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: 7/31/2015

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

ACCIDENT REPORT – HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date REPORT_RECEIVED_DATE

No. REPORT_NUMBER SUPPLEMENTAL_NUMBER

(DOT Use Only)

INSTRUCTIONS

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

PART A – KEY REPORT INFORMATION

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

1. Operator's OPS-issued Operator Identification Number (OPID): / / / / / / OPERATOR_ID
2. Name of Operator: NAME
3. Address of Operator:
   - 3.a OPERATOR_STREET_ADDRESS (Street Address)
   - 3.b OPERATOR_CITY_NAME (City)
   - 3.c State: / / OPERATOR_STATE_ABBREVIATION
   - 3.d Zip Code: / / / / / - / / / / OPERATOR_POSTAL_CODE
4. Local time *(24-hr clock)* and date of the Accident: LOCAL_DATETIME
   / / / / (Hour) / / (Month) / / (Day) / / (Year)
5. Location of Accident: LOCATION_LATITUDE
   Latitude: / / . / / / / /
   Longitude: - / / / . / / / / / LOCATION_LONGITUDE
6. National Response Center Report Number (if applicable):
   / / / / / / / NRC_RPT_NUM
7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable): NRC_RPT_DATETIME
   / / / / (Hour) / / (Month) / / (Day) / / (Year)

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

☐ Crude Oil COMMODITY_SUBTYPE

☐ 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: _____ COMMODITY_DETAILS

☐ 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: _____ COMMODITY_DETAILS

☐ CO_2 (Carbon Dioxide)

☐ Biofuel / Alternative Fuel (including ethanol blends)

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

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

10. Estimated volume of intentional and/or controlled release/blowdown: INTENTIONAL_RELEASE_BBLS
(only reported for HVL and CO_2 Commodities)
/ / / / , / / / / . / / / Barrels

11. Estimated volume of commodity recovered: RECOVERED_BBLS
/ / / / , / / / / . / / / Barrels

12. Were there fatalities? ○ Yes ○ No FATALITY_IND

If Yes, specify the number in each category:

12.a Operator employees / / / / / NUM_EMP_FATALITIES

12.b Contractor employees working for the Operator / / / / / NUM_CONTR_FATALITIES

12.c Non-Operator emergency responders / / / / / NUM_ER_FATALITIES

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

12.e General public / / / / / NUM_GP_FATALITIES

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

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

If Yes, specify the number in each category:

13.a Operator employees / / / / / NUM_EMP_INJURIES

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

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

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

13.e General public / / / / / NUM_GP_INJURIES

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

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

○ Yes ○ No ⇨ Explain: _____ SHUTDOWN_EXPLAIN

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

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

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

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

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

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

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

18.a Local time Operator identified failure / / / / / (Hour) / / / (Month) / / / (Day) / / / (Year) INCIDENT_IDENTIFIED_DATETIME

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

PART B – ADDITIONAL LOCATION INFORMATION

*1. Was the origin of the Accident onshore? ON_OFF_SHORE

○ Yes *(Complete Questions 2-12)* (VALUE=ONSHORE) ○ No *(Complete Questions 13-15)* (VALUE=OFFSHORE)

If **Onshore**:

ONSHORE_STATE_ABBREVIATION

2. State: /___/___/

ONSHORE_POSTAL_CODE

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

4. ONSHORE_CITY_NAME _____ City

5 ONSHORE_COUNTY_NAME _____ County or Parish

DESIGNATED_LOCATION

6. Operator-designated location: *(select only one)*

☐ Milepost/Valve Station *(specify in shaded area below)*

☐ Survey Station No. *(specify in shaded area below)*

DESIGNATED_NAME

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

7. Pipeline/Facility name: PIPE_FAC_NAME _____

8. Segment name/ID: SEGMENT_NAME _____

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

10. Location of Accident: *(select only one)* LOCATION_TYPE

☐ Totally contained on Operator-controlled property

☐ Originated on Operator-controlled property, but then flowed or migrated off the property

☐ Pipeline right-of-way INCIDENT_AREA_TYPE

11. Area of Accident (as found): *(select only one)* INCIDENT_AREA_SUBTYPE

☐ 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 INCIDENT_AREA_DETAILS _____

Depth-of-Cover (in): /___/___/___/___/___/ DEPTH_OF_COVER

☐ Aboveground ⇨ Specify:

○ Typical aboveground facility piping or appurtenance

○ Overhead crossing

○ In or spanning an open ditch

○ Inside a building ○ Inside other enclosed space

○ Other INCIDENT_AREA_DETAILS _____

☐ Transition Area ⇨ Specify: ○ Soil/air interface ○ Wall sleeve ○ Pipe support or other close contact area

○ Other INCIDENT_AREA_DETAILS _____

CROSSING

12. Did Accident occur in a crossing?: ○ Yes ○ No

If Yes, specify type below:

☐ Bridge crossing ⇨ Specify: ○ Cased ○ Uncased ⇨ BRIDGE_CROSSING_IND, BRIDGE_TYPE

☐ Railroad crossing ⇨ *(select all that apply)* ⇨ RAILROAD_CROSSING_IND, RAILROAD_TYPE

○ Cased ○ Uncased ○ Bored/drilled

☐ Road crossing ⇨ *(select all that apply)* ⇨ ROAD_CROSSING_IND, ROAD_TYPE

○ Cased ○ Uncased ○ Bored/drilled

☐ Water crossing ⇨ WATER_CROSSING_IND, WATER_TYPE

⇨ Specify: ○ Cased ○ Uncased

Name of body of water, if commonly known:

WATER_NAME _____

Approx. water depth (ft) at the point of the Accident:

/___/___/___/___/___/ WATER_DEPTH

(select only one of the following) WATER_SUBTYPE

○ 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:

/___/___/___/___/___/___/___/ OFF_WATER_DEPTH

14. Origin of Accident: OFF_ACCIDENT_ORIGIN

☐ In State waters OFFSHORE_STATE_ABBREVIATION

⇨ Specify: State: /___/___/

OFF_INSTATE_AREA Area: _____

OFF_INSTATE_BLOCK Block/Tract #: /___/___/___/___/___/

OFFSHORE_COUNTY_NAME Nearest County/Parish: _____

☐ On the Outer Continental Shelf (OCS)

⇨ Specify: Area: OFF_OCS_AREA _____

Block #: OFF_OCS_BLOCK /___/___/___/___/

15. Area of Accident: *(select only one)* OFF_AREA_ACCIDENT_TYPE

☐ Shoreline/Bank crossing or shore approach

☐ Below water, pipe buried or jetted below seabed

☐ Below water, pipe on or above seabed

☐ Splash Zone of riser

☐ Portion of riser outside of Splash Zone, including riser bend

☐ Platform

PART C – ADDITIONAL FACILITY INFORMATION

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

2. Part of system involved in Accident: *(select only one)* SYSTEM_PART_INVOLVED SYSTEM_SUBPART_INVOLVED
   - ☐ 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)* ITEM_NVOLVED
   - ☐ Pipe PIPE_TYPE ⇨ Specify: ○ Pipe Body ○ Pipe Seam
     - 3.a Nominal diameter of pipe (in): PIPE_DIAMETER
     - 3.b Wall thickness (in): PIPE_WALL_THICKNESS
     - 3.c SMYS (Specified Minimum Yield Strength) of pipe (psi): PIPE_SMYS
     - 3.d Pipe specification: PIPE_SPECIFICATION
     - 3.e Pipe Seam PIPE_SEAM_TYPE ⇨ 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 PIPE_SEAM_DETAILS
     - 3.f Pipe manufacturer: PIPE_MANUFACTURER
     - 3.g Year of manufacture: PIPE_MANUFACTURE_YEAR
     - 3.h Pipeline coating type at point of Accident PIPE_COATING_TYPE ⇨ Specify: ○ Fusion Bonded Epoxy ○ Coal Tar ○ Asphalt ○ Polyolefin ○ Extruded Polyethylene ○ Field Applied Epoxy ○ Cold Applied Tape ○ Paint ○ Composite ○ None ○ Other PIPE_COATING_DETAILS
   - ☐ Weld, including heat-affected zone WELD_SUBTYPE ⇨ Specify: ○ Pipe Girth Weld ○ Other Butt Weld ○ Fillet Weld ○ Other WELD_DETAILS

   If Pipe Girth Weld is selected, complete items 3.a. through h. above. If the values differ on either side of the girth weld, enter one value in 3.a. through h. and list the different value(s) in Part H - Narrative Description of the Accident.
   - ☐ Valve VALVE_TYPE ○ Mainline VALVE_MAINLINE_TYPE ⇨ Specify: ○ Butterfly ○ Check ○ Gate ○ Plug ○ Ball ○ Globe ○ Other VALVE_MAINLINE_DETAILS
     - 3.i Mainline valve manufacturer: VALVE_MANUFACTURER
     - 3.j Year of manufacture: VALVE_MANUFACTURE_YEAR
     - ○ 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 TANK_VESSEL_SUBTYPE ⇨ Specify: ○ Single Bottom System ○ Double Bottom System ○ Tank Shell ○ Chime ○ Roof/Roof Seal ○ Roof Drain System ○ Mixer ○ Pressure Vessel Head or Wall ○ Appurtenance ○ Other TANK_VESSEL_DETAILS
   - ☐ Other ITEM_INVOLVED_DETAILS

4. Year item involved in Accident was installed: INSTALLATION_YEAR

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

☐ Carbon Steel

☐ Material other than Carbon Steel ⇨ Specify: _____ MATERIAL_DETAILS

RELEASE_TYPE

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

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

LEAK_TYPE LEAK_TYPE_OTHER

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

RUPTURE_ORIENT

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

RUPTURE_WIDTH RUPTURE_LENGTH

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

☐ Overfill or Overflow

☐ Other ⇨ Describe: _____ RELEASE_TYPE_DETAILS

PART D – ADDITIONAL CONSEQUENCE INFORMATION

1. Wildlife impact: ○ Yes ○ No WILDLIFE_IMPACT_IND

1.a If Yes, specify all that apply:

☐ Fish/aquatic FISH_AQUATIC_IMPACT_IND

☐ Birds BIRDS_IMPACT_IND

☐ Terrestrial TERRESTRIAL_IMPACT_IND

2. Soil contamination: ○ Yes ○ No SOIL_CONTAMINATION

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

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

4.a If Yes, specify all that apply:

SURFACE_WATER_REMED_IND, GROUNDWATER_REMED_IND, SOIL_REMED_IND, VEGETATION_REMED_IND, WILDLIFE_REMED_IND

☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

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

5.a Specify all that apply:

☐ Ocean/Seawater OCEAN_SEAWATER_IND

☐ Surface SURFACE_CONTAM_IND

☐ Groundwater GROUNDWATER_CONTAM_IND

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

5.b Estimated amount released in or reaching water: /__/__/__/,/__/__/__/./__/__/ Barrels AMOUNT_RELEASED

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

COULD_BE_HCA

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

COMMODITY_REACHED_HCA

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 COMMERCIALLY_NAV_IND

Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?

○ Yes ○ No COMMERCIALLY_NAV_YES_NO

☐ High Population Area HIGH_POP_IND

Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?

○ Yes ○ No HIGH_POP_YES_NO

☐ Other Populated Area OTHER_POP_IND

Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?

○ Yes ○ No OTHER_POP_YES_NO

☐ Unusually Sensitive Area (USA) – Drinking Water USA_DRINKING_IND

Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?

○ Yes ○ No USA_DRINKING_YES_NO

☐ Unusually Sensitive Area (USA) – Ecological USA_ECOLOGICAL_IND

Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?

○ Yes ○ No USA_ECOLOGICAL_YES_NO

8. Estimated Property Damage:

8.a Estimated cost of public and non-Operator private property damage EST_COST_OPER_PAID $ /___/___/___/,/___/___/___/,/___/___/___/

8.b Estimated cost of commodity lost EST_COST_GAS_RELEASED $ /___/___/___/,/___/___/___/,/___/___/___/

8.c Estimated cost of Operator's property damage & repairs EST_COST_PROP_DAMAGE $ /___/___/___/,/___/___/___/,/___/___/___/

8.d Estimated cost of Operator's emergency response EST_COST_EMERGENCY $ /___/___/___/,/___/___/___/,/___/___/___/

8.e Estimated cost of Operator's environmental remediation EST_COST_ENVIRONMENTAL $ /___/___/___/,/___/___/___/,/___/___/___/

8.f Estimated other costs EST_COST_OTHER $ /___/___/___/,/___/___/___/,/___/___/___/

Describe _____ EST_COST_OTHER_DETAILS

8.g Total estimated property damage (sum of above) PRPTY $ /___/___/___/,/___/___/___/,/___/___/___/

PART E – ADDITIONAL OPERATING INFORMATION

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

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

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

- ☐ 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 PRESSURE_RESTRICTION_IND
☐ Yes ⇨ *(Complete 4.a and 4.b below)*

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

4.b Was this pressure restriction mandated by PHMSA or the State? PHMSA_RESTRICTION_IND ○ 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 PART_C_QUESTION_2_IND
☐ Yes ⇨ *(Complete 5.a – 5.e below)*

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

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

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

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

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

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

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

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

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

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

☐ No SCADA_IN_PLACE_IND

☐ Yes ⇨

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

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

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 SCADA_DETECTION_IND

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 SCADA_CONF_IND

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

☐ No CPM_IN_PLACE_IND

☐ Yes ⇨

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

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

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 CPM_DETECTION_IND

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 CPM_CONF_IND

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

☐ 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 ACCIDENT_DETAILS

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_TYPE

○ 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)* INVESTIGATION_STATUS

☐ 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)* INVESTIGATION_STATUS_DETAILS

☐ 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 INVEST_SCHEDULE_IND

○ 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)* INVEST_NO_SCHEDULE_IND
INVEST_NO_SCHEDULE_IND_DETAILS

○ Investigation identified no control room issues INVEST_NO_CONTROL_ROOM_IND
○ Investigation identified no controller issues INVEST_NO_CONTROLLER_IND
○ Investigation identified incorrect controller action or controller error INVEST_INCORRECT_ACTION_IND
○ Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response INVEST_FATIGUE_IND
○ Investigation identified incorrect procedures INVEST_INCORRECT_PROCEDURE_IND
○ Investigation identified incorrect control room equipment operation INVEST_INCORRECT_CONTROL_IND
○ Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response INVEST_MAINT_IND
○ Investigation identified areas other than those above ⇨ Describe: INVEST_OTHER_IND, INVEST_OTHER_IND_DETAILS

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? EMPLOYEE_DRUG_TEST_IND
   - ○ No
   - ○ Yes ⇨ *1.a Specify how many were tested: /___/___/ NUM_EMPLOYEES_TESTED
     *1.b Specify how many failed: /___/___/ NUM_EMPLOYEES_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? CONTRACTOR_DRUG_TEST_IND
   - ○ No
   - ○ Yes ⇨ *2.a Specify how many were tested: /___/___/ NUM_CONTRACTORS_TESTED
     *2.b Specify how many failed: /___/___/ NUM_CONTRACTORS_FAILED

PART G – APPARENT CAUSE

CAUSE, CAUSE_DETAILS (sub-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

INTERNAL_EXTERNAL

☐ **External Corrosion**

1. Results of visual examination: VISUAL_EXAM_RESULTS
   - ○ Localized Pitting ○ General Corrosion
   - ○ Other VISUAL_EXAM_DETAILS
2. Type of corrosion: *(select all that apply)*
   GALVANIC_CORROSION_IND, ATMOSPHERE_CORROSION_IND, STRAY_CURRENT_CORROSION_IND, MICROBIOLOGICAL_CORROSION_IND, SELECTIVE_SEAM_CORROSION_IND
   - ○ Galvanic ○ Atmospheric ○ Stray Current ○ Microbiological ○ Selective Seam
   - ○ Other OTHER_CORROSION_IND, CORROSION_TYPE_DETAILS
3. The type(s) of corrosion selected in Question 2 is based on the following: *(select all that apply)* FIELD_EXAM_BASIS_IND METALLURGICAL_BASIS_IND
   - ○ Field examination ○ Determined by metallurgical analysis
   - ○ Other OTHER_BASIS_ IND, CORROSION_BASIS_DETAILS
4. Was the failed item buried under the ground? UNDERGROUND LOCATION
   - ○ Yes ⇨ 4.a Was failed item considered to be under cathodic protection at the time of the Accident? UNDER_CATHODIC_PROTECTION_IN
     - ○ Yes ⇨ Year protection started: /___/___/___/___/ CATHODIC_PRO_START_YEAR
     - ○ No

     4.b Was shielding, tenting, or disbonding of coating evident at the point of the Accident? SHIELDING_EVIDENT
     - ○ Yes ○ No

     4.c Has one or more Cathodic Protection Survey been conducted at the point of the Accident? CATHODIC_SURVEY_TYPE

     CP_ANNUAL_SURVEY_IND, _YEAR ⇨
     - ○ Yes, CP Annual Survey ⇨ Most recent year conducted: /___/___/___/___/

     CLOSE_INTERVAL_SURVEY_IND, _YEAR ⇨
     - ○ Yes, Close Interval Survey ⇨ Most recent year conducted: /___/___/___/___/

     OTHER_CP_SURVEY_IND, _YEAR ⇨
     - ○ Yes, Other CP Survey ⇨ Most recent year conducted: /___/___/___/___/
     - ○ No

     EXTERNALLY_COATED
   - ○ No ⇨ 4.d Was the failed item externally coated or painted? ○ Yes ○ No
5. Was there observable damage to the coating or paint in the vicinity of the corrosion?
   - ○ Yes ○ No PRIOR_DAMAGE

☐ **Internal Corrosion**

6. Results of visual examination: INT_VISUAL_EXAM_RESULTS
   ○ Localized Pitting ○ General Corrosion ○ Not cut open
   ○ Other INT_VISUAL_EXAM_DETAILS

7. Cause of corrosion: *(select all that apply)*
INT_CORROSIVE_COMMODITY_IND, INT_WATER_ACID_IND, INT_MICROBIOLOGICAL_IND
   ○ Corrosive Commodity ○ Water drop-out/Acid ○ Microbiological ○ Erosion
   ○ Other INT_OTHER_CORROSION_IND, INT_CORROSION_TYPE_DETAILS INT_EROSION_IND

8. The cause(s) of corrosion selected in Question 7 is based on the following: *(select all that apply)* INT_FIELD_EXAM_BASIS_IND, INT_METALLURGICAL_BASIS_IND
   ○ Field examination ○ Determined by metallurgical analysis
   ○ Other INT_OTHER_BASIS_IND, INT_CORROSION_BASIS_DETAILS

9. Location of corrosion: *(select all that apply)*
INT_LOW_POINT_PIPE_LOC_IND, INT_ELBOW_LOC_IND, INT_OTHER_LOC_IND
   ○ Low point in pipe ○ Elbow ○ Other CORROSION_LOCATION_DETAILS

CORROSION_INHIBITORS
10. Was the commodity treated with corrosion inhibitors or biocides? ○ Yes ○ No

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

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

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

Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in 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 / / / / API_STD_OUT_OF_SERVICE_YEAR
   14.b API Std 653 In-Service Inspection / / / / API_STD_IN_SERVICE_YEAR

API_STD_OUT_OF_SERVICE_IND
○ No Out-of-Service Inspection completed
○ No In-Service Inspection completed
API_STD_IN_SERVICE_IND

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

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

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

○ Magnetic Flux Leakage Tool	/ / / / /	COR_MAGNETIC_FLUX_LEAKAGE_IND, COR_MAG_FLUX_LEAKAGE_YEAR
○ Ultrasonic	/ / / / /	COR_ULTRASONIC_IND , _YEAR
○ Geometry	/ / / / /	COR_GEOMETRY_IND , _YEAR
○ Caliper	/ / / / /	COR_CALIPER_IND , _YEAR
○ Crack	/ / / / /	COR_CRACK_IND , _YEAR
○ Hard Spot	/ / / / /	COR_HARDSPOT_IND , _YEAR
○ Combination Tool	/ / / / /	COR_COMBINATION_TOOL_IND , _YEAR
○ Transverse Field/Triaxial	/ / / / /	COR_TRANSVERSE_FIELD_IND , _YEAR
○ Other _____	/ / / / /	COR_INSPECTION_OTHER_IND , _YEAR , _DETAILS

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

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

18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?
   ○ Yes ○ No COR_NON_DESTRUCTIVE_IND

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

○ Radiography	/ / / / /	COR_RADIOGRAPHY_IND , _YEAR
○ Guided Wave Ultrasonic	/ / / / /	COR_GUIDED_WAVE_IND , _YEAR
○ Handheld Ultrasonic Tool	/ / / / /	COR_HANDHELD_ULTRA_IND , _YEAR
○ Wet Magnetic Particle Test	/ / / / /	COR_WET_MAGNETIC_IND , _YEAR
○ Dry Magnetic Particle Test	/ / / / /	COR_DRY_MAGNETIC_IND , _YEAR
○ Other COR_NON_DEST_DETAILS	/ / / / /	COR_NON_DEST_OTHER_IND , _YEAR

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

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

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

(NF_EXTREME_WEATHER_IND)

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

6.a If Yes, specify: (*select all that apply*) ○ Hurricane (NF_HURRICANE_IND) ○ Tropical Storm (NF_TROPICAL_STORM_IND) ○ Tornado (NF_TORNADO_IND)
○ Other _____ (NF_OTHER_IND) (NF_EXTREME_WEATHER_DETAILS)

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

(EX_PARTY_TYPE)

☐ **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? ○ Yes ○ No (EX_INSPECT_TOOL_COLLECTED_IND)

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

○ Magnetic Flux Leakage (EX_MAGNETIC_FLUX_LEAKAGE_IND , _YEAR)	/__/__/__/__/
○ Ultrasonic (EX_ULTRASONIC_IND , _YEAR)	/__/__/__/__/
○ Geometry (EX_GEOMETRY_IND , _YEAR)	/__/__/__/__/
○ Caliper (EX_CALIPER_IND , _YEAR)	/__/__/__/__/
○ Crack (EX_CRACK_IND , _YEAR)	/__/__/__/__/
○ Hard Spot (EX_HARDSPOT_IND , _YEAR)	/__/__/__/__/
○ Combination Tool (EX_COMBINATION_TOOL_IND , _YEAR)	/__/__/__/__/
○ Transverse Field/Triaxial (EX_TRANSVERSE_FIELD_IND , _YEAR)	/__/__/__/__/
○ Other _____ (EX_INSPECTION_OTHER_IND, _YEAR , _DETAILS)	/__/__/__/__/

2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? ○ Yes ○ No (EX_BEFORE_DAMAGE)

3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident? (EX_HYDROTEST_CONDUCTED_IND)

○ Yes ⇨ Most recent year tested: /__/__/__/__/ (EX_HYDROTEST_CONDUCTED_YEAR)
Test pressure (psig): /__/__/,/__/__/__/ (EX_HYDROTEST_PRESSURE)

○ No

(EX_DIRECT_INSPECTION_TYPE)

4. 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: /__/__/__/__/ (EX_DIRECT_YES_DIG_YEAR)

○ Yes, but the point of the Accident was not identified as a dig site
⇨ Most recent year conducted: /__/__/__/__/ (EX_DIRECT_YES_NO_DIG_YEAR)

○ No

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

EX_RADIOGRAPHY_IND, _YEAR ⇨ O Radiography /__/__/__/__/
EX_GUIDED_WAVE_IND, _YEAR ⇨ O Guided Wave Ultrasonic /__/__/__/__/
EX_HANDHELD_ULTRA_IND , _YEAR ⇨ O Handheld Ultrasonic Tool /__/__/__/__/
EX_WET_MAGNETIC_IND, _YEAR ⇨ O Wet Magnetic Particle Test /__/__/__/__/
EX_DRY_MAGNETIC_IND , _YEAR ⇨ O Dry Magnetic Particle Test /__/__/__/__/
O Other _____ /__/__/__/__/
EX_NON_DEST_OTHER_IND , _YEAR , _DETAILS

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 Nov PRIOR_NOTIFICATION_IND

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

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)? O Yes O No NOTIFY_CGA_DIRT

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

PUBLIC_ROW_IND, PUBLIC_SUBTYPE
☐ Public ⇨ Specify: O City Street O State Highway O County Road O Interstate Highway O Other
PRIVATE_ROW_IND, PRIVATE_SUBTYPE
☐ Private ⇨ Specify: O Private Landowner O Private Business O 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
☐ Data not collected DATA_NOT_COLLECTED_ROW_IND
☐ Unknown/Other UNKNOWN_ROW_IND

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

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

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

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

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

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

ONE_CALL_NOTIFIED_IND
12. Was the One-Call Center notified? O Yes O No

ONE_CALL_TICKET_NUM
*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:
_____
ONE_CALL_CENTER_NAME

13. Type of Locator: LOCATOR_TYPE O Utility Owner O Contract Locator O Data not collected O Unknown/Other

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

15. Were facilities marked correctly? FACILITIES_MARKED O No O Yes O Data not collected O Unknown/Other

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

16.a If Yes, specify duration of the interruption: /__/__/__/__/ hours SERVICE_INTERRUPTION_HOURS

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)*: ROOT_CAUSE

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

- ○ 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)* LOCATING_SUBTYPE

- ○ 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_SUBTYPE

- ○ 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)* ROOT_CAUSE_OTHER _____

_____

_____

_____

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

OUTSIDE_FORCE_TYPE

☐ **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**

VEHICLE_SUBTYPE

1. Vehicle/Equipment operated by: *(select only one)*
   O Operator O Operator's Contractor O 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:
   OSF_HURRICANE_IND O Hurricane OSF_TROPICAL_STORM_IND O Tropical Storm OSF_TORNADO_IND O Tornado
   O Heavy Rains/Flood OSF_HEAVY_RAINS_IND O Other _____ OSF_OTHER_WEATHER_IND
   OSF_OTHER_WEATHER_DETAILS

☐ **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?
   OSF_INSPECT_TOOL_COLLECTED_IND O Yes O No

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

OSF_MAGNETIC_FLUX_LEAKAGE_IND , _YEAR ⇨	O Magnetic Flux Leakage	/__/__/__/__/
OSF_ULTRASONIC_IND , _YEAR ⇨	O Ultrasonic	/__/__/__/__/
OSF_GEOMETRY_IND , _YEAR ⇨	O Geometry	/__/__/__/__/
OSF_CALIPER_IND , _YEAR ⇨	O Caliper	/__/__/__/__/
OSF_CRACK_IND , _YEAR ⇨	O Crack	/__/__/__/__/
OSF_HARDSPOT_IND , _YEAR ⇨	O Hard Spot	/__/__/__/__/
OSF_COMBINATION_TOOL_IND , _YEAR ⇨	O Combination Tool	/__/__/__/__/
OSF_TRANSVERSE_FIELD_IND , _YEAR ⇨	O Transverse Field/Triaxial	/__/__/__/__/
OSF_INSPECTION_OTHER_IND , _YEAR , _DETAILS ⇨	O Other _____	/__/__/__/__/

4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? O Yes O No OSF_BEFORE_DAMAGE

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

OSF_DIRECT_INSPECTION_TYPE

6. 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: /__/__/__/__/ OSF_DIRECT_YES_DIG_YEAR
   O Yes, but the point of the Accident was not identified as a dig site
   ⇨ Most recent year conducted: /__/__/__/__/ OSF_DIRECT_YES_NO_DIG_YEAR
   O No

7. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?
   O Yes O No OSF_NON_DESTRUCTIVE_IND

(This section continued on next page with Question 7.a.)

OSF_RADIOGRAPHY_IND, _YEAR ⇨
OSF_GUIDED_WAVE_IND , _YEAR ⇨
OSF_HANDHELD_ULTRA_IND, _YEAR ⇨
OSF_WET_MAGNETIC_IND, _YEAR ⇨
OSF_DRY_MAGNETIC_IND , _YEAR ⇨
OSF_NON_DEST_OTHER_IND, _YEAR ⇨

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 OSF_NON_DEST_DETAILS /__/__/__/__/

☐ **Intentional Damage**

8. Specify: INTENTIONAL_SUBTYPE
   - ○ Vandalism ○ Terrorism
   - ○ Theft of transported commodity ○ Theft of equipment
   - ○ Other INTENTIONAL_DETAILS

☐ **Other Outside Force Damage**

9. Describe: OSF_OTHER_DETAILS

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_EXAM_IND METALLURGICAL_IND
   ☐ Field Examination ☐ Determined by Metallurgical Analysis ☐ Other Analysis OTHER_ANALYSIS_IND, OTHER_ANALYSIS_DETAILS
   STILL_UNDER_INVEST_IND
   ☐ Sub-cause is Tentative or Suspected; Still Under Investigation *(Supplemental Report required)*

FAILURE_TYPE

☐ **Construction-, Installation-, or Fabrication-related**

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

☐ **Environmental Cracking-related**

2. List contributing factors: *(select all that apply)* FAILURE_SUBTYPE_1, _2
   - ☐ Fatigue- or Vibration-related: FATIGUE_VIBR_RELATED_1, _2
     - ○ Mechanically-induced prior to installation (such as during transport of pipe)
     - ○ Mechanical Vibration
     - ○ Pressure-related
     - ○ Thermal
     - ○ Other FATIGUE_VIBR_RELATED_OTHER_1, _2
   - ☐ Mechanical Stress MECHANICAL_STRESS_1, _2
   - ☐ Other OTHER_FACTOR_1, _2 OTHER_FACTOR_DETAILS_1, _2

3. Specify: ○ Stress Corrosion Cracking ○ Sulfide Stress Cracking STRESS_SUBTYPE
   ○ Hydrogen Stress Cracking ○ Other STRESS_DETAILS

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

ADDITIONAL_DENT_IND, ADDITIONAL_GOUGE_IND, ADDITIONAL_PIPE_BEND_IND, ADDITIONAL_ARC_BURN_IND, ADDITIONAL_CRACK_IND,
4. Additional factors: *(select all that apply)* ○ Dent ○ Gouge ○ Pipe Bend ○ Arc Burn ○ Crack ○ Lack of Fusion
   ○ Lamination ○ Buckle ○ Wrinkle ○ Misalignment ○ Burnt Steel ADDITIONAL_LACK_FUSION_IND
   ○ Other ADDITIONAL_LAMINATION_IND, ADDITIONAL_BUCKLE_IND, ADDITIONAL_WRINKLE_IND, PWF_ADDL_MISALIGNMENT_IND
   ADDITIONAL_BURNT_STEEL_IND, PWF_ADDITIONAL_OTHER_IND, PWF_ADDITIONAL_OTHER_DETAILS, ADDITIONAL_FACTOR_DETAILS

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

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

   - ○ Magnetic Flux Leakage Tool /__/__/__/__/ PWF_MAGNETIC_FLUX_LEAKAGE_IND, PWF_MAG_FLUX_LEAKAGE_YEAR
   - ○ Ultrasonic /__/__/__/__/ PWF_ULTRASONIC_IND, _YEAR
   - ○ Geometry /__/__/__/__/ PWF_GEOMETRY_IND, _YEAR
   - ○ Caliper /__/__/__/__/ PWF_CALIPER_IND , _YEAR
   - ○ Crack /__/__/__/__/ PWF_CRACK_IND , _YEAR
   - ○ Hard Spot /__/__/__/__/ PWF_HARDSPOT_IND , _YEAR
   - ○ Combination Tool /__/__/__/__/ PWF_COMBINATION_TOOL_IND , _YEAR
   - ○ Transverse Field/Triaxial /__/__/__/__/ PWF_TRANSVERSE_FIELD_IND , _YEAR
   - ○ Other _____ /__/__/__/__/ PWF_INSPECTION_OTHER_IND , _YEAR, _DETAILS

PWF_HYDROTEST_CONDUCTED_IND
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 PWF_HYDROTEST_CONDUCTED_YEAR PWF_HYDROTEST_PRESSURE
PWF_DIRECT_INSPECTION_TYPE
7. Has one or more Direct Assessment been conducted on the pipeline segment? PWF_DIRECT_YES_DIG_YEAR
   ○ 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 PWF_DIRECT_YES_NO_DIG_YEAR
PWF_NON_DEST_IND
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 /__/__/__/__/ PWF_RADIOGRAPHY_IND, _YEAR
   - ○ Guided Wave Ultrasonic /__/__/__/__/ PWF_GUIDED_WAVE_IND , _YEAR
   - ○ Handheld Ultrasonic Tool /__/__/__/__/ PWF_HANDHELD_ULTRA_IND , _YEAR
   - ○ Wet Magnetic Particle Test /__/__/__/__/ PWF_WET_MAGNETIC_IND , _YEAR
   - ○ Dry Magnetic Particle Test /__/__/__/__/ PWF_DRY_MAGNETIC_IND , _YEAR
   - ○ Other _____ /__/__/__/__/ PWF_NON_DEST_OTHER_IND , _YEAR , _DETAILS

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

EQ_FAILURE_TYPE ☐ **Malfunction of Control/Relief Equipment**	CONTROL_VALVE_IND, INSTRUMENTATION_IND, SCADA_IND, COMMUNICATIONS_IND, BLOCK_VALVE_IND 1. Specify: *(select all that apply)* CHECK_VALVE_IND, RELIEF_VALVE_IND, POWER_FAILURE_IND ○ Control Valve ○ Instrumentation ○ SCADA ○ Communications ○ Block Valve ○ Check Valve ○ Relief Valve ○ Power Failure ○ Stopple/Control Fitting STOPPLE_CONTROL_FITTING_IND ○ ESD System Failure ESD_SYSTEM_FAILURE_IND ○ Other OTHER_CONTROL_RELIEF_IND, OTHER_CONTROL_RELIEF_DETAILS
☐ **Pump or Pump-related Equipment**	OTHER_PUMP_IND 2. Specify: ○ Seal/Packing Failure ○ Body Failure ○ Crack in Body ○ Appurtenance Failure ○ Other OTHER_PUMP_DETAILS
☐ **Threaded Connection/Coupling Failure**	OTHER_STRIPPED_IND 3. Specify: ○ Pipe Nipple ○ Valve Threads ○ Mechanical Coupling ○ Threaded Pipe Collar ○ Threaded Fitting ○ Other OTHER_STRIPPED_DETAILS
☐ **Non-threaded Connection Failure**	OTHER_NON_THREADED_IND 4. Specify: ○ O-Ring ○ Gasket ○ Seal (NOT pump seal) or Packing ○ Other OTHER_NON_THREADED_DETAILS
☐ **Defective or Loose Tubing or Fitting**	
☐ **Failure of Equipment Body (except Pump), Tank Plate, or other Material**	
☐ **Other Equipment Failure**	5. Describe: FAILURE_DETAILS

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
- ○ 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 commodity ADDITIONAL_BREAKDOWN_IND
- ○ Valve vault or valve can contributed to the release ADDITIONAL_VALVE_IND
- ○ Alarm/status failure ADDITIONAL_ALARM_IND
- ○ Misalignment IEF_ADDL_MISALIGNMENT_IND
- ○ Thermal stress ADDITIONAL_THERMAL_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 ☐ **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**	OVERFLOW_OTHER_IND 1. Specify: ○ Valve misalignment ○ Incorrect reference data/calculation ○ Miscommunication ○ Inadequate monitoring ○ Other _____ OVERFLOW_OTHER_DETAILS
☐ **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: _____ OPERATION_DETAILS

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

3. Was this Accident 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 Accident: 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 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)? 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 Accident Cause - *only one **sub-cause** can be picked from shaded left-hand column

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

PART H – NARRATIVE DESCRIPTION OF THE ACCIDENT *(Attach additional sheets as necessary)*

NARRATIVE

PART I – PREPARER AND AUTHORIZED SIGNATURE

PREPARER_NAME
Preparer's Name (type or print)

PREPARER_TELEPHONE
Preparer's Telephone Number

PREPARER_TITLE
Preparer's Title (type or print)

PREPARER_EMAIL
Preparer's E-mail Address

PREPARER_FAX
Preparer's Facsimile Number

Authorized Signer's Name

PREPARED_DATE
Date

AUTHORIZER_TELEPHONE
Authorized Signer Telephone Number

AUTHORIZER_NAME
Authorized Signer's Title

Authorized Signer's E-mail Address

AUTHORIZER_TITLE

AUTHORIZER_EMAIL

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

Field Name	Field Name Description
IYEAR	*Year accident occurred, derived from accident date*