

PART C – ORIGIN OF THE ACCIDENT (Check all that apply)

1. Additional location information
 a. Line segment name or ID _____
 b. Accident on Federal land other than Outer Continental Shelf Yes No
 c. Is pipeline interstate? Yes No

Offshore: Yes No (complete d if offshore)
 d. Area _____ Block # _____
 State /_____/ or Outer Continental Shelf

2. Location of system involved (check all that apply)
 Operator's Property
 Pipeline Right of Way
 High Consequence Area (HCA)?
 Describe HCA _____

3. Part of system involved in accident
 Above Ground Storage Tank
 Cavern or other below ground storage facility
 Pump/meter station; terminal/tank farm piping and equipment, including sumps
 Other Specify: _____

Onshore **pipeline**, including valve sites
 Offshore **pipeline**, including platforms

If failure occurred on **Pipeline**, complete items a - g:

4. Failure occurred on
 Body of Pipe Pipe Seam Scraper Trap
 Pump Sump Joint
 Component Valve Metering Facility
 Repair Sleeve Welded Fitting Bolted Fitting
 Girth Weld
 Other (specify) _____

Year the component that failed was installed: /_____/

5. Maximum operating pressure (MOP)
 a. Estimated pressure at point and time of accident: _____ PSIG
 b. MOP at time of accident: _____ PSIG
 c. Did an overpressurization occur relating to the accident?
 Yes No

a. Type of leak or rupture
 Leak: Pinhole Connection Failure (complete sec. H5)
 Puncture, diameter (inches) _____
 Rupture: Circumferential – Separation
 Longitudinal – Tear/Crack, length (inches) _____
 Propagation Length, total, both sides (feet) _____
 N/A
 Other _____

b. Type of block valve used for isolation of immediate section:
 Upstream: Manual Automatic Remote Control
 Check Valve
 Downstream: Manual Automatic Remote Control
 Check Valve

c. Length of segment isolated _____ ft
 d. Distance between valves _____ ft
 e. Is segment configured for internal inspection tools? Yes No
 f. Had there been an in-line inspection device run at the point of failure? Yes No Don't Know
 Not Possible due to physical constraints in the system
 g. If Yes, type of device run (check all that apply)
 High Resolution Magnetic Flux tool Year run: _____
 Low Resolution Magnetic Flux tool Year run: _____
 UT tool Year run: _____
 Geometry tool Year run: _____
 Caliper tool Year run: _____
 Crack tool Year run: _____
 Hard Spot tool Year run: _____
 Other tool Year run: _____

PART D – MATERIAL SPECIFICATION

1. Nominal pipe size (NPS) _____ / in.
 2. Wall thickness _____ / in.
 3. Specification _____ SMYS _____
 4. Seam type _____
 5. Valve type _____
 6. Manufactured by _____ in year /_____/

PART E – ENVIRONMENT

1. Area of accident In open ditch
 Under pavement Above ground
 Underground Under water
 Inside/under building Other _____

2. Depth of cover: _____ inches

PART F – CONSEQUENCES

1. Consequences (check and complete all that apply)
 a. Fatalities Injuries
 Number of operator employees: _____
 Contractor employees working for operator: _____
 General public: _____
Totals: _____
 b. Was pipeline/segment shutdown due to leak? Yes No
 If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited Yes No
 d. Explosion Yes No
 e. Evacuation (general public only) _____ / people
 Reason for Evacuation:
 Precautionary by company
 Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
 _____ / hr. _____ / min.

2. Environmental Impact
 a. Wildlife Impact: Fish/aquatic Yes No
 Birds Yes No
 Terrestrial Yes No
 b. Soil Contamination Yes No
 If Yes, estimated number of cubic yards: _____
 c. Long term impact assessment performed: Yes No
 d. Anticipated remediation Yes No
 If Yes, check all that apply: Surface water Groundwater Soil Vegetation Wildlife

e. Water Contamination: Yes No (If Yes, provide the following)
 Amount in water _____ barrels
 Ocean/Seawater No Yes
 Surface No Yes
 Groundwater No Yes
 Drinking water No Yes (If Yes, check below.)
 Private well Public water intake

PART G – LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? Yes No
2. Was the release initially detected by? (check one):
 CPM/SCADA-based system with leak detection
 Static shut-in test or other pressure or leak test
 Local operating personnel, procedures or equipment
 Remote operating personnel, including controllers
 Air patrol or ground surveillance
 A third party Other (specify) _____
3. Estimated leak duration days ____ hours ____

PART H – APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. See the instructions for guidance.

H1 – CORROSION

- | | | | |
|---|--|--|--|
| <p>1. External Corrosion</p> <p>2. Internal Corrosion</p> <p>(Complete items a – e where applicable.)</p> | <p>a. Pipe Coating
Bare
Coated</p> | <p>b. Visual Examination
Localized Pitting
General Corrosion
Other _____</p> | <p>c. Cause of Corrosion
Galvanic Atmospheric
Stray Current Microbiological
Cathodic Protection Disrupted
Stress Corrosion Cracking
Selective Seam Corrosion
Other _____</p> |
|---|--|--|--|
- d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
 No Yes, Year Protection Started: _____
- e. Was pipe previously damaged in the area of corrosion?
 No Yes => Estimated time prior to accident: / _____ / years / _____ / months Unknown

H2 – NATURAL FORCES

3. Earth Movement => Earthquake Subsidence Landslide Other _____
4. Lightning
5. Heavy Rains/Floods => Washouts Flotation Mudslide Scouring Other _____
6. Temperature => Thermal stress Frost heave Frozen components Other _____
7. High Winds

H3 – EXCAVATION DAMAGE

8. Operator Excavation Damage (including their contractors/Not Third Party)
9. Third Party (complete a-f)
- a. Excavator group
 General Public Government Excavator other than Operator/subcontractor
- b. Type: Road Work Pipeline Water Electric Sewer Phone/Cable
 Landowner-not farming related Farming Railroad
 Other liquid or gas transmission pipeline operator or their contractor
 Nautical Operations Other _____
- c. Excavation was: Open Trench Sub-strata (boring, directional drilling, etc...)
- d. Excavation was an ongoing activity (Month or longer) Yes No If Yes, Date of last contact / _____ /
- e. Did operator get prior notification of excavation activity?
 Yes; Date received: / _____ / mo. / _____ / day / _____ / yr. No
 Notification received from: One Call System Excavator Contractor Landowner
- f. Was pipeline marked as result of location request for excavation? No Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: Flags Stakes Paint
- ii. Permanent markings:
- iii. Marks were (check one) : Accurate Not Accurate
- iv. Were marks made within required time? Yes No

H4 – OTHER OUTSIDE FORCE DAMAGE

10. Fire/Explosion as primary cause of failure => Fire/Explosion cause: Man made Natural
11. Car, truck or other vehicle not relating to excavation activity damaging pipe
12. Rupture of Previously Damaged Pipe
13. Vandalism

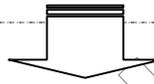
H5 – MATERIAL AND/OR WELD FAILURES

Material

- 14. Body of Pipe => Dent Gouge Bend Arc Burn Other _____
- 15. Component => Valve Fitting Vessel Extruded Outlet Other _____
- 16. Joint => Gasket O-Ring Threads Other _____

Weld

- 17. Butt => Pipe Fabrication Other _____
- 18. Fillet => Branch Hot Tap Fitting Repair Sleeve Other _____
- 19. Pipe Seam => LF ERW DSAW Seamless Flash Weld Other _____
HF ERW SAW Spiral



Complete a-g if you indicate **any** cause in part H5.

- a. Type of failure:
 - Construction Defect => Poor Workmanship Procedure not followed Poor Construction Procedures
 - Material Defect
- b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? Yes No
- c. Was part which leaked pressure tested before accident occurred? Yes, complete d-g No
- d. Date of test: _____ / yr. _____ / mo. _____ / day
- e. Test medium: Water Inert Gas Other _____
- f. Time held at test pressure: _____ / hr.
- g. Estimated test pressure at point of accident: _____ PSIG

H6 – EQUIPMENT

- 20. Malfunction of Control/Relief Equipment => Control-valve Instrumentation SCADA Communications
Block valve Relief valve Power failure Other _____
- 21. Threads Stripped, Broken Pipe Coupling => Nipples Valve Threads Dresser Couplings Other _____
- 22. Seal Failure => Gasket O-Ring Seal/Pump Packing Other _____

H7 – INCORRECT OPERATION

- 23. Incorrect Operation
 - a. Type: Inadequate Procedures Inadequate Safety Practices Failure to Follow Procedures
Other _____
 - b. Number of employees involved who failed a post-accident test: drug test: _____ / alcohol test: _____ /

H8 – OTHER

- 24. Miscellaneous, describe: _____
- 25. Unknown
Investigation Complete Still Under Investigation (submit a supplemental report when investigation is complete)

PART I – NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT (Attach additional sheets as necessary)

Blank area for narrative description of factors contributing to the event.