

 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration	<b>INCIDENT REPORT – GAS TRANSMISSION, GAS GATHERING, AND UNDERGROUND NATURAL GAS STORAGE FACILITIES</b>	<b>REPORT RECEIVED DATE</b> Report Date _____ <b>REPORT NUMBER</b> No. <b>SUPPLEMENTAL NUMBER</b> (DOT Use Only)
A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0635. Public reporting for this collection of information is estimated to be approximately 12 hours per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.		
<b>INSTRUCTIONS</b> <i>Use this form for Type A, B, and C gas gathering. Type R gas gathering is reported on Form PHMSA F 7100.2-2.</i>		
<b>Important:</b> Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at <a href="http://www.phmsa.dot.gov/pipeline/library/forms">http://www.phmsa.dot.gov/pipeline/library/forms</a> .		
<b>PART A – KEY REPORT INFORMATION</b> Report Type: (select all that apply) <input type="checkbox"/> Original <input type="checkbox"/> Supplemental <input type="checkbox"/> Final <b>REPORT_TYPE</b>		
A1. Operator's OPS-issued Operator Identification Number (OPID): / / / / / / <b>OPERATOR_ID</b>		
A2. Name of Operator: <i>auto-populated based on OPID</i> <b>NAME</b>		
A3. Address of Operator: A3a. Street Address: <i>auto-populated based on OPID</i> <b>OPERATOR_STREET_ADDRESS</b> A3b. City: <i>auto-populated based on OPID</i> <b>OPERATOR_CITY_NAME</b> A3c. State: <i>auto-populated based on OPID</i> <b>OPERATOR_STATE_ABBREVIATION</b> A3d. Zip Code: <i>auto-populated based on OPID</i> <b>OPERATOR_POSTAL_CODE</b>		
A4. Local time (24-hr clock) and date an incident: <b>LOCAL_DATETIME</b> / / / / /      / / /      / / /      / / / Hour      Month      Day      Year <b>TIME_ZONE</b>		
A4a. Time Zone for local time (select only one) <input type="radio"/> Alaska <input type="radio"/> Eastern <input type="radio"/> Central <input type="radio"/> Hawaii-Aleutian <input type="radio"/> Mountain <input type="radio"/> Pacific.		
A4b. Daylight Saving in effect? <input type="radio"/> Yes <input type="radio"/> No <b>DAYLIGHT_SAVINGS_IND</b>		
A5. Location of Incident: Latitude: / / / . / / / / / / <b>LOCATION_LATITUDE</b> Longitude: - / / / . / / / / / / <b>LOCATION_LONGITUDE</b>		

A6. Gas released: (select only one, based on predominant volume released) <b>COMMODITY_RELEASED_TYPE</b>																	
<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas <input type="checkbox"/> Synthetic Gas <input type="checkbox"/> Hydrogen Gas <input type="checkbox"/> Landfill Gas <input type="checkbox"/> Other Gas ➔ Name: _____ <b>COMMODITY_DETAILS</b>																	
A7. Estimated volume of gas released unintentionally: _____ <b>UNINTENTIONAL_RELEASE</b> _____ thousand standard cubic feet (mcf)																	
A8. Estimated volume of intentional and controlled release/blowdown : _____ <b>INTENTIONAL_RELEASE</b> _____ thousand standard cubic feet (mcf)																	
A9. Estimated volume of accompanying liquid released: _____ <b>ACCOMPANYING LIQUID</b> _____ Barrels																	
<table border="1"> <tr> <td>A10. Were there fatalities? <input type="radio"/> Yes <input type="radio"/> No <b>FATALITY_IND</b> If Yes, specify the number in each category:</td> <td style="text-align: right;"><b>INJURY_IND</b></td> </tr> <tr> <td>A10a. Operator employees <b>NUM_EMP_FATALITIES</b> <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> <td>A11. Were there injuries requiring inpatient hospitalization? <input type="radio"/> Yes <input type="radio"/> No If Yes, specify the number in each category:</td> </tr> <tr> <td>A10b. Contractor employees <b>NUM_CONTR_FATALITIES</b> working for the Operator <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> <td>A11a. Operator employees <b>NUM_EMP_INJURIES</b> <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> </tr> <tr> <td>A10c. Non-Operator <b>NUM_ER_FATALITIES</b> emergency responders <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> <td>A11b. Contractor employees <b>NUM_CONTR_INJURIES</b> working for the Operator <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> </tr> <tr> <td>A10d. Workers working on the  right-of-way, but NOT <b>NUM_WORKER_FATALITIES</b> associated with this Operator <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> <td>A11c. Non-Operator <b>NUM_ER_INJURIES</b> emergency responders <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> </tr> <tr> <td>A10e. General public <b>NUM_GP_FATALITIES</b> <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> <td>A11d. Workers working on the  right-of-way, but NOT <b>NUM_WORKER_INJURIES</b> associated with this Operator <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> </tr> <tr> <td>A10f. Total fatalities (sum of above) <b>calculated FATAL</b></td> <td>A11e. General public <b>NUM_GP_INJURIES</b> <hr/><b>_____ / _____ / _____ / _____ / _____ / _____</b></td> </tr> <tr> <td></td> <td>A11f. Total injuries (sum of above) <b>calculated INJURE</b></td> </tr> </table>		A10. Were there fatalities? <input type="radio"/> Yes <input type="radio"/> No <b>FATALITY_IND</b> If Yes, specify the number in each category:	<b>INJURY_IND</b>	A10a. Operator employees <b>NUM_EMP_FATALITIES</b> <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A11. Were there injuries requiring inpatient hospitalization? <input type="radio"/> Yes <input type="radio"/> No If Yes, specify the number in each category:	A10b. Contractor employees <b>NUM_CONTR_FATALITIES</b> working for the Operator <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A11a. Operator employees <b>NUM_EMP_INJURIES</b> <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A10c. Non-Operator <b>NUM_ER_FATALITIES</b> emergency responders <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A11b. Contractor employees <b>NUM_CONTR_INJURIES</b> working for the Operator <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A10d. Workers working on the right-of-way, but NOT <b>NUM_WORKER_FATALITIES</b> associated with this Operator <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A11c. Non-Operator <b>NUM_ER_INJURIES</b> emergency responders <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A10e. General public <b>NUM_GP_FATALITIES</b> <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A11d. Workers working on the right-of-way, but NOT <b>NUM_WORKER_INJURIES</b> associated with this Operator <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>	A10f. Total fatalities (sum of above) <b>calculated FATAL</b>	A11e. General public <b>NUM_GP_INJURIES</b> <hr/> <b>_____ / _____ / _____ / _____ / _____ / _____</b>		A11f. Total injuries (sum of above) <b>calculated INJURE</b>
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A12. What was the Operator's initial indication of the Failure? (select only one) <b>ACCIDENT_IDENTIFIER</b>																	
<input type="checkbox"/> SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) <input type="checkbox"/> Static Shut-in Test or Other Pressure or Leak Test <input type="checkbox"/> Controller <input type="checkbox"/> Air Patrol <input type="checkbox"/> Notification from Public <input type="checkbox"/> Notification from Third Party that caused the Incident																	
<input type="checkbox"/> Local Operating Personnel, including contractors <input type="checkbox"/> Ground Patrol by Operator or its contractor <input type="checkbox"/> Notification from Emergency Responder <input type="checkbox"/> Other _____ <b>ACCIDENT_DETAILS</b>																	
A12a. If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 12, specify the following: (select only one) <b>OPERATOR_TYPE</b>																	
<input type="radio"/> Operator employee <input type="radio"/> Contractor working for the Operator																	
A13. Local time Operator identified failure <b>INCIDENT_IDENTIFIED_DATETIME</b> _____ Hour    _____ Month    _____ Day    _____ Year																	
A14. Part of system involved in Incident: (select only one) <b>SYSTEM_PART_INVOLVED</b>																	
<input type="checkbox"/> Belowground Storage, Including Associated Equipment and Piping <input type="checkbox"/> Aboveground Storage, Including Associated Equipment and Piping <input type="checkbox"/> Onshore Compressor Station Equipment and Piping <input type="checkbox"/> Onshore Regulator/Metering Station Equipment and Piping <input type="checkbox"/> Onshore Pipeline, Including Valve Sites <input type="checkbox"/> Offshore Platform, Including Platform-mounted Equipment and Piping <input type="checkbox"/> Offshore Pipeline, Including Riser and Riser Bend																	
<b>STATUS_WHEN_IDENTIFIED</b>																	
A15. Operational Status at time Operator identified failure (select only one)																	
<input type="radio"/> Post-Construction Commissioning <input type="radio"/> Post-Maintenance/Repair <input type="radio"/> Routine Start-Up <input type="radio"/> Routine Shutdown <input type="radio"/> Normal Operation, includes pauses during maintenance <input type="radio"/> Idle																	
<b>SHUTDOWN_DUE_ACCIDENT_IND</b>																	
A16. If A15 = Routine Start-Up or Normal Operation, was the pipeline/facility shut down due to the incident?																	
<input type="radio"/> Yes <input type="radio"/> No ➔ Explain: _____ <b>SHUTDOWN_EXPLAIN</b>																	
If Yes, complete Questions A16.a and A16.b: (use local time, 24-hr clock)																	
A16a. Local time and date of shutdown <b>SHUTDOWN_DATETIME</b> _____ Hour    _____ Month    _____ Day    _____ Year																	

A16b. Local time pipeline/facility restarted	<u>RESTART_DATETIME</u>	/ / / / Hour	/ / / Month	/ / / Day	/ / / Year	<u>STILL_SHUTDOWN_IND</u>
						<input type="radio"/> Still shut down*
						*Supplemental Report required
If A12. = Notification from Emergency Responder, skip A17.						
A17a. Did the operator communicate with Local, State, or Federal Emergency Responders about the incident? <input type="radio"/> Yes <input type="radio"/> No						
If No, skip A17b and c.						
<b>PARTY_INITIATED_COMMUNICATION</b>						
A17b. Which party initiated communication about the incident? <input type="radio"/> Operator <input type="radio"/> Local/State/Federal Emergency Responder						
A17c. Local time of initial Operator and Local/State/Federal Emergency Responder communication <u>INITIAL_RESPONDER_COM_DATETIME</u>						
<u>ON_SITE_DATETIME</u>						
A18. Local time operator resources arrived on site	/ / / / Hour	/ / / Month	/ / / Day	/ / / Year		
A19. Local time of confirmed discovery	<u>CONFIRMED_DISCOVERY_DATETIME</u>	/ / / Hour	/ / / Month	/ / / Day	/ / / Year	
A20a. Local time (24-hr clock) and date of initial operator report to the National Response Center :						
/ / / / Hour	/ / Month	/ / Day	/ / Year	<u>NRC_RPT_DATETIME</u>		
A20b. Initial Operator National Response Center Report Number <u>NRC_RPT_NUM</u> OR <input type="radio"/> NRC Notification Required But Not Made						
A20c. Additional NRC Report numbers submitted by the operator: <u>ADDITIONAL_NRC_REPORT_NUMBERS</u>						
A21. Did the gas ignite? <input type="radio"/> Yes <input type="radio"/> No <b>IGNITE_IND</b>						
If A21 = Yes, then answer A21a through d:						
<b>IGNITE_DATETIME</b>						
A21a. Local time of ignition	/ / / / Hour	/ / / Month	/ / / Day	/ / / Year		
A21b. How was the fire extinguished? <b>HOW_EXTINGUISHED</b>	<input type="radio"/> Operator/Contractor <input type="radio"/> Local/State/Federal Emergency Responder <input type="radio"/> Allowed to burn out <input type="radio"/> Other, specify: _____					
<b>GAS_CONSUMED_BY_FIRE_IN_MCF</b>						
A21c. Estimated volume of gas consumed by fire (mcf): (must be less than or equal to A7.)						
<b>EXPLODE_IND</b>						
A21d. Did the gas explode? <input type="radio"/> Yes <input type="radio"/> No						
If A14. is "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend", answer A22a through f						
<b>UPSTREAM_ACTION_TAKEN</b>						
A22a. Initial action taken to control flow upstream of failure location <input type="radio"/> Valve Closure <input type="radio"/> Operational Control - mandatory text field						
If Valve Closure, answer A22.b and c:						
<b>UPSTREAM_VALVE_CLOSE_DATETIME</b>						
A22b. Local time of final upstream valve closure	/ / / / Hour	/ / / Month	/ / / Day	/ / / Year		
A22c. Type of upstream valve used to complete upstream isolation of release source: <input type="radio"/> Manual <input type="radio"/> Automatic <input type="radio"/> Remotely Controlled <b>DOWNTREAM_OPRTNL_CNTRL_DETAIL</b>						
A22d. Initial action taken to control flow downstream of failure location <input type="radio"/> Valve Closure <input type="radio"/> Operational Control - mandatory text field						
If Valve Closure, answer A22e and f.:						
<b>DOWNSTREAM_VLV_CLOSE_DATETIME</b>						
A22e. Local time of final downstream valve closure	/ / / / Hour	/ / / Month	/ / / Day	/ / / Year		
A22f. Type of downstream valve used to complete downstream isolation of release source: <b>DOWNTREAM_VALVE_TYPE_IND</b>						
<input type="radio"/> Manual <input type="radio"/> Automatic <input type="radio"/> Remotely Controlled <input type="radio"/> Check Valve						
A23. Number of general public evacuated: <u>NUM_PUB_EVACUATED</u>						



PART C – ADDITIONAL FACILITY INFORMATION	
<p>C1. Is the pipeline or facility: <b>PIPE_FACILITY_TYPE</b></p> <p><input type="checkbox"/> Interstate <input type="checkbox"/> Intrastate</p>	
<p>C2. Material involved in Incident: (select only one) <b>MATERIAL_INVOLVED</b></p> <p><input type="checkbox"/> Carbon Steel <input type="checkbox"/> Plastic <input type="checkbox"/> Material other than Carbon Steel or Plastic <input type="checkbox"/> *Specify: <b>MATERIAL_DETAILS</b></p>	
<p>C3. Item involved in Incident: (select only one) <b>ITEM_INVOLVED</b></p> <p><input type="checkbox"/> Pipe <input type="checkbox"/> Specify: <input type="radio"/> Pipe Body <input type="radio"/> Pipe Seam      C3a. Nominal Pipe Size: <b>PIPE_DIAMETER</b> / / - / / / / / /</p> <p>If Pipe Body: Was this a Puddle/Spot Weld? <input type="radio"/> Yes <input type="radio"/> No <b>PUDDLE_WELD_IND</b></p>	
<p>If C2. is Carbon Steel <b>PIPE_WALL_THICKNESS</b></p> <p>C3b. Wall thickness (in): <b>/ . / / / /</b></p> <p>C3c. SMYS (Specified Minimum Yield Strength) of pipe (psi): <b>/ / / - / / / / / /</b></p> <p>C3d. Pipe specification: <b>PIPE_SPECIFICATION</b> OR <input type="radio"/> Unknown</p>	
<p>C3e. Pipe Seam <input type="checkbox"/> Specify: <input type="radio"/> Longitudinal ERW - High Frequency <input type="radio"/> Single SAW <input type="radio"/> Flash Welded <input type="radio"/> DSAW  <b>PIPE_SEAM_TYPE</b>  <input type="radio"/> Longitudinal ERW - Low Frequency <input type="radio"/> Continuous Welded <input type="radio"/> Furnace Butt Welded  <input type="radio"/> Longitudinal ERW – Unknown Frequency  <input type="radio"/> Spiral Welded <input type="radio"/> Lap Welded <input type="radio"/> Seamless <input type="radio"/> Other <b>PIPE_SEAM_DETAILS</b></p>	
<p>C3f. Pipe manufacturer: <b>PIPE_MANUFACTURER</b> OR <input type="radio"/> Unknown</p>	
<p>C3g. Pipeline coating type at point of Incident <b>PIPE_COATING_TYPE</b></p> <p><input type="checkbox"/> Specify: <input type="radio"/> Epoxy <input type="radio"/> Coal Tar <input type="radio"/> Asphalt <input type="radio"/> Polyolefin  <input type="radio"/> Extruded Polyethylene <input type="radio"/> None <input type="radio"/> Cold Applied Tape <input type="radio"/> Paint  <input type="radio"/> Composite <input type="radio"/> Other <b>PIPE_COATING_DETAILS</b></p>	
<p>C3h. Coating field applied? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown <b>COATING_APPLIED_IND</b></p>	
<p>If C2. is Plastic <b>PLASTIC_TYPE</b></p> <p>C3i. If Plastic <input type="checkbox"/> Specify type: <input type="radio"/> Polyvinyl Chloride (PVC) <input type="radio"/> Polyethylene (PE) <input type="radio"/> Cross-linked Polyethylene (PEX)  <input type="radio"/> Polybutylene (PB) <input type="radio"/> Polypropylene (PP) <input type="radio"/> Acrylonitrile Butadiene Styrene (ABS)  <input type="radio"/> Polyamide (PA) <input type="radio"/> Cellulose Acetate Butyrate (CAB)  <b>PLASTIC_DETAILS</b> <input type="radio"/> Unknown <input type="radio"/> Other: mandatory text field <b>WT_PLASTIC</b> <b>WT_PLASTIC_UNKNOWN_IND</b></p>	
<p>C3j. If Plastic <input type="checkbox"/> Specify Standard Dimension Ratio (SDR): <b>/ / / / /</b> or wall thickness: <b>/ . / / / /</b> or <input type="radio"/> Unknown</p>	
<p>C3k. If Polyethylene (PE) is selected as the type of plastic in C3j, specify PE Pipe Material Designation Code (i.e., 2406, 3408, etc.)  <b>MATERIAL_PE_PIPE_CODE</b> <b>PE / / / / /</b> or <input type="radio"/> Unknown <b>PLASTIC_PE_UNKNOWN_IND</b></p>	
<p><input type="checkbox"/> Weld/Fusion, including heat-affected zone <input type="checkbox"/> <b>WELD_SUBTYPE</b></p> <p>Specify: <input type="radio"/> Pipe Girth Weld <input type="radio"/> Pipe Plastic Fusion <input type="radio"/> Other Butt Weld <input type="radio"/> Fillet Weld <b>WELD_DETAILS</b></p> <p>If Pipe Girth Weld is selected, complete items C3.a through h above.</p>	
<p>Are any of the C3b through h values different on either side of the girth weld? <input type="radio"/> Yes <input type="radio"/> No <b>DIFFERENT_GIRTH_WELD_IND</b></p> <p>If Yes, enter the different value(s) below:</p>	
<p><b>DIFF_GIRTH_WELD_WALL_THICKNESS</b></p> <p>C3l. Wall thickness (in): <b>/ . / / / /</b></p>	
<p>C3m. SMYS (Specified Minimum Yield Strength) of pipe (psi): <b>/ / / - / / / / / /</b></p>	
<p>C3n. Pipe specification: <b>DIFF_GIRTH_WELD_SPECIFICATION</b> OR <input type="radio"/> Unknown</p>	
<p><b>DIFF_GIRTH_WELD_SEAM_TYPE</b></p> <p>C3o. Pipe Seam <input type="checkbox"/> Specify: <input type="radio"/> Longitudinal ERW - High Frequency <input type="radio"/> Single SAW <input type="radio"/> Flash Welded  <input type="radio"/> Longitudinal ERW - Low Frequency <input type="radio"/> DSAW <input type="radio"/> Continuous Welded <input type="radio"/> Longitudinal ERW – Unknown Frequency  <input type="radio"/> Furnace Butt Welded <input type="radio"/> Spiral Welded <input type="radio"/> Lap Welded  <input type="radio"/> Seamless <input type="radio"/> Other, describe: <b>DIFF_GIRTH_WELD_SEAM_DETAIL</b></p>	
<p>C3p. Pipe manufacturer: <b>DIFF_GIRTH_WELD_MANUFACTURER</b> OR <input type="radio"/> Unknown</p>	
<p>C3q. Pipeline coating type at point of Accident <b>DIFF_GIRTH_WELD_COATING_TYPE</b></p> <p><input type="checkbox"/> Specify: <input type="radio"/> Fusion Bonded Epoxy (FBE) <input type="radio"/> Coal Tar <input type="radio"/> Asphalt <input type="radio"/> Polyolefin <input type="radio"/> Extruded Polyethylene  <input type="radio"/> Epoxy other than FBE <input type="radio"/> Cold Applied Tape <input type="radio"/> Paint <input type="radio"/> Composite <input type="radio"/> None <input type="radio"/> Other, describe: <b>DIFF_GIRTH_WELD_COATING_DETAIL</b></p>	
<p>C3r. Coating field applied? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown</p>	
<p>If Plastic Pipe Fusion is selected, complete items C3.a and c3.i through k above.</p>	

**VALVE\_TYPE**

- Valve, excluding Regulator/Control Valves**    **VALVE\_MAINLINE\_DETAILS**  
 Mainline  $\Rightarrow$  Specify:     Butterfly     Check     Gate     Plug     Ball     Globe     Other ITEM\_INVOLVED\_DETAILS  
**VALVE\_MAINLINE\_TYPE**    C3s. Mainline valve manufacturer: VALVE\_MANUFACTURER    OR     Unknown  
 Relief Valve  
 Auxiliary or Other Valve

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

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

- Cooler or Heater**, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.  
 **Repair Sleeve or Clamp**  
 **Hot Tap Equipment**  
 **Tap Fitting** (stoppable, thread-o-ring, weld-o-let, etc.)  
 **Flange Assembly, including Gaskets**  
 **ESD System**, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing.  
 **Drain Lines**  
 **Tubing, including Fittings**

C3t. Tubing material (select only one): **TUBING\_MATERIAL**

- Stainless steel  
 Carbon steel  
 Copper  
 Other

C3u. Type of tubing (select only one): **TUBING\_TYPE**

- Rigid  
 Flexible

**Instrumentation, including Programmable Logic Controllers and Controls**

**Underground Gas Storage or Cavern**

**Other** ITEM\_INVOLVED\_DETAILS

**INSTALLATION\_YEAR**

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

C5. Year item involved in Incident was manufactured: / / / / / OR  Unknown **MANUFACTURED\_YEAR**

C6. Type of release involved: (select only one) **RELEASE\_TYPE**

- PUNCTURE\_AXIAL**  $\Rightarrow$  Approx. size: / / / / /./in. (axial) by / / / / /./in. (circumferential)    **PUNCTURE\_CIRCUM**  
 Mechanical Puncture  $\Rightarrow$  Approx. size: / / / / /./in. (axial) by / / / / /./in. (circumferential)    **LEAK\_TYPE\_OTHER**  
 **LEAK\_TYPE**  
 Leak  $\Rightarrow$  Select Type:     Pinhole     Crack     Connection Failure     Seal or Packing     Other  
 **RUPTURE\_ORIENT**  
 Rupture  $\Rightarrow$  Select Orientation:     Circumferential     Longitudinal     Other    **RUPTURE\_DETAILS**  
**RUPTURE\_WIDTH**    Approx. size: / / / / /./in. (widest opening) by / / / / /./in. (length circumferentially or axially)

Other  $\Rightarrow$  \*Describe: RELEASE\_TYPE\_DETAILS

PART D – ADDITIONAL CONSEQUENCE INFORMATION	
D1. Class Location of Incident: (select only one) <b>CLASS_LOCATION_TYPE</b>	
<input type="checkbox"/> Class 1 Location <input type="checkbox"/> Class 2 Location <input type="checkbox"/> Class 3 Location <input type="checkbox"/> Class 4 Location	
<b>COULD_BE_HCA</b>	
D2. Did this Incident occur in a High Consequence Area (HCA)?	
<input type="checkbox"/> No <b>DETERMINATION_METHOD</b> <input checked="" type="checkbox"/> Yes ➔ D2.a Specify the Method used to identify the HCA: <input type="radio"/> Method 1(Class Location) <input type="radio"/> Method 2 (PIR)	
<b>PIR_RADIUS</b> <input type="text"/> feet_ <input type="radio"/> Not Flammable <b>NOT_FLAMMABLE_IND</b> <b>HEAT_DAMAGE_IND</b>	
D3. What is the PIR (Potential Impact Radius) for the location of this Incident? <input type="text"/> feet_ or <input type="radio"/> Not Flammable	
D4. Were any structures outside the PIR impacted or otherwise damaged by heat/fire resulting from the Incident? <input type="radio"/> Yes <input type="radio"/> No	
D5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident? <input type="radio"/> Yes <input type="radio"/> No	
D6. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? <b>HCA_FATALITIES_IND</b> <input type="radio"/> Yes <input type="radio"/> No	
If Yes, Describe the cause of the fatalities or injuries: <b>FATAL_INJURE_CAUSE</b>	
D13. If D2. Is No, answer D13a. <b>DID_OCCUR_IN_MCA_IND</b>	
D13a. Did this incident occur in a Moderate Consequence Area (MCA)? <input type="radio"/> Yes <input type="radio"/> No	
If D13a. is Yes, answer D13b.	
D13b. Select each of the items below that were present within the potential impact circle:	
<input type="radio"/> 5 or more buildings intended for human occupancy <b>MCA_BUILDING_HUMAN_OCCUPY_IND</b> <input type="radio"/> Paved surface for a designated interstate, freeway, expressway, or other principal 4-lane arterial roadway <b>MCA_PAVED_SURFACE_FREEWAY_IND</b>	
D7. Estimated Property Damage:	
D7a. Estimated cost of public and non-Operator private property damage      \$ <input type="text"/> <b>EST_COST_OPER_PAID</b>	
D7b. Estimated cost of Operator's property damage & repairs      \$ <input type="text"/> <b>EST_COST_PROP DAMAGE</b>	
D7c. Estimated cost of emergency response      \$ <input type="text"/> <b>EST_COST_EMERGENCY</b>	
D7d. Estimated other costs      \$ <input type="text"/> <b>EST_COST_OTHER</b>	
Describe: <b>EST_COST_OTHER_DETAILS</b>	
D7e. Total estimated property damage (sum of above)      \$ <i>calculated</i>	
Cost of Gas Released <b>GAS_COST_IN_MCF</b>	
Cost of Gas in \$ per thousand standard cubic feet (mcf): <b>EST_COST_UNINTENTIONAL_RELEASE</b>	
D7f. Estimated cost of gas released unintentionally      \$ <i>calculated</i>	
D7g. Estimated cost of gas released during intentional and controlled blowdown      \$ <i>calculated</i>	
D7h. Total estimated cost of gas released (sum of 7.f & 7.g above)      \$ <i>calculated</i>	
D7i. Estimated Total Cost (sum of D7e and D7h) <b>TOTAL_COST</b> \$ <i>calculated</i>	
<b>Injured Persons not included in A11</b> The number of persons injured, admitted to a hospital, and remaining in the hospital for at least one overnight are reported in A11. <b>If a person is included in A11, do not include them in D8.</b> <b>NUM_PERSONS_HOSP_NOT_OVNGHT</b>	
D8. Estimated number of persons with injuries requiring treatment in a medical facility but not requiring overnight in-patient hospitalization: <u>      </u>	
<b>If a person is included in D8, do not include them in D9.</b>	
D9. Estimated number of persons with injuries requiring treatment by EMTs at the site of incident: <b>NUM_INJURED_TREATED_BY_EMT</b>	
<b>Buildings Affected</b>	
D10. Number of residential buildings affected (evacuated or required repair or gas service interrupted): <b>NUM_RESIDENT_BUILDING_AFFCTD</b>	
D11. Number of business buildings affected (evacuated or required repair or gas service interrupted): <b>NUM_BUSINESS_BUILDING_AFFCTD</b>	
D12. Wildlife impact: <input type="radio"/> Yes <input type="radio"/> No	
D12a. If Yes, specify all that apply:	
<input type="checkbox"/> Fish/aquatic <b>FISH_AQUATIC_IMPACT_IND</b> <input type="checkbox"/> Birds <b>BIRDS_IMPACT_IND</b> <input type="checkbox"/> Terrestrial <b>TERRESTRIAL_IMPACT_IND</b>	

<b>PART E – ADDITIONAL OPERATING INFORMATION</b>	
E1. Estimated pressure at the point and time of the Incident (psig):	<b>ACCIDENT_PSIG</b> / / / / / / <b>GAS_FLOW_IN_PIPE_IN_MCF</b> / / / / / /
E1a. Estimated gas flow in pipe segment at the point and time of the incident (MSCF/D):	
E2. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig):	/ / / / / / <b>MOP_PSIG</b>
E2a. MAOP established by 49 CFR section: <b>MOP_CFR_SECTION</b>	
<input type="checkbox"/> 192.619 (a)(1) <input type="checkbox"/> 192. 619 (a)(2) <input type="checkbox"/> 192. 619 (a)(3) <input type="checkbox"/> 192.619 (a)(4) <input type="checkbox"/> 192. 619 (c) <input type="checkbox"/> 192.619 (d) <input type="checkbox"/> 192.624 (c)(1) <input type="checkbox"/> 192. 624(c)(2) <input type="checkbox"/> 192.624 (c)(3) <input type="checkbox"/> 192.624 (c)(4) <input type="checkbox"/> 192.624(c)(5) <input type="checkbox"/> 192.624 (c)(6) <input type="checkbox"/> Other   Specify Other: <u><b>MOP_CFR_SECTION_DETAILS</b></u>	
E2b. Date MAOP established:	<b>MAOP_ESTABLISHED_DATE</b> _____ / _____ / _____ Month   Day   Year
E2c. Was the MAOP in E2a and b established in conjunction with a reversal of flow direction?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Bi-Directional
E3. Describe the pressure on the system or facility relating to the Incident: (select only one)	<b>ACCIDENT_PRESSURE</b>
<input type="checkbox"/> Pressure did not exceed MAOP <input type="checkbox"/> Pressure exceeded MAOP, but did not exceed the applicable allowance in §192.201 <input type="checkbox"/> Pressure exceeded the applicable allowance in §192.201	
E4. Was the system or facility relating to the Incident operating under an “established pressure restriction” with pressure limits below those normally allowed by the MAOP?	<b>PRESSURE_RESTRICTION_IND</b>
<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> (Complete E4.a and E4.b below) <b>EXCEED_RESTRICTION_IND</b>	
E4a. Did the pressure exceed this “established pressure restriction?” <input type="radio"/> Yes <input type="radio"/> No <b>PHMSA_RESTRICTION_IND</b>	
E4b. Was this pressure restriction mandated by PHMSA or the State? <input type="radio"/> PHMSA <input type="radio"/> State <input type="radio"/> Not mandated <b>GAS_REQUIRED_ODORIZED_IND</b>	
E5. Was the gas at the point of failure required to be odorized in accordance with §192.625?	<input type="radio"/> Yes <input type="radio"/> No
If yes, Was the gas at the point of failure odorized in accordance with §192.625? <input type="radio"/> Yes <input type="radio"/> No <b>GAS_ODORIZED_IND</b>	
<b>If A14. is “Onshore Pipeline, Including Valve Sites” OR “Offshore Pipeline, Including Riser and Riser Bend”, answer E6 through E8.</b>	
E6. Length of segment between upstream and downstream shut-off valves closest to failure location (ft):	<b>LENGTH_SEGMENT_ISOLATED</b> / / / / / /
E7 Is the pipeline configured to accommodate internal inspection tools?	<b>INTERNAL_INSPECTION_IND</b>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Which physical features limit tool accommodation? (select all that apply)	
<b>DIAMETER_CHANGE_IND</b> <input type="radio"/> Changes in line pipe diameter <b>UNSUITABLE_MAINLINE_IND</b> <input type="radio"/> Presence of unsuitable mainline valves <b>TIGHT_MITERED_IND</b> <input type="radio"/> Tight or mitered pipe bends <b>OTHER_RESTRICTIONS_IND</b> <input type="radio"/> Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.) <b>EXTRA_THICK_WALL_IND</b> <input type="radio"/> Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools) <b>OTHER_INSPECTION_IND</b> <input type="radio"/> Other <input type="checkbox"/> Describe: <u><b>INTERNAL_INSPECTION_DETAILS</b></u>	
E8 For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?	<b>OPERATION_COMPLICATIONS_IND</b>
<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Which operational factors complicate execution? (select all that apply)	
<b>EXCESSIVE_DEBRIS_IND</b> <input type="radio"/> Excessive debris or scale, wax, or other wall build-up <b>LOW_OP_PRESSURE_IND</b> <input type="radio"/> Low operating pressure(s) <b>LOW_FLOW_IND</b> <input type="radio"/> Low flow or absence of flow <b>INCOMPAT_COMMOD_IND</b> <input type="radio"/> Incompatible commodity <b>OTHER_COMPLICATIONS_IND</b> <input type="radio"/> Other <input type="checkbox"/> Describe: <u><b>INSPECT_COMP_DETAILS</b></u>	
E9 Function of pipeline system: (select only one)	<b>PIPELINE_FUNCTION</b>
<input type="checkbox"/> Transmission System <input type="checkbox"/> Transmission Line of Distribution System <input type="checkbox"/> Type A Gathering <input type="checkbox"/> Type B Gathering <input type="checkbox"/> Type C Gathering <input type="checkbox"/> Offshore Gathering <input type="checkbox"/> Transmission in Storage Field	

E10 Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Incident?	
<input type="checkbox"/> No <b>SCADA_IN_PLACE_IND</b> <input type="checkbox"/> Yes ➔ E10.a Was it operating at the time of the Incident? <input type="radio"/> Yes <input type="radio"/> No <b>SCADA_OPERATING_IND</b> E10.b Was it fully functional at the time of the Incident? <input type="radio"/> Yes <input type="radio"/> No <b>SCADA_FUNCTIONAL_IND</b> E10.c Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume or pack calculations) assist with the initial indication of the Incident? <input type="radio"/> Yes <input type="radio"/> No <b>SCADA_DETECTION_IND</b> E10.d Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmed discovery of the Incident? <input type="radio"/> Yes <input type="radio"/> No <b>SCADA_CONF_IND</b>	
E11 Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Incident? (select only one) <b>INVESTIGATION_STATUS</b>	
<input type="checkbox"/> Yes, but the investigation of the control room and/or controller actions has not yet been completed by the operator <b>(Supplemental Report required)</b> <input type="checkbox"/> No, the facility was not monitored by a controller(s) at the time of the Incident <input type="checkbox"/> No, the operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: <i>(provide an explanation for why the operator did not investigate):</i> <b>INVESTIGATION_STATUS_DETAILS</b> <input type="checkbox"/> Yes, specify investigation result(s): (select all that apply)	
<input type="radio"/> Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue <b>INVEST_SCHEDULE_IND</b> <b>INVEST_NO_SCHEDULE_IND</b> <input type="radio"/> Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue <i>(provide an explanation for why not):</i> <b>INVEST_NO_SCHEDULE_IND_DETAILS</b> <input type="radio"/> Investigation identified no control room issues <b>INVEST_NO_CONTROL_ROOM_IND</b> <input type="radio"/> Investigation identified no controller issues <b>INVEST_NO_CONTROLLER_IND</b> <input type="radio"/> Investigation identified incorrect controller action or controller error <b>INVEST_INCORRECT_ACTION_IND</b> <input type="radio"/> Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response <b>INVEST_FATIGUE_IND</b> <input type="radio"/> Investigation identified incorrect procedures <b>INVEST_INCORRECT_PROCEDURE_IND</b> <input type="radio"/> Investigation identified incorrect control room equipment operation <b>INVEST_INCORRECT_CONTROL_IND</b> <input type="radio"/> Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response <b>INVEST_MAINT_IND</b> <b>INVEST_OTHER_IND</b> <b>INVEST_OTHER_IND_DETAILS</b> <input type="radio"/> Investigation identified areas other than those above ➔ Describe: _____	
<b>PART F – DRUG &amp; ALCOHOL TESTING INFORMATION</b>	
F1. As a result of this Incident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations? <b>EMPLOYEE_DRUG_TEST_IND</b>	
<input type="radio"/> No <input type="radio"/> Yes ➔ F1a. Specify how many were tested: <u>  /  /  </u> <b>NUM_EMPLOYEES_TESTED</b> F1b. Specify how many failed: <u>  /  /  </u> <b>NUM_EMPLOYEES_FAILED</b>	
F2. As a result of this Incident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations? <b>CONTRACTOR_DRUG_TEST_IND</b>	
<input type="radio"/> No <input type="radio"/> Yes ➔ F2a. Specify how many were tested: <u>  /  /  </u> <b>NUM_CONTRACTORS_TESTED</b> F2b. Specify how many failed: <u>  /  /  </u> <b>NUM_CONTRACTORS_FAILED</b>	

PART G – APPARENT CAUSE		Select only one box from PART G in the shaded column on the left representing the APPARENT Cause of the Incident, and answer the questions on the right. Enter secondary, contributing, or root causes of the Incident in Part K – Contributing Factors.
CAUSE	CAUSE DETAILS	
<b>G1 - Corrosion Failure</b> – only one sub-cause can be picked from shaded left-hand column <b>INTERNAL_EXTERNAL</b>		
<input type="checkbox"/> External Corrosion  <b>GALVANIC_CORROSION_IND</b> <b>ATMOSPHERE_CORROSION_IND</b> <b>STRAY_CURRENT_CORROSION_IND</b>	<p>1. Results of visual examination: <b>VISUAL_EXAM_RESULTS</b>  <input type="radio"/> Localized Pitting    <input type="radio"/> General Corrosion  <input type="radio"/> Other _____ <b>VISUAL_EXAM_DETAILS</b></p> <p>2. Type of corrosion: (select all that apply) <b>MICROBIOLOGICAL CORROSION_IND</b>  <input type="radio"/> Galvanic    <input type="radio"/> Atmospheric    <input type="radio"/> Stray Current    <input type="radio"/> Microbiological    <input type="radio"/> Selective Seam  <input type="radio"/> Other <b>OTHER_CORROSION_IND</b>    <b>CORROSION_TYPE_DETAILS</b></p> <p>2a. If 2 is Stray Current, specify <input type="radio"/> Alternating Current    <input type="radio"/> Direct Current    AND  2b. Describe the stray current source: _____ <b>STRAY_CURRENT_DETAILS</b></p> <p>3. The type(s) of corrosion selected in Question 2 is based on the following: (select all that apply)  <b>FIELD_EXAM_BASIS_IND</b>    <b>METALLURGICAL_BASIS_IND</b>  <input type="radio"/> Field examination    <input type="radio"/> Determined by metallurgical analysis  <input type="radio"/> Other <b>OTHER_BASIS_IND</b>    <b>CORROSION_BASIS_DETAILS</b></p> <p>4. Was the failed item buried or submerged? <b>UNDERGROUND_LOCATION</b>  <input type="radio"/> Yes <math>\Rightarrow</math> 4a. Was failed item considered to be under cathodic protection at the time of the incident? <b>UNDER_CATHODIC_PROTECTION_IND</b>  <input type="radio"/> Yes <math>\Rightarrow</math> Year protection started: / / / / /  <input type="radio"/> No    <b>CATHODIC_PRO_START_YEAR</b></p> <p>4b. Was shielding, tenting, or disbonding of coating evident at the point of the incident? <b>SHIELDING_EVIDENT</b>  <input type="radio"/> Yes    <input type="radio"/> No  <b>CATHODIC_SURVEY_TYPE</b>  4c. Has one or more Cathodic Protection Survey been conducted at the point of the incident? (select all that apply) <b>CP_ANNUAL_SURVEY_YEAR</b>  <b>CP_ANNUAL_SURVEY_IND</b> <input type="radio"/> Yes, CP Annual Survey <math>\Rightarrow</math> Most recent year conducted: / / / / /  <b>CLOSE_INTERVAL_SURVEY_IND</b> <input type="radio"/> Yes, Close Interval Survey <math>\Rightarrow</math> Most recent year conducted: / / / /  <b>OTHER_CP_SURVEY_IND</b> <input type="radio"/> Yes, Other CP Survey <math>\Rightarrow</math> Most recent year conducted:  Describe other CP survey <b>OTHER_CP_SURVEY_DETAILS</b>  <input type="radio"/> No</p> <p><b>EXTERNALLY_COATED</b>  <input type="radio"/> No <math>\Rightarrow</math> 4d. Was the failed item externally coated or painted? <input type="radio"/> Yes    <input type="radio"/> No</p> <p>5. Was there observable damage to the coating or paint in the vicinity of the corrosion?  <input type="radio"/> Yes    <input type="radio"/> No    <input type="radio"/> N/A Bare/Ineffectively Coated Pipe    <b>PRIOR_DAMAGE</b></p>	
<input type="checkbox"/> Internal Corrosion  <b>INT_CORROSIVE_COMMODITY_IND</b> <b>INT_WATER_ACID_IND</b> <b>INT_MICROBIOLOGICAL_IND</b>  <b>INT_LOW_POINT_PIPE_LOC_IND</b> <b>INT_ELBOW_LOC_IND</b> <b>INT_DROP_OUT_LOC_IND</b>	<p>6. Results of visual examination: <b>INT_VISUAL_EXAM_RESULTS</b>  <input type="radio"/> Localized Pitting    <input type="radio"/> General Corrosion    <input type="radio"/> Not cut open  <input type="radio"/> Other _____ <b>INT_VISUAL_EXAM_DETAILS</b></p> <p>7. Cause of corrosion: (select all that apply) <b>INT_EROSION_IND</b>  <input type="radio"/> Corrosive Commodity    <input type="radio"/> Water drop-out/Acid    <input type="radio"/> Microbiological    <input type="radio"/> Erosion  <input type="radio"/> Other <b>INT_OTHER_CORROSION_IND</b>    <b>INT_CORROSION_TYPE_DETAILS</b></p> <p>8. The cause(s) of corrosion selected in Question 7 is based on the following: (select all that apply)  <b>INT_FIELD_EXAM_BASIS_IND</b>    <b>INT_METALLURGICAL_BASIS_IND</b>  <input type="radio"/> Field examination    <input type="radio"/> Determined by metallurgical analysis  <input type="radio"/> Other <b>INT_OTHER_BASIS_IND</b>    <b>INT_CORROSION_BASIS_DETAILS</b></p> <p>9. Location of corrosion: (select all that apply) <b>INT_DEAD_LEG_LOC_IND</b>  <input type="radio"/> Low point in pipe    <input type="radio"/> Elbow    <input type="radio"/> Drop-out    <input type="radio"/> Dead-Leg  <input type="radio"/> Other <b>INT_OTHER_LOC_IND</b>    <b>CORROSION_LOCATION_DETAILS</b></p> <p><b>CORROSION_INHIBITORS</b>  10. Was the gas/fluid treated with corrosion inhibitors or biocides? <input type="radio"/> Yes    <input type="radio"/> No  <b>CORROSION LINING</b>  11. Was the interior coated or lined with protective coating? <input type="radio"/> Yes    <input type="radio"/> No  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    <b>CLEANING_DEWATERING</b></p> <p>13. Were corrosion coupons routinely utilized?  <input type="radio"/> Not applicable - Not mainline pipe    <input type="radio"/> Yes    <input type="radio"/> No    <b>CORROSION_COUPONS</b></p>	

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

**NATURAL\_FORCE\_TYPE**

<input type="checkbox"/> Earth Movement, NOT due to Heavy Rains/Floods	<b>EARTH SUBTYPE</b> 1. Specify: <input type="radio"/> Earthquake <input type="radio"/> Subsidence <input type="radio"/> Landslide <input type="radio"/> Other <b>NF_OTHER_DETAILS</b>
<input type="checkbox"/> Heavy Rains/Floods	<b>HEAVY RAINS SUBTYPE</b> 2. Specify: <input type="radio"/> Washout/Scouring <input type="radio"/> Flotation <input type="radio"/> Mudslide <input type="radio"/> Other <b>NF_OTHER_DETAILS</b>
<input type="checkbox"/> Lightning	<b>LIGHTNING SUBTYPE</b> 3. Specify: <input type="radio"/> Direct hit <input type="radio"/> Secondary impact such as resulting nearby fires
<input type="checkbox"/> Temperature	<b>TEMPERATURE SUBTYPE</b> 4. Specify: <input type="radio"/> Thermal Stress <input type="radio"/> Frost Heave <input type="radio"/> Frozen Components <input type="radio"/> Other <b>NF_OTHER_DETAILS</b>
<input type="checkbox"/> High Winds	
<input type="checkbox"/> Trees/Vegetation Roots	
<input type="checkbox"/> Snow/Ice impact or Accumulation	
<input type="checkbox"/> Other Natural Force Damage	5. Describe: <b>NF_OTHER_DETAILS</b>

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

- NF\_EXTREME\_WEATHER\_IND**
6. Were the natural forces causing the Incident generated in conjunction with an extreme weather event?  Yes  No  
**NF\_HURRICANE\_IND**, **NF\_TROPICAL\_STORM\_IND**, **NF\_TORNADO\_IND**
- 6a. If Yes, specify: (select all that apply)  Hurricane  Tropical Storm  Tornado  
 Other **NF\_OTHER\_IND** **NF\_EXTREME\_WEATHER\_DETAILS**

### G3 – Excavation Damage - only one sub-cause can be picked from shaded left-hand column

#### PARTY\_TYPE

<input type="checkbox"/> Excavation Damage by Operator (First Party)	
<input type="checkbox"/> Excavation Damage by Operator's Contractor (Second Party)	
<input type="checkbox"/> Excavation Damage by Third Party	
<input type="checkbox"/> Previous Damage due to Excavation Activity	

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

#### PRIOR\_NOTIFICATION\_IND

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

2. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)?  Yes  No NOTIFY\_CGA\_DIRT

3. Right-of-Way where event occurred: (select all that apply)

- PUBLIC\_ROW\_IND PUBLIC\_SUBTYPE  
 Public Specify:  City Street  State Highway  County Road  Interstate Highway  Other  
 PRIVATE\_ROW\_IND PRIVATE\_SUBTYPE  
 Private Specify:  Private Landowner  Private Business  Private Easement  
 Pipeline Property/Easement PIPELINE\_EASEMENT\_ROW\_IND  
 Power/Transmission Line POWER\_TRANSMISSION\_ROW\_IND  
 Railroad RAILROAD\_ROW\_IND  
 Dedicated Public Utility Easement PUBLIC\_UTIL\_EASEMENT\_ROW\_IND  
 Federal Land FEDERAL\_LAND\_ROW\_IND  
 Unknown/Other UNKNOWN\_ROW\_IND

#### JOINT\_TRENCH\_IND

- 4 Was the facility part of a Joint Trench?  Yes  No

#### CROSS\_BORE\_IND

5. Did this event involve a Cross Bore?  Yes  No

#### DEPTH\_OF\_GRADE

6. Measured Depth from Grade: (select only one)

- Embedded in Concrete/Asphalt Pavement  <18"  18"- 36"  
 >36"  Measured depth From Grade in inches: DEPTH\_OF\_GRADE\_DETAIL

#### EXCAVATOR\_TYPE

7. Type of excavator: (select only one)

- |                                  |                              |                                 |                                     |                                    |                                |
|----------------------------------|------------------------------|---------------------------------|-------------------------------------|------------------------------------|--------------------------------|
| <input type="radio"/> Contractor | <input type="radio"/> County | <input type="radio"/> Developer | <input type="radio"/> Farmer        | <input type="radio"/> Municipality | <input type="radio"/> Occupant |
| <input type="radio"/> Railroad   | <input type="radio"/> State  | <input type="radio"/> Utility   | <input type="radio"/> Unknown/Other |                                    |                                |

#### EXCAVATOR\_EQUIPMENT

8. Type of excavation equipment: (select only one)

- |                                      |  |  |                                     |  |
|--------------------------------------|--|--|-------------------------------------|--|
| <input type="radio"/> Auger          | <input type="radio"/> Backhoe/Trackhoe | <input type="radio"/> Boring           | <input type="radio"/> Drilling      | <input type="radio"/> Directional Drilling |
| <input type="radio"/> Explosives     | <input type="radio"/> Farm Equipment   | <input type="radio"/> Grader/Scraper   | <input type="radio"/> Hand Tools    | <input type="radio"/> Milling Equipment    |
| <input type="radio"/> Probing Device | <input type="radio"/> Trencher         | <input type="radio"/> Vacuum Equipment | <input type="radio"/> Unknown/Other |  |

#### WORK\_PERFORMED

9. Type of work performed: (select only one)

- |                                   |                                  |  |   |   |
|-----------------------------------|----------------------------------|--|---|---|
| <input type="radio"/> Agriculture | <input type="radio"/> Cable TV   | <input type="radio"/> Curb/Sidewalk            | <input type="radio"/> Building Construction | <input type="radio"/> Building Demolition |
| <input type="radio"/> Drainage    | <input type="radio"/> Driveway   | <input type="radio"/> Electric                 | <input type="radio"/> Engineering/Surveying | <input type="radio"/> Fencing             |
| <input type="radio"/> Grading     | <input type="radio"/> Irrigation | <input type="radio"/> Landscaping              | <input type="radio"/> Liquid Pipeline       | <input type="radio"/> Milling             |
| <input type="radio"/> Natural Gas | <input type="radio"/> Pole       | <input type="radio"/> Public Transit Authority | <input type="radio"/> Railroad Maintenance  | <input type="radio"/> Road Work           |



<b>G4 - Other Outside Force Damage</b> - only one sub-cause can be picked from shaded left-hand column	
<b>OUTSIDE_FORCE_TYPE</b>	
<input type="checkbox"/> Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident	
<input type="checkbox"/> Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation	<b>VEHICLE_SUBTYPE</b> 1. Vehicle/Equipment operated by: (select only one) <input type="radio"/> Operator <input type="radio"/> Operator's Contractor <input type="radio"/> Third Party If this sub-section is picked, please complete questions 5-11 below
<input type="checkbox"/> Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring	<b>OSF_HURRICANE_IND</b> <b>OSF_TROPICAL_STORM_IND</b> <b>OSF_TORNADO_IND</b> 2. Select one or more of the following IF an extreme weather event was a factor: <input type="radio"/> Hurricane <input type="radio"/> Tropical Storm <input type="radio"/> Tornado <input type="radio"/> Heavy Rains/Flood <input type="radio"/> Other <b>OSF_OTHER_WEATHER_IND</b> <b>OSF_HEAVY_RAINS_IND</b> <b>OSF_OTHER_WEATHER_DETAILS</b>
<input type="checkbox"/> Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation	
<input type="checkbox"/> Electrical Arcing from Other Equipment or Facility	
<input type="checkbox"/> Previous Mechanical Damage NOT Related to Excavation	
<input type="checkbox"/> Intentional Damage	3. Specify: <b>INTENTIONAL_SUBTYPE</b> <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 <b>INTENTIONAL_DETAILS</b>
<input type="checkbox"/> Other Outside Force Damage	4. Describe: <b>OSF_OTHER_DETAILS</b>
Complete the following if Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation sub-cause is selected. <b>DRIVER_ISSUED_CITATION_IND</b> 5. Was the driver of the vehicle or equipment issued one or more citations related to the incident? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown If 5 is Yes, what was the nature of the citations (select all that apply) 5a. Excessive Speed <b>CITATION_SPEED_IND</b> 5b. Reckless Driving <b>CITATION_RECKLESS_IND</b> 5c. Driving Under the Influence <b>CITATION_DUI_IND</b> 5d. Other, describe: <b>CITATION_OTHER_IND</b> , <b>CITATION_OTHER_DETAIL</b> <b>DRIVER_IN_CONTROL_IND</b> 6. Was the driver under control of the vehicle at the time of the collision? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown <b>ESTIMATED_SPEED_UNKNOWN_IND</b> 7. Estimated speed of the vehicle at the time of impact (miles per hour)? _____ or <input type="radio"/> Unknown <b>VEHICLE_TYPE</b> 8. Type of vehicle? (select only one) <input type="radio"/> Motorcycle/ATV <input type="radio"/> Passenger Car <input type="radio"/> Small Truck <input type="radio"/> Bus <input type="radio"/> Large Truck <b>VEHICLE_TRAVEL_FROM</b> 9. Where did the vehicle travel from to hit the pipeline facility? (select only one) <input type="radio"/> Roadway <input type="radio"/> Driveway <input type="radio"/> Parking Lot <input type="radio"/> Loading Dock <input type="radio"/> Off-Road 10. Shortest distance from answer in 9. to the damaged pipeline facility (in feet): . <b>VEHICLE_TRAVEL_DISTANCE_FT</b> 11. At the time of the Incident, were protections installed to protect the damaged pipeline facility from vehicular damage? <input type="radio"/> Yes <input type="radio"/> No <b>PROTECTIONS_INSTALLED_IND</b> If 11. is Yes, specify type of protection (select all that apply): 11a. Bollards/Guard Posts <b>PROTECTION_BOLLARDS_POST_IND</b> 11b. Barricades – include Jersey barriers and fences in instructions <b>PROTECTION_BARRICADES_IND</b> 11c. Guard Rails <b>PROTECTION_GUARD_RAILS_IND</b> 11d. Other, describe: <b>PROTECTION_OTHER_IND</b> <b>PROTECTION_OTHER_DETAIL</b>	

<b>G5 - Material Failure of Pipe or Weld</b>		Use this section to report material failures ONLY IF the "Item Involved in Incident" (from PART C, Question 3) is "Pipe" or "Weld."	
<b>PWF_FAILURE_TYPE</b>	Only one sub-cause can be picked from shaded left-hand column		
<p>1. The sub-cause selected below is based on the following: (select all that apply)</p> <p><b>FIELD_EXAM_IND</b>   <b>METALLURGICAL_IND</b>   <b>OTHER_ANALYSIS_IND</b>   <b>OTHER_ANALYSIS_DETAILS</b></p> <p><input type="checkbox"/> Field Examination   <input type="checkbox"/> Determined by Metallurgical Analysis   <input type="checkbox"/> Other Analysis _____</p> <p><input type="checkbox"/> Sub-cause is Tentative or Suspected; Still Under Investigation (Supplemental Report required)   <b>STILL_UNDER_INVEST_IND</b></p>			
<input type="checkbox"/> Design-, Construction-, Installation-, or Fabrication-related	<p>2. List contributing factors: (select all that apply)   <b>FAILURE_SUBTYPE</b></p> <p><input type="checkbox"/> Fatigue- or Vibration-related:   <b>FATIGUE_VIBR_RELATED</b></p> <p><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 <b>FATIGUE_VIBR_RELATED_OTHER</b></p> <p><input type="checkbox"/> Mechanical Stress   <b>MECHANICAL_STRESS</b></p> <p><input type="checkbox"/> Other <b>OTHER_FACTOR</b>   <b>OTHER_FACTOR_DETAILS</b></p>		
<input type="checkbox"/> Original Manufacturing-related (NOT girth weld or other welds formed in the field)	<p><b>STRESS_SUBTYPE</b></p> <p>3. Specify:</p> <p><input type="radio"/> Stress Corrosion Cracking   <input type="radio"/> Sulfide Stress Cracking  <input type="radio"/> Hydrogen Stress Cracking   <input type="radio"/> Hard Spot  <input type="radio"/> Other <b>STRESS_DETAILS</b></p>		
<input type="checkbox"/> Environmental Cracking-related			
<p><b>ADDITIONAL_DENT_IND</b>   <b>ADDITIONAL_GOUGE_IND</b>   <b>ADDITIONAL_PIPE_BEND_IND</b>   <b>ADDITIONAL_ARC_BURN_IND</b>  <b>ADDITIONAL_CRACK_IND</b>   <b>ADDITIONAL_LACK_FUSION_IND</b>   <b>ADDITIONAL_LAMINATION_IND</b>   <b>ADDITIONAL_BUCKLE_IND</b></p> <p>Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.</p> <p>4. Additional factors (select all that apply):   <b>PWF_ADDITIONAL_OTHER_IND</b></p> <p><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   <b>ADDITIONAL_BURNT_STEEL_IND</b>  <input type="radio"/> Other <b>PWF_ADDITIONAL_OTHER_IND</b>   <b>ADDITIONAL_OTHER_DETAILS</b></p> <p>5. Post-construction pressure test value (psig) / / / / / OR   <input type="radio"/> Unknown <b>POST_CONSTR_PRESSURE_TEST_VAL</b></p>			

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

<input type="checkbox"/> <b>Malfunction of Control/Relief Equipment</b>	CONTROL <b>VALVE_IND</b> <input type="radio"/> Control Valve <input type="radio"/> Instrumentation <b>INSTRUMENTATION_IND</b> COMMUNICATIONS_IND <input type="radio"/> Communications <b>BLOCK_VALVE_IND</b> <input type="radio"/> SCADA <b>SCADA_IND</b> RELIEF_VALVE_IND <input type="radio"/> Relief Valve <b>CHECK_VALVE_IND</b> <input type="radio"/> Block Valve PRESSURE_REGULATOR_IND <input type="radio"/> Pressure Regulator <b>POWER_FAILURE_IND</b> <input type="radio"/> Power Failure <b>STOPPLE_IND</b> OTHER CONTROL <b>RELIEF_IND</b> <input type="radio"/> Other <b>OTHER_CONTROL_RELIEF_DETAILS</b> <b>ESD_SYSTEM_FAILURE_IND</b>
<input type="checkbox"/> <b>Compressor or Compressor-related Equipment</b>	<b>OTHER_COMPRESSOR_IND</b> 2. Specify: <input type="radio"/> Seal/Packing Failure <input type="radio"/> Body Failure <input type="radio"/> Crack in Body <input type="radio"/> Appurtenance Failure <input type="radio"/> Pressure Vessel Failure <input type="radio"/> Other <b>OTHER_COMPRESSOR_DETAILS</b>
<input type="checkbox"/> <b>Threaded Connection/Coupling Failure</b>	<b>OTHER_STRIPPED_IND</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 <b>OTHER_STRIPPED_DETAILS</b>
<input type="checkbox"/> <b>Non-threaded Connection Failure</b>	<b>OTHER_NON_THREADED_IND</b> 4. Specify: <input type="radio"/> O-Ring <input type="radio"/> Gasket <input type="radio"/> Seal (NOT compressor seal) or Packing <input type="radio"/> Other <b>OTHER_NON_THREADED_DETAILS</b>
<input type="checkbox"/> <b>Defective or Loose Tubing or Fitting</b>	
<input type="checkbox"/> <b>Failure of Equipment Body (except Compressor), Vessel Plate, or other Material</b>	
<input type="checkbox"/> <b>Other Equipment Failure</b>	5. Describe: _____ <b>EQ_FAILURE_DETAILS</b> _____ _____

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      **ADDITIONAL\_VIBRATION\_IND**
- Overpressurization      **ADDITIONAL\_OVERPRESSURE\_IND**
- No support or loss of support      **ADDITIONAL\_SUPPORT\_IND**
- Manufacturing defect      **ADDITIONAL\_DEFECT\_IND**
- Loss of electricity      **ADDITIONAL\_ELECTRICITY\_IND**
- Improper installation      **ADDITIONAL\_INSTALLATION\_IND**
- Improper maintenance      **ADDITIONAL\_IMPROPER\_MNTNCE\_IND**
- Mismatched items (different manufacturer for tubing and tubing fittings)      **ADDITIONAL\_MISMATCH\_IND**
- Dissimilar metals      **ADDITIONAL\_DISSIMILAR\_IND**
- Breakdown of soft goods due to compatibility issues with transported gas/fluid      **ADDITIONAL\_BREAKDOWN\_IND**
- Valve vault or valve can contributed to the release      **ADDITIONAL\_VALVE\_IND**
- Alarm/status failure      **ADDITIONAL\_ALARM\_IND**
- Misalignment      **EQ\_ADDITIONAL\_MISALIGN\_IND**
- Thermal stress      **EQ\_ADDITIONAL\_THERMAL\_IND**
- Erosion/abnormal wear      **ADDITIONAL\_EROSION\_WEAR\_IND**
- Other      **EQ\_ADDITIONAL\_OTHER\_IND**      **EQ\_ADDITIONAL\_OTHER\_DETAILS**

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

**OPERATION\_TYPE**

<input type="checkbox"/> Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage	
<input type="checkbox"/> Underground Gas Storage, Pressure Vessel, or Cavern Allowed or Caused to Overpressure	<b>OVERFLOW_OTHER_IND</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 _____ <b>OVERFLOW_OTHER_DETAILS</b>
<input type="checkbox"/> Valve Left or Placed in Wrong Position, but NOT Resulting in an Overpressure	
<input type="checkbox"/> Pipeline or Equipment Overpressured	
<input type="checkbox"/> Equipment Not Installed Properly	
<input type="checkbox"/> Wrong Equipment Specified or Installed	
<input type="checkbox"/> Other Incorrect Operation	2. Describe: _____ <b>OPERATION_DETAILS</b>

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

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

- Inadequate procedure **RELATED\_INADEQUATE\_PROC\_IND**
- No procedure established **RELATED\_NO\_PROC\_IND**
- Failure to follow procedure **RELATED\_FAILURE\_FOLLOW\_IND**
- Other: **RELATED\_OTHER\_IND** **OPERATION RELATED DETAILS**

4. What category type was the activity that caused the Incident: **CATEGORY\_TYPE**

- Construction
- Commissioning
- Decommissioning
- Right-of-Way activities
- Routine maintenance
- Other maintenance
- Normal operating conditions
- Non-routine operating conditions (abnormal operations or emergencies) **OPERATOR\_QUALIFICATION\_IND**

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

5a. If Yes, were the individuals performing the task(s) qualified for the task(s)? **QUALIFIED\_INDIVIDUALS**

- Yes, they were qualified for the task(s)
- No, but they were performing the task(s) under the direction and observation of a qualified individual
- No, they were not qualified for the task(s) nor were they performing the task(s) under the direction and observation of a qualified individual

## G8 – Other Incident Cause - only one sub-cause can be picked from shaded left-hand column

**OTHER\_TYPE**

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

<b>PART J – INTEGRITY INSPECTIONS</b>	<p>Complete the following if the “Item Involved in Accident” (from PART C, Question 3) is Pipe or Weld and the “Cause” (from Part G) is:</p> <p style="margin-left: 20px;">Corrosion (any subCause in Part G1); or Previous Damage due to Excavation Activity (subCause in Part G3); or Previous Mechanical Damage NOT Related to Excavation (subCause in Part G4); or Material Failure of Pipe or Weld (any subCause in Part G5)</p>
<b>COLLECTED DATA IND</b>	
<p>J1. Have internal inspection tools collected data at the point of the Incident?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p> <p>J1a. If Yes, for each tool and technology used provide the information below for the most recent and previous tool runs:</p>	
<p><b>AXIAL_MAGNETIC_FLX_LKG_IND</b></p> <p><input type="radio"/> Axial Magnetic Flux Leakage</p> <p>Most recent run Year: <u>AXIAL_RECENT_YEAR</u>      <b>AXIAL_RCNT_PROPUL_METHOD</b></p> <p>Most recent run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered</p> <p>Most recent run Attuned to Detect (select only one): <input type="radio"/> Metal Loss <input type="radio"/> Hard Spots <input type="radio"/> Girth Weld Anomalies  <u>AXIAL_RCNT_ATTUNED_DETECT</u>      <input type="radio"/> Other Describe: <u>AXIAL_RCNT_ATND_DTCT_DTLS</u></p> <p>If Metal Loss, specify (select only one): <input type="radio"/> High Resolution <input type="radio"/> Standard Resolution <u>AXIAL_RCNT_ATND_DTCT_METAL</u>  <input type="radio"/> Other Describe: <u>AXIAL_RCNT_ATT_DT_METAL_DTLS</u></p> <p>Previous run Year: <u>AXIAL_PREVIOUS_YEAR</u>      <b>AXIAL_PREV_PROPUL_METHOD</b></p> <p>Previous run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered</p> <p>Previous run Attuned to Detect (select only one): <input type="radio"/> Metal Loss <input type="radio"/> Hard Spots <input type="radio"/> Girth Weld Anomalies  <input type="radio"/> Other Describe: <u>AXIAL_PREV_ATND_DTCT_DTLS</u></p> <p>If Metal Loss, specify (select only one): <input type="radio"/> High Resolution <input type="radio"/> Standard Resolution <u>AXIAL_PREV_ATND_DTCT_METAL</u>  <input type="radio"/> Other Describe: <u>AXIAL_PREV_ATT_DT_METAL_DTLS</u></p>	
<p><b>CIR_TRN_WAVE_MGN_FLX_LKG_IND</b></p> <p><input type="radio"/> Circumferential/Transverse Wave Magnetic Flux Leakage</p> <p>Most recent run Year: <u>CIRC_WAVE_RECENT_YEAR</u></p> <p>Most recent run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered <b>CIRC_WV_RCNT_PROPUL_METHOD</b></p> <p>Most recent run Resolution (select only one): <input type="radio"/> High Resolution <input type="radio"/> Standard Resolution <b>CIRC_WV_RCNT_RESOLUTION</b>  <input type="radio"/> Other Describe: <u>CIRC_WV_RCNT_RESOLUTION_DTLS</u></p> <p>Previous run Year: <u>CIRC_WV_PREVIOUS_YEAR</u></p> <p>Previous run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered <b>CIRC_WV_PREV_PROPUL_METHOD</b></p> <p>Previous run Resolution (select only one): <input type="radio"/> High Resolution <input type="radio"/> Standard Resolution <b>CIRC_WV_PREV_RESOLUTION</b>  <input type="radio"/> Other Describe: <u>CIRC_WV_PREV_RESOLUTION_DTLS</u></p>	
<p><b>ULTRASONIC_IND</b></p> <p><input type="radio"/> Ultrasonic</p> <p>Most recent run Year: <u>ULTRASONIC_RECENT_YEAR</u></p> <p>Most recent run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered <b>ULTRASONIC_RCNT_PROPUL_METHOD</b></p> <p>Most recent run Attuned to (select only one): <input type="radio"/> Wall Measurement <input type="radio"/> Crack <b>ULTRASONIC_RCNT_ATTUNED</b>  <input type="radio"/> Other Describe: <u>ULTRA_RCNT_ATTUNED_DTLS</u></p> <p>If Attuned to Wall Measurement, most recent run Metal Loss Resolution (select only one): <u>UTRA_RCNT_ATT_METL_RESOLUTION</u>  <input type="radio"/> Standard Resolution <input type="radio"/> Other Describe: <u>UTRA_RCNT_ATT_METL_RES_DTLS</u></p> <p>Previous run Year: <u>ULTR_PREVIOUS_YEAR</u></p> <p>Previous run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered <b>ULTRA_PREV_PROPUL_METHOD</b></p> <p>Most recent run Attuned to (select only one): <input type="radio"/> Wall Measurement <input type="radio"/> Crack <b>ULTRA_PREV_ATTUNED</b>  <input type="radio"/> Other Describe: <u>ULTRA_PREV_ATTUNED_DTLS</u></p> <p>If Attuned to Wall Measurement, most recent run Metal Loss Resolution (select only one): <u>UTRA_PREV_ATT_METL_RESOLUTION</u>  <input type="radio"/> Standard Resolution <input type="radio"/> Other Describe: <u>UTRA_PREV_ATT_METL_RES_DTLS</u></p>	
<p><b>GEOMETRY_DEFORMATION_IND</b></p> <p><input type="radio"/> Geometry/Deformation</p> <p>Most recent run Year: <u>GEOMETRY_RECENT_YEAR</u>      <b>GEOMETRY_RCNT_PROPUL_METHOD</b></p> <p>Most recent run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered</p> <p>Most recent run Resolution (select only one): <input type="radio"/> High Resolution <input type="radio"/> Standard Resolution <b>GEOMETRY_RCNT_RESOLUTION</b>  <input type="radio"/> Other Describe: <u>GEOMETRY_RCNT_RESOLUTION_DTLS</u></p> <p>Most recent run Measurement Cups (select only one): <input type="radio"/> Inside ILI Cups <input type="radio"/> No Cups <b>GEOMETRT_RCNT_MEASUR_CUPS</b></p> <p>Previous run Year: <u>GEOMETRY_PREVIOUS_YEAR</u>      <b>GEOMETRY_PREV_PROPUL_METHOD</b></p> <p>Previous run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered <b>GEOMETRY_PREV_RESOLUTION</b></p> <p>Previous run Resolution (select only one): <input type="radio"/> High Resolution <input type="radio"/> Standard Resolution  <input type="radio"/> Other Describe: <u>GEOMETRY_PREV_RESOLUTION_DTLS</u></p> <p>Previous run Measurement Cups (select only one): <input type="radio"/> Inside ILI Cups <input type="radio"/> No Cups <b>GEOMETRT_PREV_MEASUR_CUPS</b></p>	

<b>EMAT_IND</b>	
<input type="radio"/> Electromagnetic Acoustic Transducer (EMAT)	<b>EMAT_RECENT_YEAR</b>
Most recent run Year: _____	<b>EMAT_RCNT_PROPUL_METHOD</b>
Most recent run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered	
Previous run Year: <b>EMAT_PREVIOUS_YEAR</b>	<b>EMAT_PREV_PROPUL_METHOD</b>
Previous run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered	
<b>CPCM_IND</b>	
<input type="radio"/> Cathodic Protection Current Measurement (CPCM)	<b>CPCM_RECENT_YEAR</b>
Most recent run Year: _____	<b>CPCM_RCNT_PROPUL_METHOD</b>
Most recent run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered	
Previous run Year: <b>CPCM_PREVIOUS_YEAR</b>	<b>CPCM_PREV_PROPUL_METHOD</b>
Previous run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered	
<b>OTHER_TOOL_TECH_IND</b>	<b>OTHER_TOOL</b>
<input type="radio"/> Other, specify tool: _____	<b>OTHER_RECENT_YEAR</b>
Most recent run Year: _____	<b>OTHER_RCNT_PROPUL_METHOD</b>
Most recent run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered	
Previous run Year: <b>OTHER_PREVIOUS_YEAR</b>	<b>OTHER_PREV_PROPUL_METHOD</b>
Previous run Propulsion Method (select only one): <input type="radio"/> Free Swimming <input type="radio"/> Tethered	
<b>Answer J1b only when the cause is:</b>	
Previous Damage due to Excavation Activity (subCause in Part G3); or	
Previous Mechanical Damage NOT Related to Excavation (subCause in Part G4) <b>INSP_COMPL_BEFORE_DAMAGE_IND</b>	
J1b. 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	<b>HAS_HYDRTST_CONDUC_BEFORE_IND</b>
J2. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident? (initial post construction pressure test is NOT reported here)	<b>HYDRTST_MOST_RCNT_YEAR</b> <b>HYDRTST_MOST_RCNT_PRESSURE</b>
<input type="radio"/> Yes $\Rightarrow$ Most recent year tested: / / / / /	Test pressure (psig): / / / / /
<input type="radio"/> No	
<b>DIRECT_ASMT_CONDUCTED</b>	
J3. Has Direct Assessment been conducted on the pipeline segment?	<b>DIRECT_ASMT_AT_PNT_ACCDNT_YR</b>
<input type="radio"/> Yes, and an investigative dig was conducted at the point of the Accident $\Rightarrow$ Most recent year conducted: / / / / /	
<input type="radio"/> Yes, but the point of the Accident was not identified as a dig site $\Rightarrow$ Most recent year conducted: / / / / /	
<input type="radio"/> No	<b>DIRECT_ASMT_PNT_NOT_IDNFT_YR</b>
If Yes, J3a. For each type, indicate the year of the most recent assessment:	
External Corrosion Direct Assessment (ECDA)	/ / / / / <b>ASMNT_ECDA_RCNT_YEAR, ASMNT_ECDA_RCNT_IND</b>
Internal Corrosion Direct Assessment (ICDA)	/ / / / / <b>ASMNT_ICDA_RCNT_YEAR, ASMNT_ICDA_RCNT_IND</b>
Stress Corrosion Cracking Direct Assessment (SCCDA)	/ / / / / <b>ASMNT_SCCDA_RCNT_YEAR, ASMNT_SCCDA_RCNT_IND</b>
Confirmatory Direct Assessment	/ / / / / <b>ASMNT_CONFIRMATORY_RCNT_YEAR, ASMNT_CONFIRMATORY_RCNT_IND</b>
Other, specify type: <b>ASMNT_OTHER_TYPE</b>	/ / / / / <b>ASMNT_OTHER_RCNT_YEAR, ASMNT_OTHER_RCNT_IND</b>
J4. Has one or more non-destructive examination been conducted prior to the Incident at the point of the Incident since January 1, 2002?	
<input type="radio"/> Yes <input type="radio"/> No	<b>NON_DESTRUCTIVE_EXAM_IND</b>
J4a. If Yes, for each examination conducted, select type of non-destructive examination and indicate most recent year the examination was conducted:	
<input type="radio"/> Radiography	/ / / / / <b>EXM_RADIOGRAPHY_RCNT_YEAR, EXM_RADIOGRAPHY_RCNT_IND</b>
<input type="radio"/> Guided Wave Ultrasonic	/ / / / / <b>EXM_WAVE_ULTRASONIC_RCNT_YEAR, EXM_WAVE_ULTRASONIC_RCNT_IND</b>
<input type="radio"/> Handheld Ultrasonic Tool	/ / / / / <b>EXM_HANDL_ULTRASONIC_RCNT_YEAR, EXM_HANDL_ULTRASONIC_RCNT_IND</b>
<input type="radio"/> Wet Magnetic Particle Test	/ / / / / <b>EXM_WET_MGNT_PARTCL_RCNT_YEAR, EXM_WET_MGNT_PARTCL_RCNT_IND</b>
<input type="radio"/> Dry Magnetic Particle Test	/ / / / / <b>EXM_DRY_MGNT_PARTCL_RCNT_YEAR, EXM_DRY_MGNT_PARTCL_RCNT_IND</b>
<input type="radio"/> Other, specify type <b>EXM_OTHER_TYPE</b>	/ / / / / <b>EXM_OTHER_RCNT_YEAR, EXM_OTHER_RCNT_IND</b>

## PART K – CONTRIBUTING FACTORS

The Apparent Cause of the accident is contained in Part G. Do not report the Apparent Cause again in this Part K. If Contributing Factors were identified, select all that apply below and explain each in the Narrative:

<p><b>External Corrosion</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> External Corrosion, Galvanic <b>EXTRNL_COR_GALVANIC_IND</b></li> <li><input type="checkbox"/> External Corrosion, Atmospheric <b>EXTRNL_COR_ATMOSPHERIC_IND</b></li> <li><input type="checkbox"/> External Corrosion, Stray Current Induced <b>EXTRNL_COR_STRAJ_CURRENT_IND</b></li> <li><input type="checkbox"/> External Corrosion, Microbiologically Induced <b>EXTRNL_COR_MICROBIOLOGIC_IND</b></li> <li><input type="checkbox"/> External Corrosion, Selective Seam <b>EXTRNL_COR_SELECTIVE_SEAM_IND</b></li> </ul>	<p><b>Pipe/Weld Failure</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Design-related <b>PWF DESIGN_IND</b></li> <li><input type="checkbox"/> Construction-related <b>PWF CONSTRUCTION_IND</b></li> <li><input type="checkbox"/> Installation-related <b>PWF INSTALLATION_IND</b></li> <li><input type="checkbox"/> Fabrication-related <b>PWF FABRICATION_IND</b></li> <li><input type="checkbox"/> Original Manufacturing-related <b>PWF ENV STRESS CORROSION_IND</b></li> <li><input type="checkbox"/> Environmental Cracking-related, Stress Corrosion Cracking <b>PWF ENV SULFIDE STRESS_IND</b></li> <li><input type="checkbox"/> Environmental Cracking-related, Sulfide Stress Cracking <b>PWF ENV HYDROGEN STRESS_IND</b></li> <li><input type="checkbox"/> Environmental Cracking-related, Hydrogen Stress Cracking <b>PWF ENV HARD_SPOT_IND</b></li> <li><input type="checkbox"/> Environmental Cracking-related, Hard Spot</li> </ul>
<p><b>Internal Corrosion</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Internal Corrosion, Corrosive Commodity <b>INTRNL_COR_WTR_DRPOUT_ACID_IND</b></li> <li><input type="checkbox"/> Internal Corrosion, Water drop-out/Acid <b>INTRNL_COR_MICROBIOLOGIC_IND</b></li> <li><input type="checkbox"/> Internal Corrosion, Microbiological</li> <li><input type="checkbox"/> Internal Corrosion, Erosion <b>INTRNL_COR_EROSION_IND</b></li> </ul>	
<p><b>Natural Forces</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Earth Movement, NOT due to Heavy Rains/Floods</li> <li><input type="checkbox"/> Heavy Rains/Floods <b>NF_HEAVY_RAINS_IND</b></li> <li><input type="checkbox"/> Lightning <b>NF_LIGHTNING_IND</b></li> <li><input type="checkbox"/> Temperature <b>NF_TEMPERATURE_IND</b></li> <li><input type="checkbox"/> High Winds <b>NF_HIGH_WINDS_IND</b></li> <li><input type="checkbox"/> Tree/Vegetation Root <b>NF_VEGITATION_ROOT_IND</b></li> </ul>	
<p><b>Excavation Damage</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Excavation Damage by Operator (First Party) <b>EXCVTN_DMG_OPERATOR_IND</b></li> <li><input type="checkbox"/> Excavation Damage by Operator's Contractor (Second Party) <b>EXCVTN_DMG_OP_CONTRACTOR_IND</b></li> <li><input type="checkbox"/> Excavation Damage by Third Party <b>EXCVTN_DMG_THIRD_PARTY_IND</b></li> <li><input type="checkbox"/> Previous Damage due to Excavation Activity <b>EXCVTN_DMG_PREVIOUS_DAMAGE_IND</b></li> </ul>	
<p><b>Other Outside Force</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Nearby Industrial, Man-made, or Other Fire/Explosion <b>OSF_NEARBY_INDUSTRAL_IND</b></li> <li><input type="checkbox"/> Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation <b>OSF_VEHICLE_IND</b></li> <li><input type="checkbox"/> Damage by Boats, Barges, Drilling Rigs, or Other Adrift Maritime Equipment <b>OSF_BOAT_IND</b></li> <li><input type="checkbox"/> Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation <b>OSF_OTHER_MARITIME_IND</b></li> <li><input type="checkbox"/> Electrical Arcing from Other Equipment or Facility <b>OSF_ELECTRICAL_ARCING_IND</b></li> <li><input type="checkbox"/> Previous Mechanical Damage NOT Related to Excavation <b>OSF_PREVIOUS_MECHANICAL_IND</b></li> <li><input type="checkbox"/> Intentional Damage <b>OSF_INTENTIONAL_IND</b></li> <li><input type="checkbox"/> Other underground facilities buried within 12 inches of the failure location <b>OSF_OTHER_UNDERGROUND_IND</b></li> </ul>	<p><b>Equipment Failure</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Malfunction of Control/Relief Equipment <b>EQF_CONTROL_RELEASEAF_IND</b></li> <li><input type="checkbox"/> Compressor or Compressor-related Equipment <b>EQF_COMPRESSOR_IND</b></li> <li><input type="checkbox"/> Threaded Connection/Coupling Failure <b>EOF_THREADED_COUPLING_IND</b></li> <li><input type="checkbox"/> Non-threaded Connection Failure <b>EOF_NON_THREADED_IND</b></li> <li><input type="checkbox"/> Defective or Loose Tubing or Fitting <b>EOF_DEFECTIVE_FITTING_IND</b></li> <li><input type="checkbox"/> Failure of Equipment Body (except Compressor), Vessel Plate, or other Material <b>EQF_EQUIPMENT_BODY_IND</b></li> </ul>
<p><b>Incorrect Operation</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Damage by Operator or Operator's Contractor NOT Excavation and NOT Vehicle/Equipment Damage <b>IO_DAMAGE_BY_OPERATOR_IND</b></li> <li><input type="checkbox"/> Valve Left or Placed in Wrong Position, but NOT Resulting in Overpressure <b>IO_VALVE_POSITION_IND</b></li> <li><input type="checkbox"/> Pipeline or Equipment Overpressured <b>IO_EQUIPMENT_OVERPRESSURE_IND</b></li> <li><input type="checkbox"/> Equipment Not Installed Properly <b>IO_NOT_INSTALLED_PROPERLY_IND</b></li> <li><input type="checkbox"/> Wrong Equipment Specified or Installed <b>IO_WRONG_EQUIPMENT_IND</b></li> <li><input type="checkbox"/> Inadequate Procedure <b>IO_INADEQUATE_PROCEDURE_IND</b></li> <li><input type="checkbox"/> No procedure established <b>IO_NO_PROCEDURE_IND</b></li> <li><input type="checkbox"/> Failure to follow procedures <b>IO_FOLLOW_PROCEDURE_IND</b></li> </ul>	



**Note:** Field names not on the form are as following:

Field Name	Field Name Description
DATAFILE_AS_OF	<i>Data as of date</i>
SIGNIFICANT	<i>Identify if record meets the significant criteria or not: If there was fatality, injury, fire, explosion, total property damage \$50K or more in 1984 dollars then SIGNIFICANT='YES', else SIGNIFICANT='NO'.</i>
IYEAR	<i>Year accident occurred, derived from accident date</i>
EST_COST_OPER_PAID_CURRENT	<i>Converted Property Damage to Current Year dollars</i>
EST_COST_INTENT_REL_CURRENT	<i>Converted Property Damage to Current Year dollars</i>
EST_COST_UNINTENT_REL_CURRENT	<i>Converted Property Damage to Current Year dollars</i>
EST_COST_PROP_DAMAGE_CURRENT	<i>Converted Property Damage to Current Year dollars</i>
EST_COST_EMERGENCY_CURRENT	<i>Converted Property Damage to Current Year dollars</i>
EST_COST_OTHER_CURRENT	<i>Converted Property Damage to Current Year dollars</i>
TOTAL_COST_IN84	<i>Converted Property Damage to 1984 dollars</i>
TOTAL_COST_CURRENT	<i>Converted Property Damage to Current Year dollars</i>
SERIOUS	<i>Identify if record meets the SERIOUS criteria or not: If there was fatality or injury then SERIOUS = 'YES' else SERIOUS = 'NO'.</i>
SYSTEM_TYPE	<i>System Type = 'UNGS (Underground Natural Gas Storage)' when Part A14 (SYSTEM_PART_INVOLVED) = 'Belowground Storage, Including Associated Equipment and Piping' and incident date is 01/01/2017 or later. For remaining reports, System Type = 'GT (Gas Transmission)' when Part E9 (PIPELINE_FUNCTION) = Transmission System, Transmission Line of Distribution System, or Transmission in Storage Field. For remaining reports, System Type = 'GG (Gas Gathering)'</i>
MAP_SEVEN_CAUSE	<i>Cause by PHMSA for 20 year incident trending</i>
MAP_SEVEN_SUBCAUSE	<i>SubCause by PHMSA for 20 year incident trending</i>
MAP_EIGHT_CAUSE	<i>Cause by PHMSA for 20 year incident trending</i>
MAP_EIGHT_SUBCAUSE	<i>SubCause by PHMSA for 20 year incident trending</i>