

PART C - ORIGIN OF THE INCIDENT

1. Incident occurred on **TYSYS_TEXT**
- Main Meter Set
- Service Line Other: **TYSISO**
- Pressure Limiting and Regulating Facility
2. Failure occurred on **PRTFL_TEXT**
- Body of pipe Pipe Seam
- Joint Component
- Other: **PRTFLO**

- MLKD_TEXT**
3. Material involved (*pipe, fitting, or other component*)
- Steel
- Cast/Wrought Iron
- Polyethylene Plastic (complete all items that apply in a-c)
- Other Plastic (complete all items that apply in a-c)
- Plastic failure was: a. ductile b. brittle c. joint failure
- Other material: **MLKDO** **PLAS_DUCT**, **PLAS_BRIT**, **PLAS_JNT**
4. Year the pipe or component which failed was installed: / / / /
- PRTYR**

PART D - MATERIAL SPECIFICATION (if applicable)

1. Nominal pipe size (*NPS*) **NPS** / / / / in.
2. Wall thickness **WALLTHK** / / / / in. **SMYS**
3. Specification **SPEC** **SMYS** / / / / /
4. Seam type **SEAM**
5. Valve type **VALVE**
6. Pipe or valve manufactured by **MANU** in year / / / /
- MANYR**

PART E - ENVIRONMENT

1. Area of incident In open ditch **LOCKL_TEXT**
- Under pavement Above ground
- Under ground Under water
- Inside/under building Other: **LOCKLO**
2. Depth of cover: **DEPTH_COV** inches

PART F - APPARENT CAUSE

Important: There are 25 numbered causes in this section. Check the box to the left of the primary cause of the incident. Check one circle in each of the supplemental items to the right of or below the cause you indicate. See the instructions for this form for guidance. CAUSE CAUSE_DETAILS

F1 - CORROSION

If either F1 (1) External Corrosion, or F1 (2) Internal Corrosion is checked, complete all subparts a - e.

1. External Corrosion
2. Internal Corrosion
- PIPE_COAT_TEXT**
- a. Pipe Coating
- Bare Coated Unknown
- VIS_EXAM_TEXT**
- b. Visual Examination
- Localized Pitting
- General Corrosion
- Other: **VIS_EXAMO**
- COR_CAUSE_TEXT**
- c. Cause of Corrosion
- Galvanic Stray Current
- Improper Cathodic Protection
- Microbiological
- Other: **COR_CAUSEO**
- d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering incident?
- No Yes Unknown **PROT_TEXT** **CPYR** Year Protection Started: / / / /
- e. Was pipe previously damaged in the area of corrosion? **PREV_DAM** **PREV_DAM_YR** **PREV_DAM_MO**
- No Yes Unknown How long prior to incident: / / / / years / / / / months

F2 - NATURAL FORCES

3. Earth Movement ⇒ **EARTH_MOVE_TEXT**
- Earthquake Subsidence Landslide Other: **EARTH_MOVED**
4. Lightning
5. Heavy Rains/Floods ⇒ **FLOODS_TEXT**
- Washouts Flotation Mudslide Scouring Other: **FLOODSO**
6. Temperature ⇒ **TEMPER_TEXT**
- Thermal stress Frost heave Frozen components Other: **TEMPERO**
7. High Winds

F3 - EXCAVATION

8. Operator Excavation Damage (*including their contractors*) / Not Third Party
9. Third Party Excavation Damage (*complete a-d*)
- a. Excavator group **THIRD_PARTY_GRP_TEXT**
- General Public Government Excavator other than Operator/subcontractor
- THIRD_PARTY_TYPE_TEXT**
- b. Type: Road Work Pipeline Water Electric Sewer Phone/Cable/Fiber Landowner Railroad
- Building Construction Other: **THIRD_PARTY_TYPEO**
- NOTIF** c. Did operator get prior notification of excavation activity? **NOTIF_DATE**
- No Yes: Date received: / / mo. / / day / / yr. **NOTIF_RCVD_TEXT**
- NOTIF_RCVD** Notification received from: One Call System Excavator General Contractor Landowner
- MARKED** d. Was pipeline marked?
- No Yes (*If Yes, check applicable items i - iv*)
- TEMP_MARK_TEXT** i. Temporary markings: Flags Stakes Paint
- PERM_MARK** ii. Permanent markings: Yes No
- ACC_MARK_TEXT** iii. Marks were (*check one*) Accurate Not Accurate
- MKD_IN_TIME** iv. Were marks made within required time? Yes No

F4 - OTHER OUTSIDE FORCE DAMAGE **FIRE_EXPLO_TEXT**

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

F5 – MATERIAL OR WELDS

Material

14. Body of Pipe ⇒ Dent Gouge Wrinkle Bend Arc Burn Other: PIPE_BODYO
15. Component ⇒ Valve Fitting Vessel Extruded Outlet Other: COMPONENTO
16. Joint ⇒ Gasket O-Ring Threads Fusion Other: JOINTO

Weld

17. Butt ⇒ Pipe Fabrication Other: BUTTO
18. Fillet ⇒ Branch Hot Tap Fitting Repair Sleeve Other: FILLETO
19. Pipe Seam ⇒ LF ERW DSAW Seamless Flash Weld Other: PIPE_SEAMO
- HF ERW SAW Spiral

Complete a-f if you indicate **any** cause in part F5.



- FAIL_TYPMAT** **FAIL_TYPECONS**
- a. Type of failure:
- Construction Defect ⇒ Poor Workmanship Procedure not followed Poor Construction Procedures
- Material Defect ⇒ Poor Workmanship Procedure not followed Poor Construction Procedures
- CONS_DEF_TEXT**
- 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 incident occurred? Yes, complete d-f, if known No **PRS_TEST**
- d. Date of test: TEST_MO / TEST_DAY / TEST_YR mo. / day / yr.
- e. Time held at test pressure: TEST_TP hr.
- f. Estimated test pressure at point of incident: TEST_PRS PSIG

F6 – EQUIPMENT OR OPERATIONS

20. Malfunction of Control/Relief Equipment ⇒ Valve Instrumentation Pressure Regulator Other: MALFUNCO
21. Threads Stripped, Broken Pipe Coupling ⇒ Nipples Valve Threads Mechanical Couplings Other: THREADSO
22. Leaking Seals

23. Incorrect Operation **IO_TYPE_TEXT**
- a. Type: Inadequate Procedures Inadequate Safety Practices Failure to Follow Procedures Other: IO_TYPEO
- b. Number of employees involved in incident who failed post-incident drug test: IO_DRUG Alcohol test: IO_ALCO
- c. Was person involved in incident qualified per OQ rule? Yes No **IO_QUAL** d. Hours on duty for person involved: IO_QUAL_HRS

F7 – OTHER

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

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

NARRATIVE

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

| Field Name | Field Name Description |
|---------------------------|---|
| DATAFILE_AS_OF | <i>Data as of date</i> |
| FF | <i>Identify if incident was cause by fire first or not</i> |
| SIGNIFICANT | <i>Identify if record meets the significant criteria or not: If there was fatality, injury, or total property damage is \$50K or more in 1984 dollars, then SIGNIFICANT='YES', else SIGNIFICANT='NO'. If FF criteria is true then SIGNIFICANT = 'NO'.</i> |
| IYEAR | <i>Year incident occurred, derived from incident date</i> |
| TOTAL_COST_IN84 | <i>Converted Property Damage to 1984 dollars</i> |
| TOTAL_COST_CURRENT | <i>Converted Property Damage to Current Year dollars</i> |
| GASPRPCURRENT | <i>Converted Property Damage to Current Year dollars</i> |
| OPPRPCURRENT | <i>Converted Property Damage to Current Year dollars</i> |
| PPPRPCURRENT | <i>Converted Property Damage to Current Year dollars</i> |
| MAP_CAUSE | <i>Cause by PHMSA for 20 year incident trending</i> |
| MAP_SUBCAUSE | <i>SubCause by PHMSA for 20 year incident trending</i> |
| SERIOUS | <i>Identify if record meets the SERIOUS criteria or not: If there was fatality or injury and if FF criteria is false then SERIOUS = 'YES' else SERIOUS = 'NO'.</i> |