













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

No

Yes ➔

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

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

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

7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?

No

Yes ➔

7.a Was it operating at the time of the Accident?  Yes  No

7.b Was it fully functional at the time of the Accident?  Yes  No

7.c Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?  Yes  No

7.d Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?  Yes  No

8. How was the Accident initially identified for the Operator? (select only one)

CPM leak detection system or SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations)

Static Shut-in Test or Other Pressure or Leak Test

Controller

Local Operating Personnel, including contractors

Air Patrol

Ground Patrol by Operator or its contractor

Notification from Public

Notification from Emergency Responder

Notification from Third Party that caused the Accident

Other \_\_\_\_\_

8.a If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 8, specify the following: (select only one)

Operator employee  Contractor working for the Operator

9. 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 Accident? (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 Accident

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: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

<b>PART F – DRUG &amp; ALCOHOL TESTING INFORMATION</b>	
<p>1. As a result of this Accident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug &amp; Alcohol Testing regulations?</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Yes ⇨ *1.a Specify how many were tested: <u>  /  /  /  /  </u></p> <p style="padding-left: 40px;">*1.b Specify how many failed: <u>  /  /  /  /  </u></p> <p>2. As a result of this Accident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug &amp; Alcohol Testing regulations?</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Yes ⇨ *2.a Specify how many were tested: <u>  /  /  /  /  </u></p> <p style="padding-left: 40px;">*2.b Specify how many failed: <u>  /  /  /  /  </u></p>	

<b>PART G – APPARENT CAUSE</b>	<b>Select only one box from PART G in the shaded column on the left representing the APPARENT Cause of the Accident, and answer the questions on the right. Describe secondary, contributing, or root causes of the Accident in the narrative (PART H).</b>
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<b>G1 - Corrosion Failure</b> – *only one sub-cause can be picked from shaded left-hand column	
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<input type="checkbox"/> <b>External Corrosion</b>	<p>1. Results of visual examination:</p> <p><input type="radio"/> Localized Pitting    <input type="radio"/> General Corrosion</p> <p><input type="radio"/> Other _____</p> <p>2. Type of corrosion: <i>(select all that apply)</i></p> <p><input type="radio"/> Galvanic    <input type="radio"/> Atmospheric    <input type="radio"/> Stray Current    <input type="radio"/> Microbiological    <input type="radio"/> Selective Seam</p> <p><input type="radio"/> Other _____</p> <p>3. The type(s) of corrosion selected in Question 2 is based on the following: <i>(select all that apply)</i></p> <p><input type="radio"/> Field examination    <input type="radio"/> Determined by metallurgical analysis</p> <p><input type="radio"/> Other _____</p> <p>4. Was the failed item buried under the ground?</p> <p><input type="radio"/> Yes ⇨ 4.a Was failed item considered to be under cathodic protection at the time of the Accident?</p> <p style="padding-left: 40px;"><input type="radio"/> Yes ⇨ Year protection started: <u>  /  /  /  /  /  </u></p> <p style="padding-left: 40px;"><input type="radio"/> No</p> <p style="padding-left: 40px;">4.b Was shielding, tenting, or disbonding of coating evident at the point of the Accident?</p> <p style="padding-left: 80px;"><input type="radio"/> Yes    <input type="radio"/> No</p> <p style="padding-left: 40px;">4.c Has one or more Cathodic Protection Survey been conducted at the point of the Accident?</p> <p style="padding-left: 40px;"><input type="radio"/> Yes, CP Annual Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u></p> <p style="padding-left: 40px;"><input type="radio"/> Yes, Close Interval Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u></p> <p style="padding-left: 40px;"><input type="radio"/> Yes, Other CP Survey ⇨ Most recent year conducted: <u>  /  /  /  /  /  </u></p> <p style="padding-left: 40px;"><input type="radio"/> No</p> <p><input type="radio"/> No ⇨ 4.d Was the failed item externally coated or painted?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p>5. Was there observable damage to the coating or paint in the vicinity of the corrosion?</p> <p><input type="radio"/> Yes    <input type="radio"/> No</p>
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<input type="checkbox"/> <b>Internal Corrosion</b>	<p>6. Results of visual examination:  <input type="radio"/> Localized Pitting    <input type="radio"/> General Corrosion    <input type="radio"/> Not cut open  <input type="radio"/> Other _____</p> <p>7. Cause of corrosion: <i>(select all that apply)</i>  <input type="radio"/> Corrosive Commodity    <input type="radio"/> Water drop-out/Acid    <input type="radio"/> Microbiological    <input type="radio"/> Erosion  <input type="radio"/> Other _____</p> <p>8. The cause(s) of corrosion selected in Question 7 is based on the following: <i>(select all that apply)</i>  <input type="radio"/> Field examination    <input type="radio"/> Determined by metallurgical analysis  <input type="radio"/> Other _____</p> <p>9. Location of corrosion: <i>(select all that apply)</i>  <input type="radio"/> Low point in pipe    <input type="radio"/> Elbow    <input type="radio"/> Other _____</p> <p>10. Was the commodity treated with corrosion inhibitors or biocides?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p>11. Was the interior coated or lined with protective coating?    <input type="radio"/> Yes    <input type="radio"/> No</p> <p>12. Were cleaning/dewatering pigs (or other operations) routinely utilized?  <input type="radio"/> Not applicable - Not mainline pipe    <input type="radio"/> Yes    <input type="radio"/> No</p> <p>13. Were corrosion coupons routinely utilized?  <input type="radio"/> Not applicable - Not mainline pipe    <input type="radio"/> Yes    <input type="radio"/> No</p>
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**Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Tank/Vessel.**

14. List the year of the most recent inspections:
- 14.a API Std 653 Out-of-Service Inspection        /    /    /    /         No Out-of-Service Inspection completed
- 14.b API Std 653 In-Service Inspection        /    /    /    /         No In-Service Inspection completed

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

15. Has one or more internal inspection tool collected data at the point of the Accident?  
 Yes     No
- 15.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 \_\_\_\_\_        /    /    /    /
16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?  
 Yes    ⇨ Most recent year tested:     /    /    /    /        Test pressure (psig):     /    /    /    /      
 No
17. Has one or more Direct Assessment been conducted on this segment?  
 Yes, and an investigative dig was conducted at the point of the Accident    ⇨ Most recent year conducted:     /    /    /    /      
 Yes, but the point of the Accident was not identified as a dig site    ⇨ Most recent year conducted:     /    /    /    /      
 No
18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?  
 Yes     No
- 18.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 \_\_\_\_\_        /    /    /    /

<b>G2 - Natural Force Damage</b> - *only one <b>sub-cause</b> can be picked from shaded left-hand column	
<input type="checkbox"/> <b>Earth Movement, NOT due to Heavy Rains/Floods</b>	1. Specify: <input type="radio"/> Earthquake <input type="radio"/> Subsidence <input type="radio"/> Landslide <input type="radio"/> Other _____
<input type="checkbox"/> <b>Heavy Rains/Floods</b>	2. Specify: <input type="radio"/> Washout/Scouring <input type="radio"/> Flotation <input type="radio"/> Mudslide <input type="radio"/> Other _____
<input type="checkbox"/> <b>Lightning</b>	3. Specify: <input type="radio"/> Direct hit <input type="radio"/> Secondary impact such as resulting nearby fires
<input type="checkbox"/> <b>Temperature</b>	4. Specify: <input type="radio"/> Thermal Stress <input type="radio"/> Frost Heave <input type="radio"/> Frozen Components <input type="radio"/> Other _____
<input type="checkbox"/> <b>High Winds</b>	
<input type="checkbox"/> <b>Other Natural Force Damage</b>	5. Describe: _____
<b>Complete the following if any Natural Force Damage sub-cause is selected.</b>	
6. Were the natural forces causing the Accident generated in conjunction with an extreme weather event? <input type="radio"/> Yes <input type="radio"/> No	
6.a If Yes, specify: <i>(select all that apply)</i> <input type="radio"/> Hurricane <input type="radio"/> Tropical Storm <input type="radio"/> Tornado <input type="radio"/> Other _____	

<b>G3 – Excavation Damage</b> - *only one <b>sub-cause</b> can be picked from shaded left-hand column																			
<input type="checkbox"/> <b>Excavation Damage by Operator (First Party)</b>																			
<input type="checkbox"/> <b>Excavation Damage by Operator's Contractor (Second Party)</b>																			
<input type="checkbox"/> <b>Excavation Damage by Third Party</b>																			
<input type="checkbox"/> <b>Previous Damage due to Excavation Activity</b>	<p><b>Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.</b></p> <p>1. Has one or more internal inspection tool collected data at the point of the Accident? <input type="radio"/> Yes <input type="radio"/> No</p> <p>1.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:</p> <table border="0"> <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>2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? <input type="radio"/> Yes <input type="radio"/> No</p> <p>3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?</p> <p><input type="radio"/> Yes ⇒ Most recent year tested: _____ Test pressure (psig): _____</p> <p><input type="radio"/> No</p> <p>4. Has one or more Direct Assessment been conducted on the pipeline segment?</p> <p><input type="radio"/> Yes, and an investigative dig was conducted at the point of the Accident ⇒ Most recent year conducted: _____</p> <p><input type="radio"/> Yes, but the point of the Accident was not identified as a dig site ⇒ Most recent year conducted: _____</p> <p><input type="radio"/> No</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 _____	_____																		



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

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

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

Locating Practices Not Sufficient: (select only one)

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

Excavation Practices Not Sufficient: (select only one)

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

One-Call Notification Center Error

Abandoned Facility

Deteriorated Facility

Previous Damage

Data Not Collected

Other / None of the Above (explain) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



	since January 1, 2002? <input type="radio"/> Yes <input type="radio"/> No  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: <input type="radio"/> Radiography / / / / / <input type="radio"/> Guided Wave Ultrasonic / / / / / <input type="radio"/> Handheld Ultrasonic Tool / / / / / <input type="radio"/> Wet Magnetic Particle Test / / / / / <input type="radio"/> Dry Magnetic Particle Test / / / / / <input type="radio"/> Other _____ / / / / /
<input type="checkbox"/> Intentional Damage	8. Specify: <input type="radio"/> Vandalism <input type="radio"/> Terrorism <input type="radio"/> Theft of transported commodity <input type="radio"/> Theft of equipment <input type="radio"/> Other _____
<input type="checkbox"/> Other Outside Force Damage	9. Describe: _____

<b>G5 - Material Failure of Pipe or Weld</b>	Use this section to report material failures ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is "Pipe" or "Weld."
	*Only one <b>sub-cause</b> can be picked from shaded left-hand column

1. The sub-cause selected below is based on the following: <i>(select all that apply)</i> <input type="checkbox"/> Field Examination <input type="checkbox"/> Determined by Metallurgical Analysis <input type="checkbox"/> Other Analysis _____ <input type="checkbox"/> Sub-cause is Tentative or Suspected; Still Under Investigation <i>(Supplemental Report required)</i>	
<input type="checkbox"/> Construction-, Installation-, or Fabrication-related	2. List contributing factors: <i>(select all that apply)</i> <input type="checkbox"/> Fatigue- or Vibration-related: <input type="radio"/> Mechanically-induced prior to installation (such as during transport of pipe) <input type="radio"/> Mechanical Vibration <input type="radio"/> Pressure-related <input type="radio"/> Thermal <input type="radio"/> Other _____ <input type="checkbox"/> Mechanical Stress <input type="checkbox"/> Other _____
<input type="checkbox"/> Original Manufacturing-related (NOT girth weld or other welds formed in the field)	
<input type="checkbox"/> Environmental Cracking-related	3. Specify: <input type="radio"/> Stress Corrosion Cracking <input type="radio"/> Sulfide Stress Cracking <input type="radio"/> Hydrogen Stress Cracking <input type="radio"/> Other _____

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

4. Additional factors: <i>(select all that apply)</i> <input type="radio"/> Dent <input type="radio"/> Gouge <input type="radio"/> Pipe Bend <input type="radio"/> Arc Burn <input type="radio"/> Crack <input type="radio"/> Lack of Fusion <input type="radio"/> Lamination <input type="radio"/> Buckle <input type="radio"/> Wrinkle <input type="radio"/> Misalignment <input type="radio"/> Burnt Steel <input type="radio"/> Other _____	
5. Has one or more internal inspection tool collected data at the point of the Accident? <input type="radio"/> Yes <input type="radio"/> No 5.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: <input type="radio"/> Magnetic Flux Leakage Tool / / / / / <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 _____ / / / / /	
6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident? <input type="radio"/> Yes ⇨ Most recent year tested: / / / / / Test pressure (psig): / / / / / <input type="radio"/> No	
7. Has one or more Direct Assessment been conducted on the pipeline segment? <input type="radio"/> Yes, and an investigative dig was conducted at the point of the Accident ⇨ Most recent year conducted: / / / / / <input type="radio"/> Yes, but the point of the Accident was not identified as a dig site ⇨ Most recent year conducted: / / / / / <input type="radio"/> No	
8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002? <input type="radio"/> Yes <input type="radio"/> 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: <input type="radio"/> Radiography / / / / / <input type="radio"/> Guided Wave Ultrasonic / / / / / <input type="radio"/> Handheld Ultrasonic Tool / / / / / <input type="radio"/> Wet Magnetic Particle Test / / / / / <input type="radio"/> Dry Magnetic Particle Test / / / / / <input type="radio"/> Other _____ / / / / /	

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

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

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

6. Additional factors that contributed to the equipment failure: *(select all that apply)*
- Excessive vibration
  - Overpressurization
  - No support or loss of support
  - Manufacturing defect
  - Loss of electricity
  - Improper installation
  - Mismatched items (different manufacturer for tubing and tubing fittings)
  - Dissimilar metals
  - Breakdown of soft goods due to compatibility issues with transported commodity
  - Valve vault or valve can contributed to the release
  - Alarm/status failure
  - Misalignment
  - Thermal stress
  - Other \_\_\_\_\_

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

<input type="checkbox"/> <b>Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage</b>	
<input type="checkbox"/> <b>Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow</b>	1. Specify: <input type="radio"/> Valve misalignment <input type="radio"/> Incorrect reference data/calculation <input type="radio"/> Miscommunication <input type="radio"/> Inadequate monitoring <input type="radio"/> Other _____
<input type="checkbox"/> <b>Valve Left or Placed in Wrong Position, but NOT Resulting in a Tank, Vessel, or Sump/Separator Overflow or Facility Overpressure</b>	
<input type="checkbox"/> <b>Pipeline or Equipment Overpressured</b>	
<input type="checkbox"/> <b>Equipment Not Installed Properly</b>	
<input type="checkbox"/> <b>Wrong Equipment Specified or Installed</b>	
<input type="checkbox"/> <b>Other Incorrect Operation</b>	2. Describe: _____

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

3. Was this Accident 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 Accident:

- 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 Accident 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 Accident Cause** - \*only one **sub-cause** can be picked from shaded left-hand column

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



**PART H – NARRATIVE DESCRIPTION OF THE ACCIDENT**

*(Attach additional sheets as necessary)*

**PART I – PREPARER AND AUTHORIZED SIGNATURE**

Preparer's Name (type or print)

Preparer's Telephone Number

Preparer's Title (type or print)

Preparer's E-mail Address

Preparer's Facsimile Number

Authorized Signer's Name

Date

Authorized Signer Telephone Number

Authorized Signer's Title

Authorized Signer's E-mail Address

Instructions (rev xy-2015) for Form PHMSA F 7000-1 (rev xy-2015)  
ACCIDENT REPORT – HAZARDOUS LIQUID PIPELINE SYSTEMS

**GENERAL INSTRUCTIONS**

Each operator of a hazardous liquid pipeline system shall file Form PHMSA F 7000-1 for an accident that meets the criteria in 49 CFR §195.50 as soon as practicable but not more than 30 days after discovery of the accident. Requirements for submitting reports are in §195.54 and §195.58.

Hazardous liquid releases during maintenance activities are not to be reported if the spill was less than 5 barrels, not otherwise reportable under 49 CFR §195.50, did not result in water pollution as described by 49 CFR §195.52(a)(4), was confined to company property or pipeline right-of-way, and was cleaned up promptly. Any spill of 5 gallons or more to water during a maintenance activity is required to be reported.

Form PHMSA F 7000-1 and these instructions can be found on <http://phmsa.dot.gov/pipeline/library/forms>. The applicable documents are included in the section titled Accidents/Incidents/Annual Reporting Forms.

**ONLINE REPORTING REQUIREMENTS**

Accident 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](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” select “**ODES 2.0**”
5. Under “**Create Reports**” on the left side of the screen, select “Hazardous Liquid ” 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 Accident 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*

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*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 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 “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 §195.58(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 accident in accordance with §195.54 (oftentimes referred to as a 30-day written report) and upon subsequent investigation determines that the event did not meet the criteria in §195.50 may request that the report be retracted. Requests to retract a 30-day written report are to be emailed to [InformationResourcesManager@dot.gov](mailto: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 §195.52. 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.

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Note: PHMSA no longer requests that operators rescind erroneously reported “Immediate Notices” filed with the NRC in accordance with §195.52 (oftentimes referred to as “Telephonic Reports”).

**SPECIAL INSTRUCTIONS**

Certain data fields must be completed before an Original Report will be accepted. An 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 information becomes available.
5. If the question is not applicable, please enter “N/A” for text fields and leave numeric fields and fields using check boxes or “radio” buttons blank. 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 does not exist 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:

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**Time format Examples:**

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

**Local time** always refers to time at the site of the accident. Note that time zones at the accident 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 accident is to be reported as 1400 hours based on the time in Denver, which is the physical site of the accident.

**PART A – GENERAL 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 accident 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**

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*becomes available* and, per §195.54(b)15(c), each Supplemental Report containing new, updated, and/or corrected information is to be filed within 30 days. 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 within 30 days following the Operator’s awareness of new, updated, and/or corrected information.*** Failure to comply with these requirements can result in enforcement actions, including the assessment of civil penalties not to exceed \$100,000 for each violation for each day that such violation persists up to a maximum of \$1,000,000.

In cases where an accident results in long-term remediation, an operator may cease filing Supplemental Reports in the following situations and, instead, file a Final Report even when additional remediation costs and recovery of released commodity are still occurring:

1. When the accident response consists only of long-term remediation and/or monitoring which is being conducted under the auspices of an authorized governmental agency or entity.
2. When the estimated final costs and volume of commodity recovered can be predicted with a reasonable degree of certainty.
3. When the volume of commodity recovered over time is consistently decreasing to the point where an estimated total volume of commodity recovered can be predicted with a reasonable degree of accuracy.
4. When the operator can justify (and explain in the Part H – Narrative) that the continuation of Supplemental Report filings in the future will not provide any essential information which will be critically different than that contained in a Final Report filed currently.

In any of these cases, though, if the reported total volume of commodity released or other previously reported data other than “Estimated cost of Operator’s environmental remediation” or “Estimated volume of commodity recovered” is found to be inaccurate, a Supplemental Report is still required.

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 18 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**

This is the headquarters address associated with the OPID. For online entries, the 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 Accident**

Enter the earliest local date/time an accident 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.

**5. Location of Accident**

The latitude and longitude of the accident 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.**

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If you cannot locate the accident 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**

Accidents meeting the criteria outlined in §195.52 are to 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 accident 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 accident did not occur in the eastern time zone. (See “Special Instructions”, numbers 9 and 10.)

**8. Commodity Released**

Select only one primary description of the commodity and then, where applicable, the secondary description of the commodity, based on the predominant volume released. Only releases of transported commodities are reportable.

**Crude Oil**

**Refined and/or Petroleum Product (non-HVL) which is a Liquid at Ambient Conditions**

**Refined and/or Petroleum Product** includes gasoline, diesel, jet fuel, kerosene, fuel oils, or other refined or petroleum products which are a liquid at ambient conditions. They are flammable, toxic, or corrosive products obtained from distilling or processing of crude oil, unfinished oils, natural gas liquids, blend stocks, and other miscellaneous hydrocarbon compounds. For a non-HVL petrochemical feedstock, such as propylene, report as “other” and specify the name of the commodity (e.g., “propylene”) in the space provided.

**HVL or Other Flammable or Toxic Fluid which is a Gas at Ambient Conditions**

**Highly Volatile Liquids (HVLs)** are hazardous liquids or liquid mixtures



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which will form a vapor cloud when released to the atmosphere and have a vapor pressure exceeding 276 kPa at 37.8 C.

**Other Flammable or Toxic Fluids** are those defined under 49 CFR 173.120 Class 3—Definitions

Other flammable or toxic fluids which fall under this category include gases at ambient conditions, such as anhydrous ammonia (NH<sub>3</sub>) and propane. For a petrochemical feedstock, such as ethane or ethylene, which is also classified as a highly volatile liquid, report as “Other HVL” and specify the appropriate name (e.g., “ethane” or “ethylene”) in the space provided.

- CO<sub>2</sub> (Carbon Dioxide)**
- Biofuel/Alternate Fuel (including ethanol blends)**

Fuel Grade Ethanol is denatured ethanol before it has been mixed with a petroleum product or other hydrocarbon; sometimes also referred to as neat ethanol.

Ethanol Blend is ethanol plus a petroleum product such as gasoline. Such mixtures may be referred to as E10 or E85, for example, representing a 10% or 85% blend respectively. In the space provided, specify the percentage of ethanol in the mixture. Blends greater than 95% ethanol should be reported as Fuel Grade Ethanol.

Biodiesel is a diesel liquid distilled from biological feedstocks vs. crude oil. Biodiesel is typically shipped as a blend mixed with a petroleum product. Report the percentage biodiesel in the blend as shown. For pure biodiesel, report 100.

**General Information for Questions 9, 10, and 11:**

**Estimate volumes in barrels.** 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	<b>0.1</b> barrels	24-27 gallons	<b>0.6</b> barrels
5-10 gallons	<b>0.2</b> barrels	28-31 gallons	<b>0.7</b> barrels
11-14 gallons	<b>0.3</b> barrels	32-35 gallons	<b>0.8</b> barrels
15-18 gallons	<b>0.4</b> barrels	36-39 gallons	<b>0.9</b> barrels
19-23 gallons	<b>0.5</b> barrels	40-42 gallons	<b>1.0</b> barrels

## 9. Estimated volume of commodity released unintentionally

Estimate the amount of commodity released from the pipeline system at the failure site. If the product is consumed by fire inside a tank, do not include the volume consumed by fire in the spill volume, but do include the cost of this commodity in D8. An estimate of the volume released may be based on a variety and/or combination of inputs, including:

- calculations made by hydraulic engineers
- volume added to the pipeline segment to repack the line when the line is placed back in service
- measured volume of free phase commodity recovered, with allowances for commodity that is not recovered.
- volume calculated to be absorbed by soil or water
- volume calculated to have been lost to evaporation (e.g., for gasoline spills)

## 10. Estimated volume of intentional and/or controlled release/blowdown

This section is completed only for HVL and CO<sub>2</sub> releases. Estimate the amount of commodity that was released during any intentional release or controlled blowdown conducted as part of responding to or recovering from the accident. 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.

## 11. Estimated volume of commodity recovered

**Recovered** means the commodity is no longer in the environment. The commodity could have been removed by: absorbent pads or similar mechanisms; transferring to temporary storage such as a vacuum truck, a frac tank, or similar vessel; soil removal; bio-remediation; or other similar means of removal or recovery. The volume recovered can be estimated based on a variety or combination of the measurement of free phase commodity recovered, the amount calculated to be absorbed by soil or water that was removed from the environment, measurement of oil extracted from absorbent pads, etc.

## 12. Were there fatalities?

If a person dies at the time of the accident or within 30 days of the initial accident date due to injuries sustained as a result of the accident, report as a fatality. If a person dies subsequent to an injury more than 30 days past the accident date, report as an injury. (Note: This aligns with the 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 accident scene including on-duty and volunteer fire fighters, rescue workers,

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EMTs, police officers, etc. “Good Samaritans” that stop to assist should be reported as “General public.”

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

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

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

See Question 12 for additional definitions that apply.

**14. Was the pipeline/facility shut down due to the Accident?**

Report any shutdowns that occur as a result of the accident, 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 14.a and 14.b.

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

**14.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 accident was physically located. (See “Special Instructions”, numbers 9 and 10.) Enter the time and date the pipeline was isolated or equipment stopped in 14.a. The affected facilities may still contain commodity at this time. Enter the time and date of restart in 14.b. The intent with this data is to capture the total time that the pipeline or facility is shutdown due to the accident. If the pipeline or facility has not been restarted at the time of reporting, select “Still shut down” for Question 14.b and then include the restart time and date in a future Supplemental Report.

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**15. Did the Commodity Ignite?**

**Ignite** means the released commodity caught fire.

**16. Did the Commodity Explode?**

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

**17. 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 Accident.

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

In 18a, enter the date/time the operator became aware of the failure. The earliest date/time than an accident reporting criteria was met is reported in item A4. In some cases, the operator may become aware of a failure before an accident reporting criteria is met. In other cases, one of more accident reporting criteria may be met before the operator becomes aware of the failure. In 18b, enter the date/time operator responders, company or contract, arrived on site. Chronologically, 18b must be concurrent with or later than 18a. These times are to be shown by 24-hour clock notation and reported in the time zone where the accident 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 accident onshore?**

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

**If Onshore**

**2 – 5. Accident Location**

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

**6. Operator-designated Location**

This is intended to be the designation that the operator would use to identify the location of the accident on its pipeline system. Enter the appropriate milepost/valve station or survey

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station number. This designator is intended to allow PHMSA personnel to both return to the physical location of the accident using the operator's own maps and identification systems as well as to identify the "paper" location of the accident 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 accident occurred, for example, the "West Line 24" Pipeline", or "Gulf Coast Pipeline", or "Wooster Terminal".

### **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 reported here helps locate and/or record the more precise accident location, for example, "Segment 4-32", or "MP 4.5 to Wayne County Line", or "Dublin Pump Station", or "Witte Meter Station".

### **9. Was the Accident on Federal Lands other than 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. Accidents 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 Accident**

**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 Accident (as found)**

This refers to the location on the pipeline at which commodity was released, resulting in the accident. It does not refer to adjacent locations in which released commodity 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.

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

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

## 12. Did Accident occur in a crossing?

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

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

Use **Water Crossing** if the pipeline is in the water, beneath the water, in contact with the natural ground of the lake bed, etc., or buried beneath the bed of a lake, reservoir, stream or creek, whether the crossing happens to be flowing water at the time of the accident or not. The name of the body of water should be provided if it is commonly known and understood among the local population. (The purpose of this information is to allow persons familiar with the area in which the accident 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 of the accident, 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 Accident

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This is be the estimated depth from the surface of the water to the seabed at the point of the accident 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 Accident

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 accident occurred to identify the location and understand it in its local context. Accordingly, it is not necessary to take measurements to determine which county/parish is “nearest” in cases where the accident 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]?

As defined in section 195.2, **Interstate pipeline** means a pipeline or that part of a pipeline that is used in transportation of hazardous liquids or carbon dioxide in interstate or foreign commerce.

As defined in section 195.2, **Intrastate pipeline** means a pipeline or that part of a pipeline to which Part 195 applies that is not an interstate pipeline.

Operators may refer to Appendix A of Part 195 for further guidance.

#### 3. Item involved in Accident

**Pipe** (whether pipe body or pipe seam) means the pipe through which the commodity 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.

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

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

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

**SAW** means submerged arc weld

**ERW** means electric-resistance weld

**DSAW** means double submerged arc weld

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

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

#### **6. Type of Accident involved (*select only one*)**

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

**Leak** means a failure resulting in an unintentional release of the transported commodity 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 one decimal.)

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

**Per 195.450, High Consequence Area means:**

- 1. A *commercially navigable waterway*, which means a waterway where a substantial likelihood of commercial navigation exists;**



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2. A *high population area*, which means an urbanized area as defined and delineated by the Census Bureau that contains 50,000 or more people and has a population density of at least 1,000 people per square mile;
3. An *other populated area*, which means a place as defined and delineated by the Census Bureau that contains a concentrated population, such as an incorporated or unincorporated city, town, village, or other designated residential or commercial area;
4. An *unusually sensitive area*, as defined in §195.6

\* \* \* \* \*

**5.b Estimated amount released in or reaching water**

An estimate of the volume released in or reaching water may be based on a variety and/or combination of inputs, including those mentioned above for PART A, Questions 9 and 10.

**5.c Name of body of water, if commonly known:**

The name of the body of water should be provided if it is commonly known and understood among the local population. The purpose of this information is to allow persons familiar with the area in which the accident occurred to identify the location and understand it in its local context. Research to identify names that are not commonly used is not necessary since such names would not fulfill the intended purpose. If a body of water does not have a name that is commonly used and understood in the local area, this field should be left blank.

**6. At the location of this Accident, had the pipeline segment or facility been identified as one that “could affect” a High Consequence Area (HCA) as determined in the Operator’s Integrity Management Program?**

This question should be answered based on the classification of the involved segment in the operator’s integrity management (IM) program at the time of the accident, whether or not consequences to an HCA ensued. It is possible that a release on a pipeline segment that “could affect” an HCA might not actually affect an HCA. It is also possible that releases from segments thought not able to affect an HCA might have such an affect. This could indicate a deficiency in the operator’s IM program for identifying segments that can affect HCAs, and all of this information is useful for PHMSA’s overall evaluations concerning the efficacy of IM regulation.

**7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)?**

Generally, a spilled commodity will have “reached” an HCA if the spill zone intersects the boundaries of the HCA polygon as mapped by the National Pipeline Mapping System. The HCA maps should be available as a part of each operator’s Integrity Management Program as per §195.452.

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Guidance from the Pipeline Performance Tracking System (PPTS) is available at <http://www.api.org/oil-and-natural-gas-overview/transporting-oil-and-natural-gas/pipeline-performance-ppts/ppts-related-files.aspx>, specifically PPTS Advisory 2004-1.

**7.a. HCA Type (select all that apply)**

Refer to the definitions in §195.450 listed at the start of Part D. Leave this question blank if the released commodity did not reach or occur in a High Consequence Area.

**8. Estimated Property Damage**

All relevant costs available at the time of submission must be included on the initial written Accident 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, commodity lost, facility repair and replacement, and environmental cleanup and damage. Do NOT include costs incurred for facility repair, replacement, or change that are NOT related to the accident 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 accident. Litigation and other legal expenses related to the accident 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 (30 days, per §195.54). The best available estimate of these costs should be included in the initial report. For convenience, this estimate can be revised, if needed, when Supplemental Reports are filed for other reasons, however, when no other changes are forthcoming, Supplemental Reports 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 environmental 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 accident.

**Cost of commodity lost** includes the cost of the commodity not recovered and/or the cost of recovered commodity downgraded to a lower value or re-processed, and is to be based on the volume reported in PART A, Questions 9 and 11. The volume of commodity consumed by fire inside a tank is not included in A9, but the cost of the commodity should be included in this section.

**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 accident, excluding litigation and other legal expenses related to the accident.

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When estimating the **Cost of repairs** to company facilities, the standard shall be the cost necessary to safely restore pipeline facilities to the pre-accident level of service. Cost of repairs include the cost to access, excavate, and repair the pipeline using methods, materials, and labor necessary to re-establish operations. These costs may include the cost of repair sleeves or clamps, re-routing of piping, or the removal from service of an appurtenance, tank, 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 accident. Costs associated with improvements to the pipeline or other facilities to mitigate the risk of future failures are not included.

Estimated costs of **Operator's emergency response** include emergency response operations necessary to return the accident site to a safe state, actions to minimize the volume of commodity released, conduct reconnaissance, identify the extent of accident impacts, and contain, control, mitigate, recover, and remove the commodity from the environment, to the maximum extent practicable. They include materials, supplies, labor, and benefits. Costs related to stakeholder outreach, media response, etc. are not to be included. The estimated costs of long-term remediation activities should be included in Environmental Remediation estimates.

**Environmental remediation** includes the estimated cost to remediate a site such as those associated with engineering, scientists, laboratory costs, and the installation, operation, and maintenance of long-term recovery systems, etc.

**Other costs** are to include any and all costs which are not included above. 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.

**PART E – ADDITIONAL OPERATING INFORMATION**

**1. Estimated Pressure**

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

**2. Maximum Operating Pressure (MOP)**

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

**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 Accident operating under an established pressure restriction with pressure limits below those normally allowed by the MOP?**

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 requirements, e.g., a pressure reduction taken because an anomaly identified during an IM assessment could not be repaired within the required schedule (§195.452(h)(3)), 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 accident 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 accident 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 spill area.

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

**Gathering** means a crude oil pipeline 8-5/8 inches or less nominal outside diameter that transports petroleum from a production facility.

**Trunkline/Transmission** means all other pipeline assets not meeting the gathering definition.

**% SMYS** means at the maximum operating pressure, the hoop stress created as a percentage of the specified minimum yield strength (SMYS) of the pipe.

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

This does not mean a system designed or used exclusively for leak detection.

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

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

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

Was the SCADA system capable of performing all of its functions, whether or not it was actually in operation at the time of the accident? If No, describe functions that were not operational in PART H – Narrative Description of the Accident.

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

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

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

**7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?**

This means a system designed and used exclusively for leak detection.

Follow instructions for Question 6 above.

**8. How was the Accident initially identified for the Operator? (select only one)**

**Controller** per the definition in API RP 1168 means a qualified individual whose function within a shift is to remotely monitor and/or control the operations of entire or multiple

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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.

**9. 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 Accident?**

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 accident.

**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-accident drug and alcohol tests are in 49 CFR §199.105 and §199.225 respectively. If the accident 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 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 Accident. 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 Accident in PART H – Narrative Description of the Accident.

**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**

**2. Type of corrosion** – if Stress Corrosion Cracking, or other environmental cracking, was the apparent cause, use section G5.

**4.a. Under cathodic protection** means cathodic protection in accordance with §195.563 or §195.573(b). Recognizing that older pipelines may have had cathodic protection added over a number of years, provide an estimate if the exact year cathodic protection started is unknown.

**Internal Corrosion**

**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 commodity treated with corrosion inhibitors or biocides?**

Select Yes if corrosion inhibitors or biocides were included in the commodities transported.

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

**13. Were corrosion coupons routinely utilized?**

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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. List the year of the most recent inspections**

Complete this question only when any corrosion failure sub-cause is selected AND the item involved in the accident (as reported in PART C, Question 3) is “Tank/Vessel”. Do not complete if the item involved is Pipe, Weld, or any other item.

**15.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.

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

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

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

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



## **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 accidents caused by land shifts such as earthquakes, subsidence, or landslides, 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 accident.

**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 accidents 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 Accident.

Answer Questions 6 and 6.a if the accident 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 accident under G4 as “Previous Mechanical Damage NOT related to Excavation.”

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

**Excavation Damage by Operator’s Contractor (Second Party)** refers to accidents 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 accidents 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 accidents 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.

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**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 Accident?**

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

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

**G4 – Other Outside Force Damage**

**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 Accident** applies to situations where the fire occurred before - and *caused* - the release. Examples of such an accident would be an explosion or fire at a neighboring facility or installation (chemical plant, tank farm, 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 accident's cause is to be classified under G2 - Natural Force Damage. Arson events directed at harming the pipeline or the operator should be reported as G4 - Intentional Damage (see below).

**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 commodity 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 accidents 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 accidents resulting from vehicular traffic loading or other contact should also be

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reported in this category. If the activity that caused the release involved digging, drilling, boring, grading, cultivation or similar 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 accidents which are caused by the impact of maritime equipment or vessels while they are engaged in their normal or routine activities; such accidents 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 as dredging or bank stabilization or renewal, the accident is to be reported under G3 - Excavation Damage.

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

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damage inflicted to harass the operator, motor vehicle damage that was inflicted intentionally, and a variety of other intentional acts.

**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 commodity or pipeline equipment.

**Other** Describe in the space provided and, if necessary, provide additional explanation in PART H – Narrative Description of the Accident.

**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 Accident.

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

Use this section to report material failures **only if** “Item Involved in accident” (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 weld 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.

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If **Construction, Installation, 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 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 accident cause include: overpressurization resulting from malfunction of a control or alarm device; relief valve malfunction; valves failing to open or close on command; or valves which opened or closed when not commanded to do so. If overpressurization or some other aspect of this accident was caused by incorrect operation, the accident should 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 Accident.

**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 Accident.

**G8 – Other Accident Cause**

This section is provided for accidents whose cause is currently unknown, or where investigation into the cause has been exhausted and the final judgment as to the cause

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

If the accident 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 accident 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 accident. 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.

**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 accident 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 Accident. 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 ACCIDENT**

Concisely describe the accident, including the facts, circumstances, and conditions that may have contributed directly or indirectly to causing the accident. 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 accident in detail, including all known or suspected causes and possible contributing factors.

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**PART I – PREPARER AND AUTHORIZED SIGNATURE**

The Preparer is the person who compiled the data and prepared the responses to the report and who is to be contacted for more information (preferably the person most knowledgeable about the information in the report or who knows how to contact the person most knowledgeable). 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.