NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $1,000,000 as provided in 49 USC 60122.

OMB NO: 2137-0047

EXPIRATION DATE: 01/31/2013

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

ACCIDENT REPORT – HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date _____

No. _____
(DOT Use Only)

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0047. Public reporting for this collection of information is estimated to be approximately 10 hours per response (5 hours for a small release), including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

INSTRUCTIONS

Important: *Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at http://www.phmsa.dot.gov/pipeline. Note: Certain low consequence accidents only require the information indicated in the shaded fields.*

PART A – KEY REPORT INFORMATION

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

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

*2. Name of Operator: _____

*3. Address of Operator:

*3.a _____
(Street Address)

*3.b _____
(City)

*3.c State: /___/___/

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

*4. Local time *(24-hr clock)* and date of the Accident:

/___/___/___/___/ Hour /___/___/ Month /___/___/ Day /___/___/ Year

*5. Location of Accident:

Latitude: /___/___/ . /___/___/___/___/___/

Longitude: - /___/___/___/ . /___/___/___/___/___/

6. National Response Center Report Number (if applicable):

/___/___/___/___/___/___/___/

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

/___/___/___/___/ Hour /___/___/ Month /___/___/ Day /___/___/ Year

*8. Commodity released: *(select only one, based on predominant volume released)*

☐ Crude Oil

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

- ○ Gasoline (non-Ethanol)
- ○ Diesel, Fuel Oil, Kerosene, Jet Fuel
- ○ Mixture of Refined Products (transmix or other mixture)
- ○ Other ⇨ Name: _____

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

- ○ Anhydrous Ammonia
- ○ LPG (Liquefied Petroleum Gas) / NGL (Natural Gas Liquid)
- ○ Other HVL ⇨ Name: _____

☐ CO_2 (Carbon Dioxide)

☐ Biofuel / Alternative Fuel (including ethanol blends)

- ○ Fuel Grade Ethanol
- ○ Ethanol Blend ⇨ % Ethanol: /___/___/
- ○ Biodiesel ⇨ Blend (e.g. B2, B20, B100): B/___/___/___/
- ○ Other ⇨ Name: _____

*9. Estimated volume of commodity released unintentionally: /___/___/___/,/___/___/___/./___/___/ Barrels

10. Estimated volume of intentional and/or controlled release/blowdown: /___/___/___/,/___/___/___/./___/___/ Barrels

*11. Estimated volume of commodity recovered: /___/___/___/,/___/___/___/./___/___/ Barrels

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*12. Were there fatalities? ○ Yes ○ No

If Yes, specify the number in each category:

*12.a Operator employees /___/___/___/___/

*12.b Contractor employees working for the Operator /___/___/___/___/

*12.c Non-Operator emergency responders /___/___/___/___/

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

*12.e General public /___/___/___/___/

12.f Total fatalities (sum of above) /___/___/___/___/

*13. Were there injuries requiring inpatient hospitalization? ○ Yes ○ No

If Yes, specify the number in each category:

*13.a Operator employees /___/___/___/___/

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

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

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

*13.e General public /___/___/___/___/

13.f Total injuries (sum of above) /___/___/___/___/

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

○ Yes ○ No ⇨ Explain: _____

If Yes, complete Questions 14.a and 14.b: *(use local time, 24-hr clock)*

14.a Local time and date of shutdown /___/___/___/___/ (Hour) /___/___/ (Month) /___/___/ (Day) /___/___/ (Year)

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

*15. Did the commodity ignite? ○ Yes ○ No

*16. Did the commodity explode? ○ Yes ○ No

17. Number of general public evacuated: /___/___/___/,/___/___/___/

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

18.a Local time Operator identified Accident /___/___/___/___/ (Hour) /___/___/ (Month) /___/___/ (Day) /___/___/ (Year)

18.b Local time Operator resources arrived on site /___/___/___/___/ (Hour) /___/___/ (Month) /___/___/ (Day) /___/___/ (Year)

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PART B – ADDITIONAL LOCATION INFORMATION

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

If **Onshore**:

*2. State: /___/___/

*3. Zip Code: /___/___/___/___/___/ - /___/___/___/___/

4._____ 5_____
City County or Parish

6. Operator-designated location: *(select only one)*
☐ Milepost/Valve Station *(specify in shaded area below)*
☐ Survey Station No. *(specify in shaded area below)*

/___/___/___/___/___/___/___/___/___/___/___/___/___/___/___/

7. Pipeline/Facility name: _____

8. Segment name/ID: _____

*9. Was Accident on Federal land, other than the Outer Continental Shelf (OCS)? ○ Yes ○ No

*10. Location of Accident: *(select only one)*
☐ Totally contained on Operator-controlled property
☐ Originated on Operator-controlled property, but then flowed or migrated off the property
☐ Pipeline right-of-way

*11. Area of Accident (as found): *(select only one)*
☐ Tank, including attached appurtenances
☐ Underground ⇨ Specify: ○ Under soil
○ Under a building ○ Under pavement
○ Exposed due to excavation
○ In underground enclosed space (e.g., vault)
○ Other _____
Depth-of-Cover (in): /___/,/___/___/___/
☐ Aboveground ⇨ Specify:
○ Typical aboveground facility piping or appurtenance
○ Overhead crossing
○ In or spanning an open ditch
○ Inside a building ○ Inside other enclosed space
○ Other _____
☐ Transition Area ⇨ Specify: ○ Soil/air interface ○ Wall sleeve ○ Pipe support or other close contact area
○ Other _____

*12. Did Accident occur in a crossing?: ○ Yes ○ No
If Yes, specify type below:
☐ Bridge crossing ⇨ Specify: ○ Cased ○ Uncased
☐ Railroad crossing ⇨ *(select all that apply)*
○ Cased ○ Uncased ○ Bored/drilled
☐ Road crossing ⇨ *(select all that apply)*
○ Cased ○ Uncased ○ Bored/drilled
☐ Water crossing
⇨ Specify: ○ Cased ○ Uncased
Name of body of water, if commonly known:
_____
Approx. water depth (ft) at the point of the Accident:
/___/,/___/___/___/
(select only one of the following)
○ Shoreline/Bank crossing
○ Below water, pipe in bored/drilled crossing
○ Below water, pipe buried below bottom (NOT in bored/drilled crossing)
○ Below water, pipe on or above bottom

If **Offshore**:

*13. Approximate water depth (ft.) at the point of the Accident:
/___/___/,/___/___/___/

*14. Origin of Accident:
☐ In State waters
⇨ Specify: State: /___/___/
Area: _____
Block/Tract #: /___/___/___/___/
Nearest County/Parish: _____
☐ On the Outer Continental Shelf (OCS)
⇨ Specify: Area: _____
Block #: /___/___/___/___/

*15. Area of Accident: *(select only one)*
☐ Shoreline/Bank crossing or shore approach
☐ Below water, pipe buried or jetted below seabed
☐ Below water, pipe on or above seabed
☐ Splash Zone of riser
☐ Portion of riser outside of Splash Zone, including riser bend
☐ Platform

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PART C – ADDITIONAL FACILITY INFORMATION

*1. Is the pipeline or facility:
- ☐ Interstate
- ☐ Intrastate

*2. Part of system involved in Accident: *(select only one)*
- ☐ Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances ⇨ ○ Atmospheric or Low Pressure ○ Pressurized
- ☐ Onshore Terminal/Tank Farm Equipment and Piping
- ☐ Onshore Equipment and Piping Associated with Belowground Storage
- ☐ Onshore Pump/Meter Station Equipment and Piping
- ☐ Onshore Pipeline, Including Valve Sites
- ☐ Offshore Platform/Deepwater Port, Including Platform-mounted Equipment and Piping
- ☐ Offshore Pipeline, Including Riser and Riser Bend

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

☐ Pipe ⇨ Specify: ○ Pipe Body ○ Pipe Seam

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

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

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

3.d Pipe specification: _____

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

3.f Pipe manufacturer: _____

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

3.h Pipeline coating type at point of Accident
⇨ Specify: ○ Fusion Bonded Epoxy ○ Coal Tar ○ Asphalt ○ Polyolefin
○ Extruded Polyethylene ○ Field Applied Epoxy ○ Cold Applied Tape ○ Paint
○ Composite ○ None ○ Other _____

☐ Weld, including heat-affected zone ⇨ Specify: ○ Pipe Girth Weld ○ Other Butt Weld ○ Fillet Weld ○ Other_____

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

3.i Mainline valve manufacturer: _____

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

○ Relief Valve
○ Auxiliary or Other Valve

☐ Pump
☐ Meter/Prover
☐ Scraper/Pig Trap
☐ Sump/Separator
☐ Repair Sleeve or Clamp
☐ Hot Tap Equipment
☐ Stopple Fitting
☐ Flange
☐ Relief Line
☐ Auxiliary Piping (e.g. drain lines)
☐ Tubing
☐ Instrumentation

☐ Tank/Vessel ⇨ Specify: ○ Single Bottom System ○ Double Bottom System ○ Tank Shell ○ Chime
○ Roof/Roof Seal ○ Roof Drain System ○ Mixer ○ Pressure Vessel Head or Wall
○ Appurtenance ○ Other _____

☐ Other _____

4. Year item involved in Accident was installed: /___/___/___/___/

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

☐ Carbon Steel

☐ Material other than Carbon Steel ⇨ Specify: _____

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

☐ Mechanical Puncture ⇨ Approx. size: /__/__/__/__/./__/in. (axial) by /__/__/__/__/./__/in. (circumferential)

☐ Leak ⇨ Select Type: ○ Pinhole ○ Crack ○ Connection Failure ○ Seal or Packing ○ Other

☐ Rupture ⇨ Select Orientation: ○ Circumferential ○ Longitudinal ○ Other _____

Approx. size: /__/__/__/__/./__/ in. (widest opening) by /__/__/__/__/__/./__/in. (length circumferentially or axially)

☐ Overfill or Overflow

☐ Other ⇨ Describe: _____

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PART D – ADDITIONAL CONSEQUENCE INFORMATION

1. Wildlife impact: ○ Yes ○ No

   1.a If Yes, specify all that apply:

   ☐ Fish/aquatic

   ☐ Birds

   ☐ Terrestrial

*2. Soil contamination: ○ Yes ○ No

3. Long term impact assessment performed or planned: ○ Yes ○ No

4. Anticipated remediation: ○ Yes ○ No (not needed)

   4.a If Yes, specify all that apply:

   ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

*5. Water contamination: ○ Yes ⇨ *(Complete 5.a – 5.c below)* ○ No

   *5.a Specify all that apply:

   ☐ Ocean/Seawater

   ☐ Surface

   ☐ Groundwater

   ☐ Drinking water ⇨ *(Select one or both)* ○ Private Well ○ Public Water Intake

   *5.b Estimated amount released in or reaching water: /___/___/___/,/___/___/___/./___/___/ Barrels

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

*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? ○ Yes ○ No

*7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)? ○ Yes ○ No

   7.a If Yes, specify HCA type(s): *(select all that apply)*

   ☐ Commercially Navigable Waterway
   Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
   ○ Yes ○ No

   ☐ High Population Area
   Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
   ○ Yes ○ No

   ☐ Other Populated Area
   Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
   ○ Yes ○ No

   ☐ Unusually Sensitive Area (USA) – Drinking Water
   Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
   ○ Yes ○ No

   ☐ Unusually Sensitive Area (USA) – Ecological
   Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
   ○ Yes ○ No

*8. Estimated cost to Operator:

8.a Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator	$ /___/___/___/,/___/___/___/,/___/___/___/
8.b Estimated cost of commodity lost	$ /___/___/___/,/___/___/___/,/___/___/___/
8.c Estimated cost of Operator's property damage & repairs	$ /___/___/___/,/___/___/___/,/___/___/___/
8.d Estimated cost of Operator's emergency response	$ /___/___/___/,/___/___/___/,/___/___/___/
8.e Estimated cost of Operator's environmental remediation	$ /___/___/___/,/___/___/___/,/___/___/___/
8.f Estimated other costs	$ /___/___/___/,/___/___/___/,/___/___/___/
Describe _____	
8.g Estimated total costs (sum of above)	$ /___/___/___/,/___/___/___/,/___/___/___/

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PART E – ADDITIONAL OPERATING INFORMATION

*1. Estimated pressure at the point and time of the Accident (psig): /___/___/,/___/___/___/

*2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig) : /___/___/,/___/___/___/

*3. Describe the pressure on the system or facility relating to the Accident: *(select only one)*

- ☐ Pressure did not exceed MOP
- ☐ Pressure exceeded MOP, but did not exceed 110% of MOP
- ☐ Pressure exceeded 110% of MOP

*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?

- ☐ No
- ☐ Yes ⇨ (*Complete 4.a and 4.b below)*

*4.a Did the pressure exceed this established pressure restriction? ○ Yes ○ No

*4.b Was this pressure restriction mandated by PHMSA or the State? ○ PHMSA ○ State ○ Not mandated

*5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?

- ☐ No
- ☐ Yes ⇨ (*Complete 5.a – 5.f below)*

5.a Type of upstream valve used to initially isolate release source: ○ Manual ○ Automatic ○ Remotely Controlled

5.b Type of downstream valve used to initially isolate release source: ○ Manual ○ Automatic ○ Remotely Controlled ○ Check Valve

5.c Length of segment initially isolated between valves (ft): /___/___/___/,/___/___/___/

5.d Is the pipeline configured to accommodate internal inspection tools?

- ☐ Yes
- ☐ No ⇨ Which physical features limit tool accommodation? *(select all that apply)*
  - ○ Changes in line pipe diameter
  - ○ Presence of unsuitable mainline valves
  - ○ Tight or mitered pipe bends
  - ○ Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.)
  - ○ Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)
  - ○ Other ⇨ Describe:_____

5.e For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?

- ☐ No
- ☐ Yes ⇨ Which operational factors complicate execution? *(select all that apply)*
  - ○ Excessive debris or scale, wax, or other wall build-up
  - ○ Low operating pressure(s)
  - ○ Low flow or absence of flow
  - ○ Incompatible commodity
  - ○ Other ⇨ Describe:_____

5.f Function of pipeline system: *(select only one)*

- ☐ > 20% SMYS Regulated Trunkline/Transmission
- ☐ ≤ 20% SMYS Regulated Trunkline/Transmission
- ☐ ≤ 20% SMYS "Unregulated" Trunkline/Transmission
- ☐ > 20% SMYS Regulated Gathering
- ☐ ≤ 20% SMYS Regulated Gathering
- ☐ ≤ 20% SMYS "Unregulated" Gathering

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*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

☐ Air Patrol

☐ Notification from Public

☐ Notification from Third Party that caused the Accident

☐ Local Operating Personnel, including contractors

☐ Ground Patrol by Operator or its contractor

☐ Notification from Emergency Responder

☐ 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: _____

_____

_____

_____

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PART F – DRUG & ALCOHOL TESTING INFORMATION	

*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 & Alcohol Testing regulations?

○ No

○ Yes ⇨ *1.a Specify how many were tested: /___/___/

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

*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 & Alcohol Testing regulations?

○ No

○ Yes ⇨ *2.a Specify how many were tested: /___/___/

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

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PART G – APPARENT CAUSE	***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).***

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

☐ External Corrosion

*1. Results of visual examination:
O Localized Pitting O General Corrosion
O Other _____

*2. Type of corrosion: *(select all that apply)*
O Galvanic O Atmospheric O Stray Current O Microbiological O Selective Seam
O Other _____

*3. The type(s) of corrosion selected in Question 2 is based on the following: *(select all that apply)*
O Field examination O Determined by metallurgical analysis
O Other _____

*4. Was the failed item buried under the ground?
O Yes ⇨ *4.a Was failed item considered to be under cathodic protection at the time of the Accident?
O Yes ⇨ Year protection started: /___/___/___/___/
O No

*4.b Was shielding, tenting, or disbonding of coating evident at the point of the Accident?
O Yes O No

*4.c Has one or more Cathodic Protection Survey been conducted at the point of the Accident?
O Yes, CP Annual Survey ⇨ Most recent year conducted: /___/___/___/___/
O Yes, Close Interval Survey ⇨ Most recent year conducted: /___/___/___/___/
O Yes, Other CP Survey ⇨ Most recent year conducted: /___/___/___/___/
O No

O No ⇨ 4.d Was the failed item externally coated or painted? O Yes O No

*5. Was there observable damage to the coating or paint in the vicinity of the corrosion?
O Yes O No

☐ Internal Corrosion

*6. Results of visual examination:
O Localized Pitting O General Corrosion O Not cut open
O Other _____

*7. Cause of corrosion: *(select all that apply)*
O Corrosive Commodity O Water drop-out/Acid O Microbiological O Erosion
O Other _____

*8. The cause(s) of corrosion selected in Question 7 is based on the following: *(select all that apply)*
O Field examination O Determined by metallurgical analysis
O Other _____

*9. Location of corrosion: *(select all that apply)*
O Low point in pipe O Elbow O Other_____

*10. Was the commodity treated with corrosion inhibitors or biocides? O Yes O No

11. Was the interior coated or lined with protective coating? O Yes O No

12. Were cleaning/dewatering pigs (or other operations) routinely utilized?
O Not applicable - Not mainline pipe O Yes O No

13. Were corrosion coupons routinely utilized?
O Not applicable - Not mainline pipe O Yes O No

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 /___/___/___/___/ O No Out-of-Service Inspection completed
14.b API Std 653 In-Service Inspection /___/___/___/___/ O No In-Service Inspection completed

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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 Pipe or Weld.

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

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

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

16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?
O Yes ⇨ Most recent year tested: /___/___/___/___/ Test pressure (psig): /___/___/___/___/___/
O No

17. Has one or more Direct Assessment been conducted on this segment?
O Yes, and an investigative dig was conducted at the point of the Accident ⇨ Most recent year conducted: /___/___/___/___/
O Yes, but the point of the Accident was not identified as a dig site ⇨ Most recent year conducted: /___/___/___/___/
O No

18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?
O Yes O 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:

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

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

☐ **Earth Movement, NOT due to Heavy Rains/Floods**	1. Specify: O Earthquake O Subsidence O Landslide O Other _____
☐ **Heavy Rains/Floods**	2. Specify: O Washout/Scouring O Flotation O Mudslide O Other _____
☐ **Lightning**	3. Specify: O Direct hit O Secondary impact such as resulting nearby fires
☐ **Temperature**	4. Specify: O Thermal Stress O Frost Heave O Frozen Components O Other _____
☐ **High Winds**	
☐ **Other Natural Force Damage**	*5. Describe: _____

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

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

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

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

☐ **Excavation Damage by Operator (First Party)**	
☐ **Excavation Damage by Operator's Contractor (Second Party)**	
☐ **Excavation Damage by Third Party**	
☐ **Previous Damage due to Excavation Activity**	**Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.** 1. Has one or more internal inspection tool collected data at the point of the Accident? O Yes O No 1.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: O Magnetic Flux Leakage /___/___/___/___/ O Ultrasonic /___/___/___/___/ O Geometry /___/___/___/___/ O Caliper /___/___/___/___/ O Crack /___/___/___/___/ O Hard Spot /___/___/___/___/ O Combination Tool /___/___/___/___/ O Transverse Field/Triaxial /___/___/___/___/ O Other _____ /___/___/___/___/ 2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? O Yes O No 3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident? O Yes ⇨ Most recent year tested: /___/___/___/___/ Test pressure (psig): /___/___/,/___/___/___/ O No 4. Has one or more Direct Assessment been conducted on the pipeline segment? O Yes, and an investigative dig was conducted at the point of the Accident ⇨ Most recent year conducted: /___/___/___/___/ O Yes, but the point of the Accident was not identified as a dig site ⇨ Most recent year conducted: /___/___/___/___/ O No 5. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002? O Yes O No 5.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted: O Radiography /___/___/___/___/ O Guided Wave Ultrasonic /___/___/___/___/ O Handheld Ultrasonic Tool /___/___/___/___/ O Wet Magnetic Particle Test /___/___/___/___/ O Dry Magnetic Particle Test /___/___/___/___/ O Other _____ /___/___/___/___/

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

6. Did the Operator get prior notification of the excavation activity? O Yes O No

*6.a If Yes, Notification received from: *(select all that apply)* O One-Call System O Excavator O Contractor O Landowner

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

7. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)? ○Yes ○ No

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

☐ Public ⇨ Specify: ○ City Street ○ State Highway ○ County Road ○ Interstate Highway ○ Other

☐ Private ⇨ Specify: ○ Private Landowner ○ Private Business ○ Private Easement

☐ Pipeline Property/Easement
☐ Power/Transmission Line
☐ Railroad
☐ Dedicated Public Utility Easement
☐ Federal Land
☐ Data not collected
☐ Unknown/Other

*9. Type of excavator: *(select only one)*

○ Contractor ○ County ○ Developer ○ Farmer ○ Municipality ○ Occupant
○ Railroad ○ State ○ Utility ○ Data not collected ○ Unknown/Other

*10. Type of excavation equipment: *(select only one)*

○ Auger ○ Backhoe/Trackhoe ○ Boring ○ Drilling ○ Directional Drilling
○ Explosives ○ Farm Equipment ○ Grader/Scraper ○ Hand Tools ○ Milling Equipment
○ Probing Device ○ Trencher ○ Vacuum Equipment ○ Data not collected ○ Unknown/Other

*11. Type of work performed: *(select only one)*

○ Agriculture ○ Cable TV ○ Curb/Sidewalk ○ Building Construction ○ Building Demolition
○ Drainage ○ Driveway ○ Electric ○ Engineering/Surveying ○ Fencing
○ Grading ○ Irrigation ○ Landscaping ○ Liquid Pipeline ○ Milling
○ Natural Gas ○ Pole ○ Public Transit Authority ○ Railroad Maintenance ○ Road Work
○ Sewer (Sanitary/Storm) ○ Site Development ○ Steam ○ Storm Drain/Culvert ○Street Light
○ Telecommunications ○Traffic Signal ○ Traffic Sign ○ Water ○ Waterway Improvement
○ Data not collected ○ Unknown/Other

*12. Was the One-Call Center notified? ○ Yes ○ No

*12.a If Yes, specify ticket number: /__/

*12.b If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:
_____

*13. Type of Locator: ○ Utility Owner ○ Contract Locator ○ Data not collected ○ Unknown/Other

*14. Were facility locate marks visible in the area of excavation? ○ No ○ Yes ○ Data not collected ○ Unknown/Other

*15. Were facilities marked correctly? ○ No ○ Yes ○ Data not collected ○ Unknown/Other

*16. Did the damage cause an interruption in service? ○ No ○ Yes ○ Data not collected ○ Unknown/Other

*16.a If Yes, specify duration of the interruption: /___/___/___/___/ hours

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

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*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)*_____
_____
_____
_____

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G4 - Other Outside Force Damage - *only one **sub-cause** can be picked from shaded left-hand column

☐ **Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Accident**	
☐ **Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation**	1. Vehicle/Equipment operated by: *(select only one)* ○ Operator ○ Operator's Contractor ○ Third Party
☐ **Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring**	2. Select one or more of the following IF an extreme weather event was a factor: ○ Hurricane ○ Tropical Storm ○ Tornado ○ Heavy Rains/Flood ○ Other _____
☐ **Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation**	
☐ **Electrical Arcing from Other Equipment or Facility**	
☐ **Previous Mechanical Damage NOT Related to Excavation**	**Complete Questions 3-7 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.** 3. Has one or more internal inspection tool collected data at the point of the Accident? ○ Yes ○ No 3.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: ○ Magnetic Flux Leakage /___/___/___/___/ ○ Ultrasonic /___/___/___/___/ ○ Geometry /___/___/___/___/ ○ Caliper /___/___/___/___/ ○ Crack /___/___/___/___/ ○ Hard Spot /___/___/___/___/ ○ Combination Tool /___/___/___/___/ ○ Transverse Field/Triaxial /___/___/___/___/ ○ Other _____ /___/___/___/___/ 4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? ○ Yes ○ No 5. 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 6. Has one or more Direct Assessment been conducted on the pipeline 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 *(This section continued on next page with Question 7.)*

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	7. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002? ○ Yes ○ 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: ○ Radiography /___/___/___/___/ ○ Guided Wave Ultrasonic /___/___/___/___/ ○ Handheld Ultrasonic Tool /___/___/___/___/ ○ Wet Magnetic Particle Test /___/___/___/___/ ○ Dry Magnetic Particle Test /___/___/___/___/ ○ Other _____ /___/___/___/___/
☐ **Intentional Damage**	8. Specify: ○ Vandalism ○ Terrorism ○ Theft of transported commodity ○ Theft of equipment ○ Other _____
☐ **Other Outside Force Damage**	*9. Describe: _____

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G5 - Material Failure of Pipe or Weld

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

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

☐ Field Examination ☐ Determined by Metallurgical Analysis ☐ Other Analysis_____

☐ Sub-cause is Tentative or Suspected; Still Under Investigation *(Supplemental Report required)*

☐ **Construction-, Installation-, or Fabrication-related**	2. List contributing factors: *(select all that apply)* ☐ Fatigue- or Vibration-related: ○ Mechanically-induced prior to installation (such as during transport of pipe) ○ Mechanical Vibration ○ Pressure-related ○ Thermal ○ Other _____ ☐ Mechanical Stress ☐ Other _____
☐ **Original Manufacturing-related (NOT girth weld or other welds formed in the field)**	
☐ **Environmental Cracking-related**	3. Specify: ○ Stress Corrosion Cracking ○ Sulfide Stress Cracking ○ Hydrogen Stress Cracking ○ Other _____

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

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

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

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

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

*6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?
○ Yes ⇨ Most recent year tested: /___/___/___/___/ Test pressure (psig): /___/___/,/___/___/___/
○ No

*7. Has one or more Direct Assessment been conducted on the pipeline segment?
○ Yes, and an investigative dig was conducted at the point of the Accident ⇨ Most recent year conducted: /___/___/___/___/
○ Yes, but the point of the Accident was not identified as a dig site ⇨ Most recent year conducted: /___/___/___/___/
○ No

*8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002?
○ Yes ○ No

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

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

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

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

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

*6. Additional factors that contributed to the equipment failure: *(select all that apply)*

- ○ Excessive vibration
- ○ Overpressurization
- ○ No support or loss of support
- ○ Manufacturing defect
- ○ Loss of electricity
- ○ Improper installation
- ○ Mismatched items (different manufacturer for tubing and tubing fittings)
- ○ Dissimilar metals
- ○ Breakdown of soft goods due to compatibility issues with transported commodity
- ○ Valve vault or valve can contributed to the release
- ○ Alarm/status failure
- ○ Misalignment
- ○ Thermal stress
- ○ Other _____

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

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

☐ **Miscellaneous**	*1. Describe: _____ _____
☐ **Unknown**	*2. Specify: ○ Investigation complete, cause of Accident unknown ○ Still under investigation, cause of Accident to be determined* *(*Supplemental Report required)*

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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 Signature

*Date

Authorized Signature Telephone Number

*Authorized Signature's Name (type or print)

Authorized Signature's Title (type or print)

Authorized Signature's E-mail Address

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