are individuals responding to render professional aid at the incident scene, including on-duty and volunteer fire fighters, rescue workers, EMTs, police officers, etc. “Good Samaritans” that stop to assist are to 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 are to be reported as “General public”.

14. Were there injuries requiring inpatient hospitalization?

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

See Question 13 for additional definitions that apply.

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

Report any shutdowns that occur as a result of the incident, including but not limited to those required for damage assessment, temporary repair, permanent repair, and clean-up.

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

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

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

15.b. Local time pipeline/facility restarted

The time is to be shown by 24-hour clock notation, and is to reflect the time in the time zone where the incident was physically located. (See “Special Instructions”, numbers 9 and 10.) Enter the time and date the pipeline was isolated or equipment stopped in 15.a. The affected facilities may still contain gas at this time. Enter the time and date of restart in 15.b. The intent with this data is to capture the total time that the pipeline or facility is shutdown due to the incident. If the pipeline or facility has not been restarted, select “Still shut down” for Question 15.b and then include the restart time and date in a future Supplemental Report.

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16. Did the gas ignite?

Ignite means the released gas caught fire.

17. Did the gas explode?

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

18. Number of general public evacuated

The number of people evacuated is to be estimated based on operator knowledge, or police, fire department, or other emergency responder reports. If there was no evacuation involving the general public, report zero (0). If an estimate is not possible for some reason, leave the field blank but include an explanation of why it was not possible to provide a number in PART H – Narrative Description of the Incident.

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

In 19a, enter the date/time the operator became aware of the failure. The earliest date/time that an incident reporting criteria was met is reported in item A4. In some cases, the operator may become aware of a failure before an incident reporting criteria is met. In other cases, one or more incident reporting criteria may be met before the operator becomes aware of the failure. In 19b, enter the date/time operator responders, company or contract, arrived on site. Chronologically, 19b must be concurrent with or later than 19a. These times are to be shown by 24-hour clock notation and reported in the time zone where the incident occurred. (See “Special Instructions”, numbers 8 and 9.) PHMSA will use this data to calculate incident response times.

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.

If Onshore

2. – 5. Incident Location

Provide the state, zip code, city, and county/parish in which the incident occurred. If the incident did not occur within a municipality, select Not Within Municipality in the City field. If the incident did not occur within county/parish, select Not Within County/Parish.

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", or "Wooster Storage Facility".

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)

This refers to the location on the pipeline system at which gas was released, resulting in the incident. It does not refer to adjacent locations in which released gas may have accumulated or ignited.

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 is to be appropriately reported in PART 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, compressor stations, and gas storage facilities.

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.

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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 is to 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 may 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, ignoring seasonal, weather-related, and other factors which may affect the water depth from time to time.

If Offshore

13. Approximate water depth (ft.) at the point of the Incident

This is to 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 the Incident

Area and Tract/Block numbers are to 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 precisely “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 is to 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 or that part of a gas pipeline facility that is used to transport gas and is subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act (15 U.S.C. 717 et seq.).

Intrastate gas pipeline facility means a gas pipeline facility or that part of a gas pipeline facility that is used to transport gas within a state and is not subject to the jurisdiction of 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, but does not include tubing. Examples of auxiliary piping include discharge and drain lines, etc.

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If the incident occurred on an item not provided in this section, select “Other” and specify the item that failed in the space provided.

6. Type of Incident 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., using a 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 in a low flow release of low volume, although large volume leaks can and do occur on occasion.

Rupture means the pipeline facility has burst, split, or broken and the operation of the pipeline facility is immediately impaired. Pipeline ruptures often result in a higher flow release of larger volume. 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 is to 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 is to 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 is to 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 §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 flying debris 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 Property Damage

All relevant costs available at the time of submission must be included on the initial written Incident Report as well as being updated as needed on 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, facility repair and replacement, and environmental cleanup and damage. Do NOT include cost of gas lost. Additionally, do NOT include costs incurred for facility repair, replacement, or changes that are NOT related to the incident and which are typically 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 are to 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 (within 30 days, per §191.15). The best available estimate of these costs is to 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 are to be filed as new cost information becomes available. If Supplemental Reports are not submitted for other reasons, a Supplemental Report is to be filed for the purpose of updating or 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.

Operator's property damage estimates generally include physical damage to the property of the operator or owner company such as the estimated installed or replacement value of the damaged pipe, coating, component, materials, or equipment due to the incident, excluding the

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cost of any gas lost. Also to be excluded are 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 or other facilities 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. are not to be included.

Other costs are to include any and all costs which are not included above. Cost of any gas lost is NOT to be reported here, but is to be reported under **Cost of Gas Released**. Operators are to NOT use this category to report any costs which belong in cost categories separately listed above.

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

Cost of Gas Released

Cost of gas released unintentionally is to be based on the volume reported in PART A, Question 10.

Cost of gas released during intentional and controlled blowdown is to be based on the volume reported in PART A, Question 11.

PART E – ADDITIONAL OPERATING INFORMATION

1. Estimated Pressure

Enter the operating pressure, in psig, at the location and time of the incident.

2. Maximum Allowable Operating Pressure (MAOP)

Enter the MAOP, in psig, at the point and time of the incident.

2a. MAOP Established By

Select the response serving as the limiting factor for establishing MAOP at the incident site. When reporting an incident on transmission pipeline system pursuant to a PHMSA special permit allowing operation up to 80% SMYS in Class 1 areas, select 192.619 (d). From 2006 through 2010, PHMSA issued fifteen of these special permits with conditions equivalent to pipeline installed under 192.619(d).

A short explanation of each option is:

| § 192.619 (paragraph) | Methodology Description |
|--------------------------|---|
| (a) | <i>Introduction: Except as specified in (c) and (d), use the lowest MAOP determined by (a)(1), (a)(2), (a)(3), (a)(4).</i> |
| (a)(1) | Design Pressure |
| (a)(2) | Post-Construction Pressure Test |
| (a)(3) | High Actual Operation Pressure (5 years preceding 1970) |
| (a)(4) | History of Pipe (primarily corrosion and actual operating pressure) |
| (c) | Allows the use of (a)(3) even if MAOP is higher than MAOPs determined by other methodologies in (a) |
| (d) | Alternative MAOP (§ 192.620) |
| Other | Use this category if you did not base your MAOP on any of the paragraphs within § 192.619 |

3. Pressure Description

The online reporting software will select the appropriate value.

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 is to 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

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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)), is not to 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 or the one that was eventually used for the final isolation of the release site for repair.

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 or the one that was eventually used for the final isolation of the release site for repair.

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

Identify the length in feet between the valves identified in Questions 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.

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.

Offshore Gathering means a gas gathering pipeline located offshore.

Storage Gathering means a transmission pipeline that transports gas within a storage field.

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 designed or used 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 PART H – Narrative Description of the Incident.

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?

Select 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.

Select No if SCADA-based information was not used to assist with identification of the incident.

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

Controller 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?

Select only one of the choices 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.

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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 §199.225 respectively. If the incident circumstances were such that tests were not required by these regulations, and if no tests were conducted, select No. If tests were administered, select Yes and report separately the number of operator employees and the number of contractors working for the operator who were tested and the number of each that failed such tests.

PART G – APPARENT CAUSE

PART G – Apparent Cause

Select the one, single sub-cause listed under sections G1 thru G8 that best describes the apparent cause of the Incident. These sub-causes are contained in the shaded column on the left under each main cause category. Answer the corresponding questions that accompany your selected sub-cause, and describe any secondary, contributing, or root causes of the Incident in PART H – Narrative Description of the Incident.

G1 – Corrosion Failure

Corrosion includes a release or failure caused by galvanic, atmospheric, stray current, microbiological, or other corrosive action. A corrosion release or failure is not limited to a hole in the pipe or other piece of equipment. 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 to be classified as Corrosion. (Note: If the bonnet, packing, or other gasket has deteriorated to failure, whether before or after the end of its expected life, but not due to corrosive action, it is to be classified under G6 - Equipment Failure.)

External Corrosion

4.a. Under cathodic protection means cathodic protection in accordance with §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.

4.b. Type of corrosion – Stress Corrosion Cracking (SCC) is no longer an option for the type of corrosion. SCC failures are to be reported under cause G5, with a sub-cause of Environmental Cracking-related.

Internal Corrosion

9. Location of corrosion

A **low point in pipe** includes portions of the pipe contour in which water might settle out. This includes, but is not limited to, the low point of vertical bends at a crossing of a foreign line or road/railroad, etc., an elbow, a drop out or low point drain.

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

Select Yes if corrosion inhibitors or biocides were included in the gas/fluid transported.

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

13. Were corrosion coupons routinely utilized?

For purposes of these Questions 12 and 13, “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 is not to be reported.

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

This refers to direct assessment as defined in §192.903. 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 §192.903 do NOT constitute a Direct Assessment for purposes of this question.

G2 – Natural Force Damage

Natural Force Damage includes a release or failure resulting from earth movement, earthquakes, landslides, subsidence, lightning, heavy rains/floods, washouts, flotation, mudslide, scouring, temperature, frost heave, frozen components, high winds, or similar natural causes.

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 natural force 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. (See also the discussion of “secondary ignition” under the *General Instructions*.)

Temperature includes weather-related temperature and thermal stress effects, either heat or cold, where temperature was the initiating 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 under G4 - Other Outside Force Damage.

Other Natural Force Damage. Select this sub-cause for types of Natural Force Damage not included otherwise, and describe in the space provided. If necessary, provide additional explanation in PART H – Narrative Description of the Incident.

Answer Questions 6 and 6.a if the incident occurred in conjunction with an extreme weather event such as a hurricane, tropical storm, or tornado. If an extreme weather event related to something other than a hurricane, tropical storm, or tornado was involved, indicate Other and describe the event in the space provided.

G3 – Excavation Damage

Excavation Damage includes a release or failure resulting directly from excavation damage by operator's personnel (oftentimes referred to as “first party” excavation damage) or by the operator’s contractor (oftentimes referred to as “second party” excavation damage) or by people or contractors not associated with the operator (oftentimes referred to as “third party” excavation damage). Also, this section includes a release or failure determined to have resulted from previous damage due to excavation activity. For damage from outside forces OTHER than excavation which results in a release, use G2 - Natural Force Damage or G4 - Other Outside Force, as appropriate. Also, for a strike, physical contact, or other damage to a pipeline or facility that apparently was NOT related to excavation and that results in a delayed or eventual release, report the incident under G4 as “Previous Mechanical Damage NOT related to Excavation.”

Excavation Damage by Operator (First Party) refers to incidents caused as a result of excavation by a direct employee of the operator.

Excavation Damage by Operator’s Contractor (Second Party) refers to incidents 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 refers to incidents 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 refers to incidents that were apparently caused by prior excavation activity and that then resulted in a delayed or eventual release. Indications of prior excavation activity might come from the condition of the pipe when it is examined, or from records of excavation at the site, or through metallurgical analysis or other inspection and/or testing methods. Dents and gouges in the 10:00-to-2:00 o’clock positions on the pipe, for instance, may indicate an earlier strike, as might marks from the bucket or tracks of an earth moving machine or similar pieces of equipment.

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 is not to be reported.

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

This refers to direct assessment as defined in §192.903. 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 §192.903 do not constitute a Direct Assessment for purposes of this question.

6. – 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

Other Outside Force Damage includes, but is not limited to, a release or failure resulting from non-excavation-related outside forces, such as nearby industrial, man-made, or other fire or explosion; damage by vehicles or other equipment; failures due to mechanical damage; and, intentional damage including vandalism and terrorism.

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. (See also the discussion of “secondary ignition” under the *General Instructions*.) Examples of such an incident would be an explosion or fire that originated at a neighboring facility or installation (chemical plant, tank farm, or other industrial facility) or structure, debris, or brush/trees that results in a release at the operator’s pipeline or facility. This includes forest, brush, or ground fires that are caused by human activity. If the fire, however, is known to have been started as a result of a lightning strike, the incident’s cause is to be classified under G2 - Natural Force Damage. Arson events directed at harming the pipeline or the operator are to be reported as G4 - Intentional Damage (see below). This sub-cause is NOT to be used if the release occurred first and then the gas released from the pipeline system or facility ignited.

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 from one of these three groups. Pipeline incidents resulting from vehicular traffic loading or other contact are to also be reported in this category. If the activity that caused the incident involved digging, drilling, boring, grading, cultivation or similar excavation activities, report under 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 are to be reported as “Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation” under this section G4 (see below) so long as those activities are not excavation activities. If those activities are excavation activities such

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as dredging or bank stabilization or renewal, the incident is to be reported under G3 - Excavation Damage.

Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation. This sub-cause includes incidents due to shrimping, purse seining, 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 inadvertent and due to a severe weather event (this type of incident is to be reported under “Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring” in this section G4); or, the incident was caused by excavation activity such as dredging of waterways or bodies of water (this type of incident is to be reported under G3 - Excavation Damage).

Electrical Arcing from Other Equipment or Facility such as a pole transformer or adjacent facility’s electrical equipment.

Previous Mechanical Damage NOT Related to Excavation. This sub-cause covers incidents where damage occurred at some time prior to the release that was apparently NOT related to excavation activities, and would include prior outside force damage of an unknown nature, prior natural force damage, prior damage from other outside forces, and any other previous mechanical damage other than that which was apparently related to prior excavation. Incidents resulting from previous damage sustained during construction, installation, or fabrication of the pipe or weld from which the release eventually occurred are to be reported under G5 - Material Failure of Pipe or Weld. (See this sub-cause for typical indications of previous construction, installation, or fabrication damage.) Incidents resulting from previous damage sustained as a result of excavation activities should be reported under G3 – Previous Damage due to Excavation Activity. (See this sub-cause for typical indications of prior excavation activity.)

Intentional Damage

Vandalism means willful or malicious destruction of the operator’s pipeline facility or equipment. This category would include arson, pranks, systematic damage inflicted to harass the operator, motor vehicle damage that was inflicted intentionally, and a variety of other intentional acts. (See also the discussion of “secondary ignition” under the *General Instructions*.)

Terrorism, per 28 CFR §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 of commodity or Theft of equipment 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 – Narrative Description of the Incident.

Other Outside Force Damage. Select this sub-cause for types of Other Outside Force Damage not included otherwise, and describe in the space provided. If necessary, provide additional explanation in PART H – Narrative Description of the Incident.

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**.” Indicate how the sub-cause was determined or if the sub-cause is still being investigated.

This section includes releases in or failures from defects or anomalies 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, or fabrication practices, and in-service stresses such as vibration, fatigue, and environmental cracking.

Construction-, Installation-, or Fabrication-related includes a release or failure caused by a dent, gouge, excessive stress, or some other defect or anomaly introduced during the process of constructing, installing, or fabricating pipe and pipe welds, including welding or other activities performed at the facility. Included are releases from or failures of wrinkle bends, field welds, and damage sustained in transportation to the construction or fabrication site. Not included are failures due to seam defects, which are to be reported as Original Manufacturing-related (see below).

Original Manufacturing-related (NOT girth welds or other welds formed in the field) includes a release or failure caused by a defect or anomaly introduced during the process of manufacturing pipe, including seam defects and defects in the pipe body. 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.

Environmental Cracking-related includes failures by Stress Corrosion Cracking, Sulfide Stress Cracking, Hydrogen Stress Cracking or other environmental cracking mechanism.

If **Construction-, Installation-, or Fabrication-related**, or **Original Manufacturing-related** is selected, then select any contributing factors. 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**” (“**Pipe Body**” or “**Pipe Seam**”) or “**Weld**”.

Equipment Failure includes a release or failure resulting from: malfunction of control/relief equipment including valves, regulators, or other instrumentation; failures of compressors, or compressor-related equipment; failures of various types of connectors, connections, and

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appurtenances; failures of the body of equipment, vessel plate, or other material (including those caused by construction-, installation-, or fabrication-related and original manufacturing-related defects or anomalies); and, all other equipment-related failures.

Malfunction of Control/Relief Equipment. Examples of this type of incident cause include: overpressurization resulting from malfunction of a control or alarm device; malfunction of a relief valve; 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 is to be reported under G7 - Incorrect Operation.

ESD System Failure means failure of an emergency shutdown system.

Other Equipment Failure. Select this sub-cause for types of Equipment Failure not included otherwise, and describe in the space provided. If necessary, provide additional explanation in PART H – Narrative Description of the Incident.

G7 – Incorrect Operation

Incorrect Operation includes a release or failure resulting from operating, maintenance, repair, or other errors by facility personnel, including, but not limited to improper valve selection or operation, inadvertent overpressurization, or improper selection or installation of equipment.

Other Incorrect Operation. Select this sub-cause for types of Incorrect Operation not included otherwise, and describe in the space provided. If necessary, provide additional explanation in PART H – Narrative Description of the Incident.

G8 – Other Incident Cause

This section is provided for incidents whose cause is currently unknown, or where investigation into the cause has been exhausted and the final judgment as to the cause remains unknown, or where a cause has been determined which does not fit into any of the main cause categories listed in sections G1 thru G7.

If the incident cause is known but doesn't fit into any category in sections G1 thru G7, select **Miscellaneous** and enter a description of the incident cause, continuing with a more thorough explanation in PART H - Narrative Description of the Incident.

If the incident cause is unknown at the time of filing this report, select **Unknown** in this section and specify one reason from the accompanying two choices. Once the operator's investigation into the incident cause is completed, the operator is to file a Supplemental Report as soon as practicable either reporting the apparent cause or stating definitively that the cause remains Unknown, along with any other new, updated, and/or corrected information pertaining to the incident. This Supplemental Report is to include all new, updated, and/or corrected information pertaining to *all* portions of the report form known at this time, and not only that information related to the apparent cause.

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Important Note: Whether the investigation is completed or not, or if the cause continues to be unknown, Supplemental Reports are to be filed reflecting new, updated, and/or corrected information *as and when this information becomes available*. In those cases in which investigations are ongoing for an extended period of time, operators are to file a Supplemental Report within one year of their last report for the incident even in those instances where no new, updated, and/or corrected information has been obtained, with an explanation that the cause remains under investigation in PART H – Narrative Description of Incident. Additionally, final determination of the apparent cause and/or closure of the investigation does NOT preclude the need for the operator’s filing of additional Supplemental Reports as and when new, updated, and/or corrected information becomes available.

PART H – NARRATIVE DESCRIPTION OF THE INCIDENT

Concisely describe the incident, including the facts, circumstances, and conditions that may have contributed directly or indirectly to causing the incident. Include secondary, contributing, or root 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 (in PDF or JPG format only) containing sketches, drawings, or additional data.

If you selected Miscellaneous in section G8, the narrative is to describe the incident in detail, including all known or suspected causes and possible contributing factors.

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 or persons most knowledgeable). Enter the Preparer’s e-mail address if the Preparer has one, and the phone and fax numbers used by the Preparer.

The Authorized Signer 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 Authorized Signer.