NOTICE: This report is required by 49 CFR Part 191. 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.

Form Approved
OMB NO: 2137-0522
Expires: 10/31/2017

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

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

Report Date REPORT_RECEIVED_DATE
No. REPORT_NUMBER SUPPLEMENTAL_NUMBER
(DOT Use Only)

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

INSTRUCTIONS

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

PART A – KEY REPORT INFORMATION

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

Last Revision Date

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 Incident:
   LOCAL_DATETIME
   / / / / Hour / / Month / / Day / / Year
5. Location of Incident: LOCATION_LATITUDE
   Latitude: / / . / / / / /
   Longitude: - / / / . / / / / / LOCATION_LONGITUDE

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

8. Incident resulted from: INCIDENT_RESULTED
   - ☐ Unintentional release of gas
   - ☐ Intentional release of gas
   - ☐ Reasons other than release of gas

COMMODITY_RELEASED_TYPE

9. Gas released: *(select only one, based on predominant volume released)*
   - ☐ Natural Gas
   - ☐ Propane Gas
   - ☐ Synthetic Gas
   - ☐ Hydrogen Gas
   - ☐ Landfill Gas
   - ☐ Other Gas ⇨ Name: COMMODITY_DETAILS

UNINTENTIONAL_RELEASE
10. Estimated volume of gas released unintentionally: / / /,/ / / / Thousand Cubic Feet (MCF)
INTENTIONAL_RELEASE
11. Estimated volume of intentional and controlled release/blowdown : / / /,/ / / / Thousand Cubic Feet (MCF)
12. Estimated volume of accompanying liquid released: / / /,/ / / / Barrels
ACCOMPANYING_LIQUID

13. Were there fatalities? ○ Yes ○ No FATALITY_IND

If Yes, specify the number in each category:

13.a Operator employees NUM_EMP_FATALITIES /___/___/___/___/

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

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

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

13.e General public NUM_GP_FATALITIES /___/___/___/___/

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

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

If Yes, specify the number in each category:

14.a Operator employees NUM_EMP_INJURIES /___/___/___/___/

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

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

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

14.e General public NUM_GP_INJURIES /___/___/___/___/

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

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

○ Yes ○ No ⇨ Explain: SHUTDOWN_EXPLAIN _____

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

SHUTDOWN_DATETIME

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

RESTART_DATETIME

15.b Local time pipeline/facility restarted /___/___/___/___/ (Hour) /___/___/ (Month) /___/___/ (Day) /___/___/ (Year)

STILL_SHUTDOWN_IND ○ Still shut down*

*(*Supplemental Report required)*

16. Did the gas ignite? ○ Yes ○ No IGNITE_IND

17. Did the gas explode? ○ Yes ○ No EXPLODE_IND

18. Number of general public evacuated: /___/___/___/,/___/___/___/ NUM_PUB_EVACUATED

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

INCIDENT_IDENTIFIED_DATETIME

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

19.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 Incident onshore? ON_OFF_SHORE
   ○ Yes (Complete Questions 2-12) ○ No (Complete Questions 13-15)

If **Onshore**:

2. State: /__/__/ ONSHORE_STATE_ABBREVIATION
3. Zip Code: /__/__/__/__/__/ - /__/__/__/__/ ONSHORE_POSTAL_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 Incident on Federal land, other than the Outer Continental Shelf (OCS)? ○ Yes ○ No FEDERAL
10. Location of Incident: *(select only one)* LOCATION_TYPE
    - ☐ Operator-controlled property
    - ☐ Pipeline right-of-way

INCIDENT_AREA_TYPE

11. Area of Incident (as found): *(select only one)*
    INCIDENT_AREA_SUBTYPE
    - ☐ Belowground storage or aboveground storage vessel, including attached appurtenances
    - ☐ Underground ⇨ Specify: ○ Under soil
      ○ Under a building ○ Under pavement
      ○ Exposed due to excavation
      ○ In underground enclosed space (e.g., vault)
      ○ Other 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

12. Did Incident occur in a crossing? ○ Yes ○ No CROSSING
    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 Incident:
      /__/,/__/__/__/ 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 Incident:
    /__/,/__/__/__/ OFF_WATER_DEPTH
14. Origin of Incident: OFF_ACCIDENT_ORIGIN
    - ☐ In State waters OFFSHORE_STATE_ABBREVIATION
      ⇨ Specify: State: /__/__/
      Area: OFF_INSTATE_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 Incident: *(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 Incident: *(select only one)* SYSTEM_PART_INVOLVED
   - ☐ Belowground Storage, Including Associated Equipment and Piping
   - ☐ Aboveground Storage, Including Associated Equipment and Piping
   - ☐ Onshore Compressor Station Equipment and Piping
   - ☐ Onshore Regulator/Metering Station Equipment and Piping
   - ☐ Onshore Pipeline, Including Valve Sites
   - ☐ Offshore Platform, Including Platform-mounted Equipment and Piping
   - ☐ Offshore Pipeline, Including Riser and Riser Bend

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

   ☐ Pipe ⇨ Specify: ○ Pipe Body ○ Pipe Seam PIPE_TYPE

   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 ⇨ Specify: PIPE_SEAM_TYPE
   - ○ Longitudinal ERW - High Frequency
   - ○ Longitudinal ERW - Low Frequency
   - ○ Longitudinal ERW – Unknown Frequency
   - ○ Spiral Welded ERW
   - ○ Lap Welded
   - ○ Single SAW
   - ○ DSAW
   - ○ Spiral Welded SAW
   - ○ Seamless
   - ○ Flash Welded
   - ○ Continuous Welded
   - ○ Furnace Butt Welded
   - ○ Spiral Welded DSAW
   - ○ 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 Incident 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 ⇨ Specify: WELD_SUBTYPE ○ 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 Incident.

   ☐ Valve ○ Mainline ⇨ Specify: VALVE_TYPE VALVE_MAINLINE_TYPE ○ 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

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

4. Year item involved in Incident was installed: INSTALLATION_YEAR

5. Material involved in Incident: *(select only one)* MATERIAL_INVOLVED
   - ☐ Carbon Steel
   - ☐ Plastic
   - ☐ Material other than Carbon Steel or Plastic ⇨ *Specify: _____ MATERIAL_DETAILS

RELEASE_TYPE

6. Type of Incident involved: *(select only one)*
   - ☐ Mechanical Puncture ⇨ Approx. size: /__/__/__/./__/in. (axial) by /__/__/__/./__/in. (circumferential) PUNCTURE_AXIAL PUNCTURE_CIRCUM
   - ☐ Leak ⇨ Select Type: ○ Pinhole ○ Crack ○ Connection Failure ○ Seal or Packing ○ Other LEAK_TYPE LEAK_TYPE_OTHER
   - ☐ Rupture ⇨ Select Orientation: ○ Circumferential ○ Longitudinal ○ Other _____ RUPTURE_ORIENT RUPTURE_DETAILS
     Approx. size: /__/__/__/./__/ in. (widest opening) by /__/__/__/./__/in. (length circumferentially or axially) RUPTURE_LENGTH RUPTURE_WIDTH
   - ☐ Other ⇨ *Describe: _____ RELEASE_TYPE_DETAILS

PART D – ADDITIONAL CONSEQUENCE INFORMATION

1. Class Location of Incident: *(select only one)* CLASS_LOCATION_TYPE
   - ☐ Class 1 Location
   - ☐ Class 2 Location
   - ☐ Class 3 Location
   - ☐ Class 4 Location

2. Did this Incident occur in a High Consequence Area (HCA)? COULD_BE_HCA
   - ☐ No
   - ☐ Yes ⇨ 2.a Specify the Method used to identify the HCA: ○ Method 1 ○ Method 2 DETERMINATION_METHOD

3. What is the PIR (Potential Impact Radius) for the location of this Incident? /__/,/__/__/__/ feet PIR_RADIUS
4. Were any structures outside the PIR impacted or otherwise damaged by heat/fire resulting from the Incident? ○ Yes ○ No HEAT_DAMAGE_IND
5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident? ○ Yes ○ No NON_HEAT_DAMAGE_IND
6. Were any of the fatalities or injuries reported for persons located outside the PIR? ○ Yes ○ No HCA_FATALITIES_IND

7. Estimated Property Damage:

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

7.b Estimated cost of Operator's property damage & repairs $ /__/__/__/,/__/__/__/,/__/__/__/ EST_COST_PROP_DAMAGE

7.c Estimated cost of Operator's emergency response $ /__/__/__/,/__/__/__/,/__/__/__/ EST_COST_EMERGENCY

7.d Estimated other costs $ /__/__/__/,/__/__/__/,/__/__/__/ EST_COST_OTHER
Describe _____ EST_COST_OTHER_DETAILS

7.e Total estimated property damage (sum of above) $ /__/__/__/,/__/__/__/,/__/__/__/

Cost of Gas Released

7.f Estimated cost of gas released unintentionally $ /__/__/__/,/__/__/__/,/__/__/__/ EST_COST_GAS_RELEASED

7.g Estimated cost of gas released during intentional and controlled blowdown $ /__/__/__/,/__/__/__/,/__/__/__/ EST_COST_INTENT_REL

7.h Total estimated cost of gas released (sum of 7.f & 7.g above) $ /__/__/__/,/__/__/__/,/__/__/__/

TOTAL_COST – Estimated Total Cost, sum of 7.a-d and 7.f-g

PART E – ADDITIONAL OPERATING INFORMATION

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

2. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig): /__/__/,/__/__/__/ MOP_PSIG

2a. MAOP established by 49 CFR section: MOP_CFR_SECTION

☐ 192.619 (a)(1) ☐ 192. 619 (a)(2) ☐ 192. 619 (a)(3) ☐ 192.619 (a)(4) ☐ 192. 619 (c) ☐ 192.619 (d)

☐ Other Specify Other: MOP_CFR_SECTION_DETAILS

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

☐ Pressure did not exceed MAOP

☐ Pressure exceeded MAOP, but did not exceed 110% of MAOP

☐ Pressure exceeded 110% of MAOP

4. Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), was the system or facility relating to the Incident operating under an established pressure restriction with pressure limits below those normally allowed by the MAOP ?

☐ 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 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)*

DIAMETER_CHANGE_IND ○ Changes in line pipe diameter

UNSUITABLE_MAINLINE_IND ○ Presence of unsuitable mainline valves

TIGHT_MITERED_IND ○ Tight or mitered pipe bends

OTHER_RESTRICTIONS_IND ○ Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.)

EXTRA_THICK_WALL_IND ○ Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)

○ 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? OPERATION_COMPLICATIONS_IND

☐ No

☐ 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

☐ Transmission System ☐ Transmission Line of Distribution System

☐ Type A Gathering ☐ Type B Gathering

☐ Storage Gathering ☐ Offshore Gathering

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

☐ No SCADA_IN_PLACE_IND

☐ Yes ⇨ 6.a Was it operating at the time of the Incident? ○ Yes ○ No SCADA_OPERATING_IND

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

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

ACCIDENT_IDENTIFIER

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

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

☐ Static Shut-in Test or Other Pressure or Leak Test

☐ Controller

☐ Air Patrol

☐ Notification from Public

☐ Notification from Third Party that caused the Incident

☐ Local Operating Personnel, including contractors

☐ Ground Patrol by Operator or its contractor

☐ Notification from Emergency Responder

☐ Other ACCIDENT_DETAILS

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

○ Operator employee ○ Contractor working for the Operator

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

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

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 Incident, 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 Incident, 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 Incident, and answer the questions on the right. Describe secondary, contributing, or root causes of the Incident 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 incident? UNDER_CATHODIC_PROTECTION_IND
     - ○ Yes ⇨ Year protection started: /___/___/___/___/ CATHODIC_PRO_START_YEAR
     - ○ No

     SHIELDING_EVIDENT

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

     CATHODIC_SURVEY_TYPE

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

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

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

     OTHER_CP_SURVEY_IND OTHER_CP_SURVEY_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, INT_EROSION_IND
   - ○ Corrosive Commodity ○ Water drop-out/Acid ○ Microbiological ○ Erosion
   - ○ Other _____ INT_OTHER_CORROSION_IND, INT_CORROSION_TYPE_DETAILS

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_DROP_OUT_LOC_IND
   - ○ Low point in pipe ○ Elbow ○ Drop-out
   - ○ Other _____ INT_OTHER_LOC_IND, CORROSION_LOCATION_DETAILS

CORROSION_INHIBITORS

10. Was the gas/fluid 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 Incident" (from PART C, Question 3) is Pipe or Weld

COR_INSPECT_TOOL_COLLECTED_IND

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

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

COR_MAGNETIC_FLUX_LEAKAGE_IND
O Magnetic Flux Leakage Tool / / / / / COR_MAGNETIC_FLUX_LEAKAGE_YEAR

COR_ULTRASONIC_IND
O Ultrasonic / / / / / COR_ULTRASONIC_YEAR

COR_GEOMETRY_IND
O Geometry / / / / / COR_GEOMETRY_YEAR

COR_CALIPER_IND
O Caliper / / / / / COR_CALIPER_YEAR

COR_CRACK_IND
O Crack / / / / / COR_CRACK_YEAR

COR_HARDSPOT_IND
O Hard Spot / / / / / COR_HARDSPOT_YEAR

COR_COMBINATION_TOOL_IND
O Combination Tool / / / / / COR_COMBINATION_TOOL_YEAR

COR_TRANSVERSE_FIELD_IND
O Transverse Field/Triaxial / / / / / COR_TRANSVERSE_FIELD_YEAR

COR_INSPECTION_OTHER_IND
O Other _____ / / / / / COR_INSPECTION_OTHER_YEAR

COR_INSPECTION_OTHER_DETAILS

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

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

COR_NON_DESTRUCTIVE_IND
17. Has one or more non-destructive examination been conducted at the point of the Incident since January 21, 2002?
O Yes O No

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

O Radiography / / / / / COR_RADIOGRAPHY_IND, COR_RADIOGRAPHY_YEAR
O Guided Wave Ultrasonic / / / / / COR_GUIDED_WAVE_IND, COR_GUIDED_WAVE_YEAR
O Handheld Ultrasonic Tool / / / / / COR_HANDHELD_ULTRA_IND, COR_HANDHELD_ULTRA_YEAR
O Wet Magnetic Particle Test / / / / / COR_WET_MAGNETIC_IND, COR_WET_MAGNETIC_YEAR
O Dry Magnetic Particle Test / / / / / COR_DRY_MAGNETIC_IND, COR_DRY_MAGNETIC_YEAR
O Other COR_NON_DEST_DETAILS / / / / / COR_NON_DEST_OTHER_IND, COR_NON_DEST_OTHER_YEAR

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

NATURAL_FORCE_TYPE

☐ **Earth Movement, NOT due to Heavy Rains/Floods**	EARTH_SUBTYPE 1. Specify: O Earthquake O Subsidence O Landslide O Other NF_OTHER_DETAILS
☐ **Heavy Rains/Floods**	HEAVY_RAINS_SUBTYPE 2. Specify: O Washout/Scouring O Flotation O Mudslide O Other NF_OTHER_DETAILS
☐ **Lightning**	LIGHTNING_SUBTYPE 3. Specify: O Direct hit O Secondary impact such as resulting nearby fires
☐ **Temperature**	TEMPERATURE_SUBTYPE 4. Specify: O Thermal Stress O Frost Heave O Frozen Components O 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 Incident generated in conjunction with an extreme weather event? O Yes O No

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

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

PARTY_TYPE

☐ **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 Incident" (from PART C, Question 3) is Pipe or Weld.

1. Has one or more internal inspection tool collected data at the point of the Incident?
O Yes O 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:

EX_MAGNETIC_FLUX_LEAKAGE_IND ⇨ O Magnetic Flux Leakage EX_MAGNETIC_FLUX_LEAKAGE_YEAR / / / / /
EX_ULTRASONIC_IND ⇨ O Ultrasonic / / / / / EX_ULTRASONIC_YEAR
EX_GEOMETRY_IND ⇨ O Geometry / / / / / EX_GEOMETRY_YEAR
EX_CALIPER_IND ⇨ O Caliper / / / / / EX_CALIPER_YEAR
EX_CRACK_IND ⇨ O Crack / / / / / EX_CRACK_YEAR
EX_HARDSPOT_IND ⇨ O Hard Spot / / / / / EX_HARDSPOT_YEAR
EX_COMBINATION_TOOL_IND ⇨ O Combination Tool / / / / / EX_COMBINATION_TOOL_YEAR
EX_TRANSVERSE_FIELD_IND ⇨ O Transverse Field/Triaxial / / / / / EX_TRANSVERSE_FIELD_YEAR
EX_INSPECTION_OTHER_IND ⇨ O Other EX_INSPECTION_OTHER_DETAILS _____ / / / / / EX_INSPECTION_OTHER_YEAR

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

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

O Yes ⇨ Most recent year tested: EX_HYDROTEST_CONDUCTED_YEAR / / / / /
Test pressure (psig): / / /, / / / / EX_HYDROTEST_PRESSURE
O No

EX_DIRECT_INSPECTION_TYPE

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 Incident
⇨ Most recent year conducted: EX_DIRECT_YES_DIG_YEAR / / / / /
O Yes, but the point of the Incident was not identified as a dig site
⇨ Most recent year conducted: / / / / / EX_DIRECT_YES_NO_DIG_YEAR
O No

5. Has one or more non-destructive examination been conducted at the point of the Incident 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 ⇨ O Radiograph / / / / EX_RADIOGRAPHY_YEAR
EX_GUIDED_WAVE_IND ⇨ O Guided Wave Ultrasonic / / / / EX_GUIDED_WAVE_YEAR
EX_HANDHELD_ULTRA_IND ⇨ O Handheld Ultrasonic Tool / / / / EX_HANDHELD_ULTRA_YEAR
EX_WET_MAGNETIC_IND ⇨ O Wet Magnetic Particle Test / / / / EX_WET_MAGNETIC_YEAR
EX_DRY_MAGNETIC_IND ⇨ O Dry Magnetic Particle Test / / / / EX_DRY_MAGNETIC_YEAR
EX_NON_DEST_OTHER_IND ⇨ O Other EX_NON_DEST_OTHER_DETAILS _____ / / / / EX_NON_DEST_OTHER_YEAR

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 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)? ○Yes ○ No NOTIFY_CGA_DIRT

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

PUBLIC_ROW_IND PUBLIC_SUBTYPE

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

☐ Private ⇨ Specify: ○ Private Landowner ○ Private Business ○ Private Easement PRIVATE_ROW_IND, PRIVATE_SUBTYPE

☐ 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

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

EXCAVATOR_EQUIPMENT

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)* WORK_PERFORMED

○ 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

ONE_CALL_NOTIFIED_IND

12. Was the One-Call Center notified? ○ Yes ○ 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

LOCATOR_TYPE

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

VISIBLE_MARKS

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

FACILITIES_MARKED

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

SERVICE_INTERRUPTION

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 SERVICE_INTERRUPTION_HOURS

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

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_SUBTYPE

☐ 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_SUBTYPE

☐ 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_SUBTYPE

☐ 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)* 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 Incident**

☐ **Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation**

VEHICLE_SUBTYPE

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**

OSF_HURRICANE_IND, OSF_TROPICAL_STORM_IND, OSF_TORNADO_IND

2. Select one or more of the following IF an extreme weather event was a factor:
   ○ Hurricane ○ Tropical Storm ○ Tornado
   ○ Heavy Rains/Flood ○ Other OSF_OTHER_WEATHER_IND
   OSF_HEAVY_RAINS_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 Incident" (from PART C, Question 3) is Pipe or Weld.

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

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

OSF_MAGNETIC_FLUX_LEAKAGE_YEAR

⇨ ○ Magnetic Flux Leakag OSF_MAGNETIC_FLUX_LEAKAGE_IND
⇨ ○ Ultrasonic OSF_ULTRASONIC_IND OSF_ULTRASONIC_YEAR
⇨ ○ Geometry OSF_GEOMETRY_IND OSF_GEOMETRY_YEAR
⇨ ○ Caliper OSF_CALIPER_IND OSF_CALIPER_YEAR
⇨ ○ Crack OSF_CRACK_IND OSF_CRACK_YEAR
⇨ ○ Hard Spot OSF_HARDSPOT_IND OSF_HARDSPOT_YEAR
⇨ ○ Combination Tool OSF_COMBINATION_TOOL_IND OSF_COMBINATION_TOOL_YEAR
⇨ ○ Transverse Field/Triaxial OSF_TRANSVERSE_FIELD_IND OSF_TRANSVERSE_FIELD_YEAR
⇨ ○ Other OSF_INSPECTION_OTHER_IND OSF_INSPECTION_OTHER_YEAR
OSF_INSPECTION_OTHER_DETAILS

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

OSF_HYDROTEST_CONDUCTED_IND

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

OSF_DIRECT_INSPECTION_TYPE

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 Incident
   ⇨ Most recent year conducted: OSF_DIRECT_YES_DIG_YEAR
   ○ Yes, but the point of the Incident was not identified as a dig site
   ⇨ Most recent year conducted: OSF_DIRECT_YES_NO_DIG_YEAR
   ○ No

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

	7. Has one or more non-destructive examination been conducted at the point of the Incident since January 1, 2002? OSF_NON_DESTRUCTIVE_IND O Yes O 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: OSF_RADIOGRAPHY_IND ⇨ O Radiography /__/__/__/__ OSF_RADIOGRAPHY_YEAR OSF_GUIDED_WAVE_IND ⇨ O Guided Wave Ultrasonic /__/__/__/__ OSF_GUIDED_WAVE_YEAR OSF_HANDHELD_ULTRA_IND ⇨ O Handheld Ultrasonic Tool /__/__/__/__ OSF_HANDHELD_ULTRA_YEAR OSF_WET_MAGNETIC_IND ⇨ O Wet Magnetic Particle Test /__/__/__/__ OSF_WET_MAGNETIC_YEAR OSF_DRY_MAGNETIC_IND ⇨ O Dry Magnetic Particle Test /__/__/__/__ OSF_DRY_MAGNETIC_YEAR OSF_NON_DEST_OTHER_IND ⇨ O Other OSF_NON_DEST_OTHER_DETAILS /__/__/__/__ OSF_NON_DEST_OTHER_YEAR
☐ **Intentional Damage**	8. Specify: INTENTIONAL_SUBTYPE O Vandalism O Terrorism O Theft of transported commodity O Theft of equipment O 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 Incident" (from PART C, Question 3) is "Pipe" or "Weld."

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

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

FIELD_EXAM_IND ☐ Field Examination METALLURGICAL_IND ☐ 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)*

PWJF_FAILURE_TYPE

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

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

FATIGUE_VIBR_RELATED_1, FATIGUE_VIBR_RELATED_2

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

☐ Fatigue- or Vibration-related: FAILURE_SUBTYPE_1, FAILURE_SUBTYPE_2

- ○ Mechanically-induced prior to installation (such as during transport of pipe)
- ○ Mechanical Vibration
- ○ Pressure-related
- ○ Thermal
- ○ Other FATIGUE_VIBR_RELATED_OTHER_1, FATIGUE_VIBR_RELATED_OTHER_2

☐ Mechanical Stress MECHANICAL_STRESS_1, MECHANICAL_STRESS_2

☐ Other OTHER_FACTOR_1, OTHER_FACTOR_2 OTHER_FACTOR_DETAILS_1 OTHER_FACTOR_DETAILS_2

☐ **Environmental Cracking-related**

STRESS_SUBTYPE

3. Specify: ○ Stress Corrosion Cracking ○ Sulfide Stress Cracking ○ 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 ADDITIONAL_LACK_FUSION_IND, ADDITIONAL_LAMINATION_IND, ADDITIONAL_BUCKLE_IND, ADDITIONAL_WRINKLE_IND PWF_ADDITIONAL_MISALIGN_IND, ADDITIONAL_BURNT_STEEL_IND

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

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

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

PWF_MAGNETIC_FLUX_LEAKAGE_IND

- ○ Magnetic Flux Leakage Tool / / / / / PWF_MAGNETIC_FLUX_LEAKAGE_YEAR
- ○ Ultrasonic PWF_ULTRASONIC_IND / / / / / PWF_ULTRASONIC_YEAR
- ○ Geometry PWF_GEOMETRY_IND / / / / / PWF_GEOMETRY_YEAR
- ○ Caliper PWF_CALIPER_IND / / / / / PWF_CALIPER_YEAR
- ○ Crack PWF_CRACK_IND / / / / / PWF_CRACK_YEAR
- ○ Hard Spot PWF_HARD_SPOT_IND / / / / / PWF_HARD_SPOT_YEAR
- ○ Combination Tool / / / / / PWF_COMBINATION_TOOL_IND, PWF_COMBINATION_TOOL_YEAR
- ○ Transverse Field/Triaxial / / / / / PWF_TRANSVERSE_FIELD_IND, PWF_TRANSVERSE_FIELD_YEAR
- ○ Other PWF_INSPECTION_OTHER_IND, / / / / / PWF_INSPECTION_OTHER_YEAR PWF_INSPECTION_OTHER_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 Incident?

○ Yes ⇨ *Most recent year tested: / / / / / PWF_HYDROTEST_CONDUCTED_YEAR *Test pressure (psig): / / /,/ / / / PWF_HYDROTEST_PRESSURE

○ No

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 Incident ⇨ Most recent year conducted: / / / / /

○ Yes, but the point of the incident was not identified as a dig site ⇨ Most recent year conducted: / / / / /

PWF_DIRECT_YES_NO_DIG_YEAR

○ No

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

○ Yes ○ No PWF_NON_DESTRUCTIVE_IND

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, PWF_RADIOGRAPHY_YEAR
- ○ Guided Wave Ultrasonic / / / / / PWF_GUIDED_WAVE_IND, PWF_GUIDED_WAVE_YEAR
- ○ Handheld Ultrasonic Tool / / / / / PWF_HANDHELD_ULTRA_IND, PWF_HANDHELD_ULTRA_YEAR
- ○ Wet Magnetic Particle Test / / / / / PWF_WET_MAGNETIC_IND, PWF_WET_MAGNETIC_YEAR
- ○ Dry Magnetic Particle Test / / / / / PWF_DRY_MAGNETIC_IND, PWF_DRY_MAGNETIC_YEAR
- ○ Other PWF_NON_DEST_OTHER_IND, / / / / / PWF_NON_DEST_OTHER_YEAR PWF_NON_DEST_OTHER_DETAILS

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

EQ_FAILURE_TYPE ☐ **Malfunction of Control/Relief Equipment** RELIEF_VALVE_IND PRESSURE_REGULATOR_IND OTHER_CONTROL_RELIEF_IND	CONTROL_VALVE_IND, INSTRUMENTATION_IND, SCADA_IND, COMMUNICATIONS_IND BLOCK_VALVE_IND, CHECK_VALVE_IND 1. Specify: *(select all that apply)* ○ Control Valve ○ Instrumentation ○ SCADA ○ Communications ○ Block Valve ○ Check Valve ⇨ ○ Relief Valve ○ Power Failure POWER_FAILURE_IND ○ Stopple/Control Fitting STOPPLE_CONTROL_FITTING_IND ⇨ ○ Pressure Regulator ○ ESD System Failure ⇨ ○ Other OTHER_CONTROL_RELIEF_DETAILS, ESD_SYSTEM_FAILURE_IND
☐ **Compressor or Compressor-related Equipment**	OTHER_PUMP_IND 2. Specify: ○ Seal/Packing Failure ○ Body Failure ○ Crack in Body ○ Appurtenance Failure ○ Pressure Vessel 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 compressor seal) or Packing ○ Other OTHER_NON_THREADED_DETAILS
☐ **Defective or Loose Tubing or Fitting**	
☐ **Failure of Equipment Body (except Compressor), Vessel Plate, or other Material**	
☐ **Other Equipment Failure**	5. Describe: EQ_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 gas/fluid ADDITIONAL_BREAKDOWN_IND
- ○ Valve vault or valve can contributed to the release ADDITIONAL_VALVE_IND
- ○ Alarm/status failure ADDITIONAL_ALARM_IND
- ○ Misalignment EQ_ADDITIONAL_MISALIGN_IND
- ○ Thermal stress EQ_ADDITIONAL_THERMAL_IND
- ○ 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**	
☐ **Underground Gas Storage, Pressure Vessel, or Cavern Allowed or Caused to Overpressure**	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 an 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 Incident related to: *(select all that apply)*
   - ○ Inadequate procedure RELATED_INADEQUATE_PROC_IND
   - ○ No procedure established RELATED_NO_PROC_IND
   - ○ Failure to follow procedure RELATED_FAILURE_FOLLOW_IND
   - ○ Other: RELATED_OTHER_IND, OPERATION_RELATED_DETAILS

4. What category type was the activity that caused the Incident: CATEGORY_TYPE
   - ○ Construction
   - ○ Commissioning
   - ○ Decommissioning
   - ○ Right-of-Way activities
   - ○ Routine maintenance
   - ○ Other maintenance
   - ○ Normal operating conditions
   - ○ Non-routine operating conditions (abnormal operations or emergencies)

OPERATOR_QUALIFICATION_IND

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

   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 Incident 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 Incident unknown ○ Still under investigation, cause of Incident to be determined* UNKNOWN_SUBTYPE *(*Supplemental Report required)*

PART H – NARRATIVE DESCRIPTION OF THE INCIDENT

(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

AUTHORIZER_NAME
Authorized Signer Name

PREPARED_DATE
Date

AUTHORIZER_TELEPHONE
Authorized Signer Telephone Number

AUTHORIZER_TITLE
Authorized Signer Title

AUTHORIZER_EMAIL
Authorized Signer E-mail Address

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

Field Name	Field Name Description
DATAFILE_AS_OF	*Data as of date*
SIGNIFICANT	*Identify if record meets the significant criteria or not: If there was fatality, injury, fire, explosion, total property damage $50K or more in 1984 dollars then SIGNIFICANT='YES', else SIGNIFICANT='NO'.*
IYEAR	*Year accident occurred, derived from accident date*
EST_COST_OPER_PAID_CURRENT	*Converted Property Damage to Current Year dollars*
EST_COST_INTENT_REL_CURRENT	*Converted Property Damage to Current Year dollars*
EST_COST_GAS_RELEASED_CURRENT	*Converted Property Damage to Current Year dollars*
EST_COST_PROP_DAMAGE_CURRENT	*Converted Property Damage to Current Year dollars*
EST_COST_EMERGENCY_CURRENT	*Converted Property Damage to Current Year dollars*
EST_COST_OTHER_CURRENT	*Converted Property Damage to Current Year dollars*
TOTAL_COST_IN84	*Converted Property Damage to 1984 dollars*
TOTAL_COST_CURRENT	*Converted Property Damage to Current Year dollars*
MAP_CAUSE	*Cause by PHMSA for 20 year accident trending*
MAP_SUBCAUSE	*SubCause by PHMSA for 20 year accident trending*
SERIOUS	*Identify if record meets the SERIOUS criteria or not: If there was fatality or injury then SERIOUS = 'YES' else SERIOUS = 'NO'.*
SYSTEM_TYPE	*System Type = 'UNGS (Underground Natural Gas Storage)' when Part C2 (SYSTEM_PART_INVOLVED) = 'Belowground Storage, Including Associated Equipment and Piping' and incident date is 01/01/2017 or later. For remaining reports, System Type = 'GT (Gas Transmission)' When Part E5f (PIPELINE_FUNCTION) = Transmission System, Transmission Line of Distribution System, or Storage Gathering. For remaining reports, System Type = 'GG (Gas Gathering)'*