ACCIDENT REPORT – HAZARDOUS LIQUID PIPELINE SYSTEMS

U.S. Department of Transportation
Research and Special Programs
Administration

Report Date _____ **DOR** _____

No. _____ **RPTID** _____
(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 Office Of Pipeline Safety Web Page at http://ops.dot.gov.* **REPORT_TYPE**

PART A – GENERAL REPORT INFORMATION

Check: ☐ **Original Report** ☐ **Supplemental Report** ☐ **Final Report**

1. a. Operator's OPS 5-digit Identification Number (if known) /__/__**OPERATOR_ID**__/__/__/__/
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if known) **OWNER_OPERATOR_ID** /__/__/__/__/__/
   c. Name of Operator _____ **NAME** _____
   d. Operator street address _____ **OPSTREET** _____
   e. Operator address _____ **OPCITY** **OPCOUNTY** **OPSTATE** **OPZIP** _____
      City, County, State and Zip Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident **IDATE**

/__/__/ **IHOUR** /__/__/ /__/__/ /__/__/
hr. month day year

3. Location of accident
   (If offshore, do not complete a through d. See Part C.1)

   a. Latitude: **LATITUDE** Longitude: **LONGITUDE**
   (if not available, see instructions for how to provide specific location)

   b. **ACCITY** **ACCOUNTY**
      City, and County or Parish

   c. **ACSTATE** **ACZIP**
      State and Zip Code

   MPVST **SURNO**
   d. Mile post/valve station ○ or survey station no. ○
      (whichever gives more accurate location)

   _____

4. Telephone report **TELRN** **TELDT**

/__/__/__/__/__/ /__/__/ /__/__/ /__/__/
NRC Report Number month day year

5. Losses *(Estimated)*

   Public/Community Losses reimbursed by operator:

   Public/private property damage $**PPPRP**_____
   Cost of emergency response phase $**EMRPRP**_____
   Cost of environmental remediation $**ENVPRP**_____
   Other Costs $**OPCPRP**_____
    (describe) _____ **OPCPRPO** _____

   Operator Losses:

   Value of product lost $**PRODPRP**_____
   Value of operator property damage $**OPPRP**_____
   Other Costs $**OOPPRP**_____
    (describe) _____ **OOPPRPO** _____
   Total Costs $**TOTAL_COST**_____

6. Commodity Spilled ○ Yes ○ No **SPILLED**
(If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled _____ **COMM** _____
   b. Classification of commodity spilled: **CLASS_TEXT**
      ○ HVLs /other flammable or toxic fluid which is a gas at ambient conditions
      ○ CO_2/ N_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditions
      ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
      ○ Crude oil

   c. **Estimated amount of commodity involved :** **SPUNIT_TEXT**
      ○ **Barrels**
      ○ **Gallons (check only if spill is less than one barrel)**

   Amounts:
      Spilled : _____ **LOSS** _____

      Recovered: _____ **RECOV** _____

CAUSES FOR SMALL SPILLS ONLY (5 gallons to under 5 barrels) :

(For large spills [5 barrels or greater] see Part H)

CAUSE
○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Outside Force Damage**

○ **Material and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B – PREPARER AND AUTHORIZED SIGNATURE

PNAME **PHONE**
(type or print) Preparer's Name and Title Area Code and Telephone Number

PEMAIL
Preparer's E-mail Address Area Code and Facsimile Number

Authorized Signature (type or print) Name and Title Date Area Code and Telephone Number

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

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

OFFSHORE
Offshore: ○ Yes ○ No *(complete d if offshore)*

   d. Area _____ OFFAREA _____   Block # ___ BNUMB ___

   State _/ _/ _/   or Outer Continental Shelf ☐ OCS
   OFFST

2. Location of system involved *(check all that apply)*
   ☐ Operator's Property   OPPROP
   ☐ Pipeline Right of Way   PIPEROW
   ☐ High Consequence Area (HCA)?   HCA
      Describe HCA_____ HCADESC

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

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

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

4. Failure occurred on   FAIL_OC_TEXT
   ○ Body of Pipe   ○ Pipe Seam   ○ Scraper Trap
   ○ Pump   ○ Sump   ○ Joint
   ○ Component   ○ Valve   ○ Metering Facility
   ○ Repair Sleeve   ○ Welded Fitting   ○ Bolted Fitting
   ○ Girth Weld
   Other *(specify)* _____ FAIL_OCO
   Year the component that failed was installed: _/ _/ _/ _/   PRTYR
5. Maximum operating pressure *(MOP)*
   a. Estimated pressure at point and time of accident:
      ___ INC_PRS ___ *PSIG*
   b. MOP at time of accident:
      ___ MOP ___ *PSIG*
   c. Did an overpressurization occur relating to the accident?
      ○ Yes ○ No   OPRS

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

   b. Type of block valve used for isolation of immediate section:
   Upstream: **M** ☐ Manual **A** ☐ Automatic **R** ☐ Remote Control
   UBLKV *   **C** ☐ Check Valve
   Downstream: **M** ☐ Manual   **A** ☐ Automatic **R** ☐ Remote Control
   DBLKV *   **C** ☐ Check Valve

   c. Length of segment isolated   SEGISO   ft
   d. Distance between valves   VLVDIST   ft   SEGCONF
   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   INLINE_TEXT
            ○ 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: DRHRMFY
      DRHRMF
      ☐ Low Resolution Magnetic Flux tool   Year run: DRLRMFY
      DRLRMF
      ☐ UT tool   DRUT   Year run: DRUTY
      ☐ Geometry tool   DRGEO   Year run: DRGEOY
      ☐ Caliper tool   DRCAL   Year run: DRCALY
      ☐ Crack tool   DRCRK   Year run: DRCRKY
      ☐ Hard Spot tool   DRHARD   Year run: DRHARDY
      ☐ Other tool   DROTH   Year run: DROTHY

PART D – MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)*   NPS   _/ _/ _/ _/ in.
2. Wall thickness   WALLTHK   _/ _/ _/ _/ in.
3. Specification ___ SPEC ___   SMYS _/ _/ _/ _/ _/ _/
   SMYS
4. Seam type ___ SEAM ___
5. Valve type ___ VALVE ___   MANYR
6. Manufactured by ___ MANU ___ in year _/ _/ _/ _/

PART E – ENVIRONMENT

1. Area of accident   LOCLK_TEXT
   ○ Under pavement   ○ In open ditch
   ○ Under pavement   ○ Above ground
   ○ Underground   ○ Under water
   ○ Inside/under building   ○ Other ___ LOCLKO ___

2. Depth of cover: ___ DEPTH_COV ___ inches

PART F – CONSEQUENCES

1. Consequences *(check and complete all that apply)*

	Fatalities	Injuries
a.		
Number of operator employees:	EFAT	EINJ
Contractor employees working for operator:	NFAT	NINJ
General public:	GPFAT	GPINJ
Totals:	FATAL	INJURE

   c. Product ignited ○Yes ○ No   d. Explosion ○Yes ○ No
   IGNITE   EXPLO
   e. ☐ Evacuation *(general public only)* _/ _/ _/ _/ people
   EVAC   EVACNO
      Reason for Evacuation: EVAC_REASON_TEXT
      ○ Precautionary by company
      ○ Evacuation required or initiated by public official

   b. Was pipeline/segment shutdown due to leak? ○Yes ○ No
   SHUTDOWN
   If Yes, how long? SHUTDAY days ___ SHUTHR hours ___ SHUTMIN minutes

   f. Elapsed time until area was made safe:
   STHH _/ _/ hr.   _/ _/ min.   STMN

2. Environmental Impact
   a. Wildlife Impact: Fish/aquatic ○ Yes ○ No   FISH
                        Birds ○ Yes ○ No   BIRDS
                        Terrestrial ○ Yes ○ No   TERRESTRIAL
   b. Soil Contamination ○ Yes ○ No   SOIL
      If Yes, estimated number of cubic yards: ___ SOIL_YRD ___
   c. Long term impact assessment performed: ○ Yes ○ No   IMPACT
   d. Anticipated remediation ○ Yes ○ No   REMEDIAL
      If Yes, check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife
      RSURFACE   RGROUND   RSOIL   RVEG   RWILD

   e. Water Contamination: ○ Yes ○ No *(If Yes, provide the following)*
   WATER
      Amount in water _____ barrels   AMT_IN_WATER
      Ocean/Seawater ○ No   ○ Yes   OCEAN
      Surface ○ No   ○ Yes   SURFACE
      Groundwater ○ No   ○ Yes   GROUNDW
      Drinking water ○ No   ○ Yes *(If Yes, check below.)* DRINK
      ○ Private well ○ Public water intake
      DRINKSRC_TEXT

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PART G – LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place?　○ Yes　○ No　**COMP_BASED**

2. Was the release initially detected by? (check one):
DETECTED_TEXT
- ○ 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) ___**DETECTEDO**___

3. Estimated leak duration　days ____ **DURLEAK_DAY**　hours ____ **DURLEAK_HR**

PART H – APPARENT CAUSE
CAUSE_DETAILS

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

1. ☐ External Corrosion

2. ☐ Internal Corrosion

(Complete items a – e where applicable.)

a. Pipe Coating **PIPE_COAT_TEXT**
- ○ Bare
- ○ Coated

b. Visual Examination **VIS_EXAM_TEXT**
- ○ Localized Pitting
- ○ General Corrosion
- ○ Other ____**VIS_EXAMO**____

c. Cause of Corrosion **COR_CAUSE_TEXT**
- ○ Galvanic　　○ Atmospheric
- ○ Stray Current　○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ○ Selective Seam Corrosion
- ○ Other _____**COR_CAUSEO**_____

PROT
d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No　○ Yes, Year Protection Started: / / / / / **CPYR**

PREV_DAM
e. Was pipe previously damaged in the area of corrosion?
○ No　○ Yes ⇒ Estimated time prior to accident: / / / years / / months *Unknown* ☐ **PREV_DAM_UK**
PREV_DAM_YR　**PREV_DAM_MO**

H2 – NATURAL FORCES

3. ☐ Earth Movement　⇒ ○ Earthquake **EARTH_MOVE_TEXT**　○ Subsidence　○ Landslide　○ Other _____**EARTH_MOVEO**_____

4. ☐ Lightning

5. ☐ Heavy Rains/Floods ⇒ ○ Washouts **FLOODS_TEXT**　○ Flotation　○ Mudslide　○ Scouring　○ Other **FLOODSO**

6. ☐ Temperature　⇒ ○ Thermal stress **TEMPER_TEXT**　○ Frost heave　○ Frozen components　○ Other **TEMPERO**

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 **THIRD_PARTY_GRP_TEXT**
　○ General Public　○ Government　○ Excavator other than Operator/subcontractor

b. Type: **THIRD_PARTY_TYPE_TEXT**　○ 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 _____**THIRD_PARTY_TYPEO**_____

c. Excavation was: ○ Open Trench **EXCAV_TYPE_TEXT**　○ Sub-strata (boring, directional drilling, etc…)

d. Excavation was an ongoing activity (Month or longer) ○ Yes **EXCAV_ON**　○ No　　If Yes, Date of last contact / / / **EXCAV_LAST_CONTACT**

e. Did operator get prior notification of excavation activity? **NOTIF**
　○ Yes; Date received: / / mo. **NOTIF_DATE** / / day / / / yr.　○ No
　Notification received from: ○ One Call System　○ Excavator　○ Contractor　○ Landowner **NOTIF_RCVD_TEXT**

f. Was pipeline marked as result of location request for excavation? **MARKED**　○ No　○ Yes *(If Yes, check applicable items i - iv)*
　i. Temporary markings:　○ Flags　○ Stakes　○ Paint **TEMP_MARK_TEXT**
　ii. Permanent markings: **PERM_MARK**　○
　iii. Marks were (check one) :　○ Accurate　○ Not Accurate **ACC_MARK_TEXT**
　iv. Were marks made within required time? **MKD_IN_TIME**　○ Yes　○ No

H4 – OTHER OUTSIDE FORCE DAMAGE

10. ☐ Fire/Explosion as primary cause of failure **FIRE_EXPLO_TEXT**　⇒ 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

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H5 – MATERIAL AND/OR WELD FAILURES

Material

14. ☐ Body of Pipe ⇒ **PIPE_BODY_TEXT**
   ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other **PIPE_BODYO**

15. ☐ Component ⇒ **COMPONENT_TEXT**
   ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other **COMPONENTO**

16. ☐ Joint ⇒ **JOINT_TEXT**
   ○ Gasket ○ O-Ring ○ Threads ○ Other **JOINTO**

Weld

17. ☐ Butt ⇒ **BUTT_TEXT**
   ○ Pipe ○ Fabrication ○ Other **BUTTO**

18. ☐ Fillet ⇒ **FILLET_TEXT**
   ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other **FILLETO**

19. ☐ Pipe Seam ⇒ ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
   PIPE_SEAM_TEXT ○ HF ERW ○ SAW ○ Spiral ○ Other **PIPE_SEAMO**
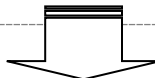
*Complete a-g if you indicate **any** cause in part H5.*

a. Type of failure: **FAIL_TYPE_TEXT**
   ○ Construction Defect ⇒ **CONS_DEF_TEXT** ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
   ○ Material Defect

b. **PIPE_DAMAGE** 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 **PRS_TEST**

d. Date of test: __/__/__/__/__/ **TEST_YR** yr. __/__/ **TEST_MO** mo. __/__/ **TEST_DAY** day

e. Test medium: **TEST_MED_TEXT** ○ Water ○ Inert Gas ○ Other **TEST_MEDO**

f. Time held at test pressure: __/__/ hr. **TEST_TP**

g. Estimated test pressure at point of accident: **TEST_PRS** *PSIG*

H6 – EQUIPMENT

20. ☐ Malfunction of Control/Relief Equipment ⇒ **MALFUNC_TEXT**
   ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
   ○ Block valve ○ Relief valve ○ Power failure ○ Other **MALFUNCO**

21. ☐ Threads Stripped, Broken Pipe Coupling ⇒ **THREADS_TEXT**
   ○ Nipples ○ Valve Threads ○ Dresser Couplings ○ Other **THREADSO**

22. ☐ Seal Failure **SEAL_TEXT** ⇒ ○ Gasket ○ O-Ring ○ Seal/Pump Packing ○ Other **SEALO**

H7 – INCORRECT OPERATION

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 who failed a post-accident test: drug test: __/__/__/ **IO_DRUG** alcohol test /__/__/__/ **IO_ALCO**

H8 – OTHER

24. ☐ Miscellaneous, *describe:* **MISC**

25. ☐ Unknown **UNKNOWN_TEXT**
   ○ 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)*

NARRATIVE

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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, non-HVL loss >= 50bbls, HVL loss >= 5bbls, then SIGNIFICANT='YES', else SIGNIFICANT='NO'.*
IYEAR	*Year accident occurred, derived from accident date*
PPPRPCURRENT	*Converted Property Damage to Current Year dollars*
EMRPRPCURRENT	*Converted Property Damage to Current Year dollars*
ENVPRPCURRENT	*Converted Property Damage to Current Year dollars*
OPCPRPCURRENT	*Converted Property Damage to Current Year dollars*
PRODPRPCURRENT	*Converted Property Damage to Current Year dollars*
OOPRPCURRENT	*Converted Property Damage to Current Year dollars*
OOPPRPCURRENT	*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*
SPILL_TYPE_CATEGORY	*Spill type category by PHMSA for accident trending; If there was fatality, injury, fire, explosion, water contamination, total property damage > $50K, or loss >= 5bbls, then SPILL_TYPE_CATEGORY='LARGE', else SPILL_TYPE_CATEGORY='SMALL'.*
SERIOUS	*Identify if record meets the SERIOUS criteria or not: If there was fatality or injury then SERIOUS = 'YES' else SERIOUS = 'NO'.*