

ACCIDENT REPORT – HAZARDOUS LIQUID PIPELINE SYSTEMS

December 19, 2005

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

Report format corresponds to Form PHMSA F 7000-1 (01-2001)

No.

Original Report Date

20050370 - 3954

| PART A – GEI | NERAL INFORMA | TION | | | |
|--|------------------------|-------------------|------------------------|-------|--------------|
| Ν | Original Report | Υ | Supplemental Report | Y | Final Report |
| | Last Revision Date | | 02/23/2006 | | |
| 1. Operator Nar | me and Address | | | | |
| a. Operator's | 5-digit Identification | Number | 31189 | | |
| b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if known) | | | | | |
| c. Name of Op | perator | | BP PIPELINES, N. | A. | |
| d. Operator st | reet address | | 28100 TORCH PAI | RKWAY | |
| e. Operator ac City | ddress | | WARRENVILLE | | |
| | (| County or Parish | DUPAGE | | |
| | | State | IL | | |
| | | Zip code | 60555 | | |
| 2. Time and dat | e of the accident | | 1 | | |
| | | Hour | | | |
| | | e of the accident | 11/23/2005 | | |
| 3. Location of a | locident | | Γ | | |
| a. Latitude | | | 36 57.516 | | |
| Longitude | | | 08716.631 | | |
| b. City | | | HOPKINSVILLE | | |
| County or F | Parish | | TODD | | |
| c. State | | | KY | | |
| Zip Code | | | 42240 | | |
| d. Mile Post/V | | | 349.71 | | |
| Survey Stat | | | 18464+52 | | |
| 4. Telephone R | | | | | |
| NRC Report N | lumber | | 780443 | | |
| Date | | | 11/23/2005 | | |
| 5. Losses (Esti | | | | | |
| | nity Losses reimbu | | | | |
| • | property damage | \$ | 0 | | |
| | ency response phas | | 400000 | | |
| - | nmental remediatior | , | 600000 | | |
| Other Costs | | \$ | 0 | | |
| Describe | | | | | |
| Operator Losse | | | [| | |
| Value of produ | | \$ | 0 | | |
| | ator property damag | | 0 | | |
| Other Costs | | \$ | 0 | | |
| Describe | | * | | | |
| Total Costs | | \$ | 1000000 | | |
| 6. Commodity S | | | | | |
| Commodity sp | oilled (yes/no) | | Y | | |

| a. Name of commodity spilled | XYLENE | |
|---|---|--|
| b. Classification of commodity spilled | GASOLINE, DIESEL, FUEL OIL OR OTHER PETROLEUM PRODUCT WHICH IS A LIQUID AT AMBIENT CONDITIONS | |
| c. Estimated amount of commodity involved | | |
| Unit of Measure | BARRELS | |
| Amount Spilled | 250.00 | |
| Amount Recovered | 100.00 | |
| CAUSES FOR SMALL SPILLS | NO DATA | |

| PART B – PREPARER AND AUTHORIZED SIGNATURE | | |
|--|----------------------|--|
| Preparer's Name | LARRY ABRAHAM | |
| Area Code and Telephone Number | 6308363491 | |
| Preparer's E-mail Address | LARRY.ABRAHAM@BP.COM | |
| Area Code and Facsimile Number | 6308363582 | |

| PART C – ORIGIN OF THE ACCIDENT | | |
|---|---|--|
| 1. Additional location information | | |
| a. Line segment name or ID | XYLENE SYSTEM | |
| b. Accident on Federal Land other than Outer Continental Shelf | NO | |
| c. Is pipeline Interstate | Y | |
| Offshore | Ν | |
| d. Area | | |
| Block # | | |
| State | | |
| Outer Continental Shelf | | |
| 2. Location of system involved | | |
| Operator's Property | NO | |
| Pipeline Right of Way | Υ | |
| High Consequence Area (HCA) | Y | |
| Describe HCA | WATER | |
| 3. Part of system involved in accident | ONSHORE PIPELINE, INCLUDING VALVE SITES | |
| Other (specify) | | |
| If failure occurred on Pipeline, complete items a-g | l | |
| a. Leak or Rupture | RUPTURE | |
| Type of Leak | | |
| - Puncture, diameter <i>(inches)</i> | | |
| Type of Rupture | LONGITUDINAL-TEAR/CRACK | |
| - Tear/Crack, length <i>(inches)</i> | 3 | |
| - Propagation Length, total, both sides (feet) | 5 | |
| Other (specify) | | |
| b. Type of block valve used for isolation immediate | section | |
| Upstream | | |
| Manual | NO | |
| Automatic | YES | |
| Remote Control | NO | |
| Check Valve | NO | |
| Downstream | | |
| Manual | YES | |
| Automatic | NO | |
| Remote Control | NO | |
| Check Valve | NO | |
| c. Length of segment isolated (ft) | 42240 | |
| d. Distance between valves (ft) | 42240 | |

| e. Is segment configured tools? | d for internal inspection | YES | |
|---|-----------------------------|--------------|------|
| f. Had there been an in- at the point of failure? | line inspection device run | YES | |
| g. If Yes, type of device | run | | |
| High Resolution Magnetic Flux tool | YES | Year run | 2005 |
| Low Resolution Magnetic Flux tool | NO | Year run | |
| UT tool | NO | Year run | |
| Geometry tool | YES | Year run | 2004 |
| Caliper tool | YES | Year run | 2004 |
| Crack tool | NO | Year run | |
| Hard Spot tool | NO | Year run | |
| Other tool | NO | Year run | |
| 4. Failure occurred on | | BODY OF PIPE | |
| Other (specify) | | | |
| Year the component that | t failed was installed | 1977 | |
| 5. Maximum operating pressure (MOP) | | | |
| a. Estimated pressure at point and time of accident (PSIG) | | 272 | |
| b. MOP at time of accid | lent (PSIG) | 1422 | |
| c. Did an over pressuriz accident? | ation occur relating to the | Ν | |

| PART D – MATERIAL SPECIFICATION | | |
|---------------------------------|----------|---------------------|
| 1. Nominal pipe size (NPS) | (inches) | 8 |
| 2. Wall thickness | (inches) | 0.28 |
| 3. Specification | | GRADE B (X-42) |
| | SMYS | 35000 |
| 4. Seam type | | SEAMLESS |
| 5. Valve type | | X |
| 6. Manufactured by | | IPSCO TUBULERS INC. |
| | in year | 1977 |
| PART E – ENVIRONMENT | | |
| 1. Area of accident | | UNDER GROUND |
| Other (specify) | | |
| 2. Depth of cover | (inches) | 36 |

| PART F – CONSEQUENCES | | | |
|-------------------------------------|-------------------------|--------------------|----------|
| 1. Consequences | | Fatalities | Injuries |
| a. Number of operator e | mployees | 0 | 0 |
| Contractor employees w | orking for operator | | |
| General public | | 0 | 0 |
| Totals | | 0 | 0 |
| b. Was pipeline/segmen | t shutdown due to leak? | N | |
| If Yes, how long? | Days | | |
| | Hours | | |
| Minutes | | | |
| c. Product ignited | | Gas did not Ignite | |
| d. Explosion | | NO EXPLOSION | |
| e. Evacuation (general public only) | | Ν | |
| | Number of people | | |

| Reason for Evacuation | |
|--|-----|
| f. Elapsed time until area was made safe | |
| Hours | 12 |
| Minutes | 30 |
| 2. Environmental Impact | |
| a. Wildlife Impact | |
| Fish/aquatic | Y |
| Birds | Y |
| Terrestrial | Ν |
| b. Soil Contamination | Y |
| If Yes, estimated number of cubic yards | 20 |
| c. Long term impact assessment performed | Y |
| d. Anticipated remediation | Y |
| If Yes, check all that apply | |
| Surface Water | Y |
| Groundwater | Ν |
| Soil | Y |
| Vegetation | Ν |
| Wildlife | Ν |
| e. Water Contamination | Y |
| Amount in water (barrels) | 125 |
| Ocean/Seawater | Ν |
| Surface | Y |
| Groundwater | Ν |
| Drinking water | Ν |
| Drinking water source | |

| PART G – LEAK DETECTION INFORMATION | |
|---|-----------------|
| 1. Computer based leak detection capability in place? | Ν |
| 2. Was the release initially detected by? | OTHER |
| Other (specify) | 3RD PARTY TILER |
| 3. Estimated leak duration Days | 0 |
| Hours | 12 |

PART H – APPARENT CAUSE

| H1 – CORROSION | |
|--|--|
| 1. External Corrosion | |
| 2. Internal Corrosion | |
| Complete items a-e where applicable | |
| a. Pipe Coating | |
| b. Visual Examination | |
| Other (specify) | |
| c. Cause of Corrosion | |
| Other (specify) | |
| d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? | |
| Year Protection Started | |
| e. Was pipe previously damaged in the area of corrosion? | |
| Estimated time prior to accident Years | |
| Months | |
| H2 – NATURAL FORCES | |

| 3. Earth Movement | |
|--|--|
| Description | |
| Other (specify) | |
| | |
| 4. Lightning 5. Heavy Rains/Floods | |
| • | |
| Description | |
| Other (specify) | |
| 6. Temperature | |
| Description | |
| Other (specify) | |
| 7. High Winds | |
| H3 – EXCAVATION DAMAGE | |
| Operator Excavation Damage (including their contractors / Not Third Party) | |
| 9. Third Party | Yes |
| a. Excavator group | EXCAVATOR OTHER THAN OPERATOR/SUBCONTRACTOR |
| b. Type | LANDOWNER |
| Other (specify) | |
| c. Excavation was | OPEN TRENCH |
| d. Excavation was ongoing activity (Month or longer) | |
| If Yes, Date of last contact | |
| e. Did operator get prior notification of excavation activity? | N |
| If Yes; Date received | |
| Notification received from | |
| f. Was pipeline marked? | N |
| i. Temporary markings | |
| ii. Permanent markings | |
| iii. Marks were | |
| iv. Were marks made within required time? | |
| H4 – OTHER OUTSIDE FORCE DAMAGE | |
| 10. Fire/Explosion as primary cause of failure | |
| Fire/Explosion cause | |
| 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 | |
| Description | |
| Other (specify) | |
| 15. Component | |
| | |
| Description | |
| Other (specify) | |
| 16. Joint | |
| Description | |
| Other (specify) | |
| Weld | |
| 17. Butt | |
| Description | |
| Other (specify) | |
| 18. Fillet | |
| Description | |

| Other (specify) | |
|--|---|
| 19. Pipe Seam | |
| Description | |
| Other (specify) | |
| Complete a-g if you indicate any cause in part H5 | |
| a. Type of failure | 1 |
| Construction Defect | NO DATA |
| Description | |
| Material Defect | NO DATA |
| b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? | |
| c. Was part which leaked pressure tested before accident occurred? | |
| d. Date of test | |
| Year | |
| Month | |
| Day | |
| e. Test medium | |
| Other (specify) | |
| f. Time held at test pressure (hr) | |
| g. Estimated test pressure at point of incident (PSIG) | |
| H6 – EQUIPMENT | |
| 20. Malfunction of Control/Relief Equipment | |
| Description | |
| Other (specify) | |
| 21. Threads Stripped, Broken Pipe Coupling | |
| Description | |
| Other (specify) | |
| 22. Seal Failure | |
| Description | |
| Other (specify) | |
| H7 – INCORRECT OPERATION | |
| 23. Incorrect Operation | |
| а. Туре | |
| Other (specify) | |
| b. Number of employees involved who failed a post- | accident test |
| Drug test | |
| Alcohol test | |
| H8 - OTHER | |
| 24. Miscellaneous | |
| Describe | |
| 25. Unknown | |
| Describe | |
| PART I – NARRATIVE DESCRIPTION OF FACTORS | CONTRIBUTING TO THE EVENT |
| A THIRD PARTY CONTRACTOR INSTALLING AGRICULTU RUPTURED XYLENE PIPELINE CAUSING AN IMMEDIATE | IRAL FIELD DRAIN TILE SYSTEM STRUCK AND |