| U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration | INCIDENT REPORT – GAS TRANSMISSION AND GATHERING SYSTEMS | Original Report Date: <u>06/02/2020</u> No. <u>20200057 - 33836</u> (DOT Use Only) |
|---|---|---|
| A federal agency may not conduct or sponsor, i to comply with a collection of information subj displays a current valid OMB Control Number. collection of information is estimated to be app data needed, and completing and reviewing the comments regarding this burden estimate or any Information Collection Clearance Officer, PHMS INSTRUCTIONS INSTRUCTIONS Information requested and provide specific | and a person is not required to respond to, nor shall a per ect to the requirements of the Paperwork Reduction Act The OMB Control Number for this information collection i proximately 12 hours per response, including the time for e collection of information. All responses to this collectior v other aspect of this collection of information, including su A, Office of Pipeline Safety (PHP-30) 1200 New Jersey Av the instructions for completing this form before you b examples. If you do not have a copy of the instruction | son be subject to a penalty for failure unless that collection of information s 2137-0635. Public reporting for this reviewing instructions, gathering the of information are mandatory. Send ggestions for reducing this burden to: renue, SE, Washington, D.C. 20590. egin. They clarify the ons, you can obtain one from the |
| PHMSA Pipeline Safety Community Web I | Page at http://www.phmsa.dot.gov/pipeline/library/forms | <u>.</u> |
| PART A – KEY REPORT INFORMATION | Report Type: <i>(select all that apply)</i> | Supplemental Final |
| Last Revision Date: | | |
| A1. Operator's OPS-issued Operator Identificat | ion Number (OPID): <u>19235</u> | |
| A2. Name of Operator: TEXAS EASTERN TRA | <u>NSMISSION, LP (SPECTRA ENERGY PARTNERS, LP)</u> | |
| A3. Address of Operator: | | |
| A3a. Street Address: <u>5400 WESTHEIMER</u> | COURT | |
| ASD. City. HOUSTON | | |
| | | |
| A3d. Zip Code: <u>77056</u> | | |
| A4. Earliest local time (24-hr clock) and date an | incident reporting criteria was met: 05/04/2020 16:36 | |
| A4a. Time Zone for local time (select only one) | 🗆 Alaska 🛛 Eastern 🗆 Central 🗆 Hawaii-Aleutian 🗆 M | lountain 🗆 Pacific. |
| A4b. Daylight Saving in effect? ⊠ Yes □ No | | |
| A5. Location of Incident: | | |
| Latitude: | | |
| Longitude: | | |
| | | |
| A6. Gas released: (select only one, based on pr | edominant volume released) | |
| ☑ Natural Gas □ Propane Gas □ Synthetic Gas □ Hydrogen Gas □ Landfill Gas □ Other Gas | | |
| A7. Estimated volume of gas released unintenti | onally: 51,684.00 thousand standard cubic feet (mcf) | |
| A8. Estimated volume of intentional and controll | ed release/blowdown: <u>96,400.00</u> thousand standard cu | ubic feet (mcf) |
| A9. Estimated volume of accompanying liquid r | eleased: Barrels | |

| A10 Were there fatalities? \Box Yes \boxtimes No | A11. Were there injuries requiring inpatient hospitalization? □ Yes ⊠ No |
|--|---|
| A12. What was the Operator's initial indication of the Failure? (sel | ect only one) |
| SCADA-based information (such as alarm(s), alert(s), evolution Static Shut-in Test or Other Pressure or Leak Test | ent(s), and/or volume or pack calculations) |
| | Local Operating Personnel, including contractors |
| Air Patrol Notification from Public | Ground Patrol by Operator or its contractor Notification from Emergency Responder |
| □ Notification from Third Party that caused the Incident □ | Other |
| A13. Local time Operator identified failure 05/0 Month | 4/2020 16:36 n Day Year Hour |
| A14. Part of system involved in Incident: (select only one) | |
| Belowground Storage, Including Associated Equipment a Aboveground Storage, Including Associated Equipment a | nd Piping and Piping |
| Onshore Compressor Station Equipment and Piping | |
| Onshore Regulator/Metering Station Equipment and Pipil | ng |
| ☑ Onshore Pipeline, Including Valve Sites ☐ Offebore Platform, Including Platform-mounted Equipment | at and Pining |
| Offshore Pipeline, Including Riser and Riser Bend | it and Fiping |
| A15. Operational Status at time Operator identified failure (select) | only one) |
| □ Post-Construction Commissioning | |
| Post-Maintenance/Repair Deuting Start Lie | |
| □ Routine Start-up □ Routine Shutdown | |
| Normal Operation, includes pauses during maintenance | |
| □ Idle | |
| A16. If A15 = Routine Start-Up or Normal Operation, was the pipe | line/facility shut down due to the incident |
| Yes □ No If Yes complete Questions A46 a and A46 by (use lease) time | 2. 24 hy clock) |
| A16a Local time and date of chutdown | e, 24-11/ CIOCK) 020 17-22 |
| Month D | ay Year Hour |
| A16b. Local time pipeline/facility restarted | ⊠ Still shut down* |
| Month D | ay Year Hour *Supplemental Report required |
| If A12. = Notification from Emergency Responder, skip A17. | |
| A17a. Did the operator communicate with Local, State, or Federal | Emergency Responders about the incident? \boxtimes Yes \Box No |
| If No, skip A17b and c. | |
| A17b. Which party initiated communication about the incident? | Operator Decal/State/Federal Emergency Responder |
| A17c. Local time of initial Operator and Local/State/Federal Emerg | ency Responder communication <u>05/04/2020 16:45</u> Month Day Year Hour |
| A ro. Local time operator resources arrived on site 05/04 Month | Day Year Hour |
| A19. Reserved | |
| A20a. Local time (24-hr clock) and date of initial operator report to | the National Response Center : <u>05/04/2020 17:40</u> Month Day Year Hour |
| A20b. Initial Operator National Response Center Report Number | <u>1276640</u> |
| A20c. Additional NRC Report numbers submitted by the operator: | <u>1276770</u> |
| A21. Did the gas ignite? $igtimes$ Yes $igcap$ No | |
| If A21 = Yes, then answer A21a through d: | |
| A21a. Local time of ignition: <u>05/04/2020 16:36</u> Month Day Year Hour | |
| A21b. How was the fire extinguished? Operator/Contractor Local/State/Federal Emergency Other, specify: | Responder 🛛 Allowed to burn out |
| A21c. Estimated volume of gas consumed by fire (mcf): _51,684 | (must be less than or equal to A7.) |

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 PLD20LR001 – Fleming County – NTSB001299

NOTICE: This report is required by 49 CFR Parts 191 and 195. Failure to report may result in a civil penalty as provided in 49 USC 60122.

| A21d. Did the gas explode? 🛛 Yes 🔹 🗍 No |
|---|
| If A14. is "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend", answer A22a through f |
| A22a. Initial action taken to control flow upstream of failure location $igtiangle$ Valve Closure $igsiangle$ Operational Control - |
| If Valve Closure, answer A22.b and c: |
| A22b. Local time of final upstream valve closure 05/04/2020 17:23 Month Day Year Hour |
| A22c. Type of upstream valve used to complete upstream isolation of release source: |
| A22d. Initial action taken to control flow downstream of failure location $oxtimes$ Valve Closure $oxtimes$ Operational Control - |
| If Valve Closure, answer A22e and f.: |
| A22e. Local time of final downstream valve closure 05/04/2020 17:05 Month Day Year Hour A22f. Type of downstream valve used to complete downstream isolation of release source: ⊠ Manual □ Automatic □ Remotely Controlled □ Check Valve |
| A23. Number of general public evacuated:2 |

| PART B – ADDITIONAL LOCATION INFORMATION | |
|---|---|
| B1. Was the origin of the Incident onshore? ⊠ Yes <i>(Complete Questions B2-B11)</i> | □ No (Complete Questions B12-B14) |
| B1a. Pipeline/Facility name: Line 10 | |
| B1b. Segment name/ID: OWSV-WHEE | |
| If Onshore: | |
| B2. State: Kentucky | |
| B3. Zip Code: <u>41049</u> | |
| B4. City: <u>Hillsboro</u> D Not within a Municipality | |
| B5. County or Parish: Fleming ON Not within a Country of Parish: | unty or Parish |
| B6. Operator designated location: (select only one) | ⊠ Milepost (specify below) |
| | □ Survey Station No. (specify below) |
| | □ Not Applicable (B7 will not accept data) |
| B7. Describe: 509.898 | |
| B8. Was Incident on Federal land, other than the Outer | Continental Shelf (OCS)? Yes No |
| B9. Location of Incident: (select only one) $\hfill \Box$ | Operator-controlled property 🛛 Pipeline right-of-way |
| B10. Area of Incident (as found): (select only one) | |
| Belowground storage or aboveground storage | e vessel, including attached appurtenances |
| ☑ Underground | |
| Specify: Inder soil Inder a building Exposed due to loss of cover | □ Under pavement □ Exposed due to excavation □ In underground enclosed space (e.g., vault) □ Other |
| B10a. Depth-of-Cover (in): 54 | |
| B10b. Were other underground facilities | found within 12 inches of the failure location? $\ \square$ Yes $\ \boxtimes$ No |
| | |
| □ Transition Area | |
| B11. Did Incident occur in a crossing? Yes | No |

| PART C – ADDITIONAL FACILITY INFORMATION |
|---|
| C1. Is the pipeline or facility: |
| ⊠ Interstate |
| C2 Material involved in Incident: (select only one) |
| ⊠ Carbon Steel |
| |
| ☐ Material other than Carbon Steel or Plastic |
| C3. Item involved in Incident: (select only one) |
| ⊠ Pipe |
| Specify: 🛛 Pipe Body 🗆 Pipe Seam 🛛 - |
| C3a. Nominal Pipe Size: <u>30</u> |
| If Pipe Body: Was this a Puddle/Spot Weld? Yes No |
| If C2. is Carbon Steel |
| C30. Wall thickness (in): <u>0.375</u> |
| C3c. SMYS (Specified Minimum Yield Strength) of pipe (psi): <u>52,000</u> |
| C3d. Pipe specification: API-5LX OR Unknown |
| C3e. Pipe Seam |
| Specify: Longitudinal ERW - High Frequency Single SAW Fiash Weided SAW |
| □ Longitudinal ERW – Unknown Frequency |
| □ Spiral Welded □ Lap Welded □ Seamless □ Other |
| C3f. Pipe manufacturer: National Tube Works OR Unknown |
| C3g. Pipeline coating type at point of Incident |
| Specify: 🗆 Epoxy 🗵 Coal Tar 🗀 Asphalt 👘 Polyolefin |
| Extruded Polyethylene Cold Applied Tape Paint |
| C2h Conting field applied? |
| |
| □ Weld/Fusion, including heat-affected zone |
| □ Valve, excluding Regulator/Control Valves |
| Compressor, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing. |
| Deter, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing. |
| Scraper/Pig Trap, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing. Oderization System including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing. |
| □ Filter/Strainer/Separator , including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing. |
| Dehydrator/Drier/Treater/Scrubber, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines |
| and tubing. |
| Regulator/control valve, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing. Pulsation Bottle or Drip/Drip Collection Device |
| Cooler or Heater, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing. |
| □ Repair Sleeve or Clamp |
| □ Hot Tap Equipment |
| In Finding (stopple, thread-o-ring, weid-o-let, etc.) Flange Assembly, including Gaskets |
| ESD System, including auxiliary piping, connections, valves, and equipment, but excluding product drain lines and tubing. |
| □ Drain Lines |
| □ Tubing, including Fittings |
| Instrumentation, including Frogrammable Logic Controllers and Controls Underground Gas Storage or Cavern |
| □ Other |
| C4. Year item involved in Incident was installed: <u>1952</u> OR □ Unknown C5. Year item involved in Incident was manufactured: OR ⊠ Unknown |
| C6. Type of release involved: (select only one) |
| Mechanical Puncture |
| |
| ⊠ Rupture |
| |

NOTICE: This report is required by 49 CFR Parts 191 and 195. Failure to report may result in a civil penalty as provided in 49 USC 60122.

Select Orientation: □ Circumferential □ Longitudinal ⊠ Other <u>The incident is under NTSB Investigation</u> Approx. size: <u>80</u> in. (widest opening) by <u>48</u> in. (length circumferentially or axially)
□ Other NOTICE: This report is required by 49 CFR Parts 191 and 195. Failure to report may result in a civil penalty as provided in 49 USC 60122.

| PART D – ADDITIONAL CONSEQUENCE INFORMATION |
|---|
| D1. Class Location of Incident: <i>(select only one)</i> ⊠ Class 1 Location □ Class 2 Location □ Class 3 Location □ Class 4 Location |
| D2. Did this Incident occur in a High Consequence Area (HCA)? □ Yes ⊠ No |
| D3. What is the PIR (Potential Impact Radius) for the location of this Incident?633 feet or 🗆 Not Flammable |
| D4. Were any structures outside the PIR impacted or otherwise damaged by heat/fire resulting from the Incident? 🗆 Yes 🛛 No |
| D5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident? 🗌 Yes 🛛 No |
| D6. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? |
| D7. Estimated Property Damage: D7a. Estimated cost of public and non-Operator private property damage \$ |
| Injured Persons not included in A11 The number of persons injured, admitted to a hospital, and remaining in the hospital for at least one overnight are reported in A11. If a person is included in A11, do not include them in D8. |
| D8. Estimated number of persons with injuries requiring treatment in a medical facility but not requiring overnight in-patient hospitalization: 1 <i>If a person is included in D8, do not include them in D9.</i> |
| D9. Estimated number of persons with injuries requiring treatment by EMTs at the site of incident:0 |
| Buildings Affected |
| D10. Number of residential buildings affected (evacuated or required repair or gas service interrupted): 0 |
| D11. Number of business buildings affected (evacuated or required repair or gas service interrupted): 0 |
| D12. Wildlife impact: ⊠ Yes □ No 12a. If Yes, specify all that apply: □ Fish/aquatic □ Birds ⊠ Terrestrial |

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| PART E – ADDITIONAL OPERATING INFORMATION |
|--|
| E1. Estimated pressure at the point and time of the Incident (psig): <u>858.00</u> |
| E1a. Estimated gas flow in pipe segment at the point and time of the incident (MSCF/D):00 |
| E2. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig) : 936.00 |
| E2a. MAOP established by 49 CFR section: |
| ⊠ 192.619 (a)(1) □ 192. 619 (a)(2) □ 192. 619 (a)(3) □ 192.619 (a)(4) □ 192. 619 (c) □ 192.619 (d) |
| □ O ther Specify Other : E2b. Date MAOP established: <u>10/07/2014</u> Month Day Year |
| E2c. Was the MAOP in E2a and b established in conjunction with a reversal of flow direction? \boxtimes Yes \Box No \Box Bi-Directional |
| E3. Describe the pressure on the system or facility relating to the Incident: (select only one) |
| E4. 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 ? Yes (Complete E4.a and E4.b below) No |
| E5. Was the gas at the point of failure required to be odorized in accordance with §192.625? \Box Yes \Box No |
| If A14 is "Onshore Pipeline, Including Valve Sites" or "Offshore Pipeline, Including Riser and Riser Bend", complete E6 through E8 |
| E6. Length of segment between upstream and downstream shut-off valves closest to failure location (ft):77,669 |
| E7. Is the pipeline configured to accommodate internal inspection tools? |
| \boxtimes Yes \square No -Which physical features limit tool accommodation? |
| E8. For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run? ⊠ No □ Yes -Which operational factors complicate execution? |
| E9. Function of pipeline system: (select only one) |
| ☑ Transmission System □ Trype A Gathering □ Transmission in Storage Field □ Offshore Gathering |
| E10. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Incident? |
| E10.a Was it operating at the time of the Incident? \square Yes \square No |
| E10.b Was it fully functional at the time of the Incident? \boxtimes Yes \Box No |
| E10.c Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume or pack calculations) assist with the initial indication of the Incident? |
| E10.d Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmed discovery of the Incident? 🛛 🛛 No |
| E11. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contr buting factor to the Incident? (select only one) |
| 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 parator 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): Yes, specify investigation result(s): |
| |

_

| PART F – DRUG & ALCOHOL TESTING INFORMATION | |
|--|--|
| F1. As a result of this Incident, were any Operator employees tested u Drug & Alcohol Testing regulations? | under the post-accident drug and alcohol testing requirements of DOT's |
| ⊠ Yes □ No | |
| F1a. Specify how many were tested: <u>5</u> F1b. Specify how many failed: <u>0</u> F2. As a result of this Incident, were any Operator contractor employe of DOT's Drug & Alcohol Testing regulations? | es tested under the post-accident drug and alcohol testing requirements |
| 🖾 Yes 🗆 No | |
| F2a. Specify how many were tested: <u>1</u> F2b. Specify how many failed: <u>0</u> | |
| | |
| PART G – APPARENT 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. Enter secondary, contributing, or root causes of the Incident in Part K – Contributing Factors. |
| □ G1 – Corrosion Failure | |
| □ G2 - Natural Force Damage | |
| | |

- G3 Excavation Damage
- □ G4 Other Outside Force Damage
- □ G5 Material Failure of Pipe or Weld
- G6 Equipment Failure
- □ G7 Incorrect Operation
- \boxtimes G8 Other Incident Cause

8 - Other Incident Cause

| ☐ Miscellaneous | 1. Describe: |
|-----------------|---|
| ⊠ Unknown | Specify: □ Investigation complete, cause of Incident unknown Mandatory comment field: ☑ Still under investigation, cause of Incident to be determined* (*Supplemental Report required) |

PART H – NARRATIVE DESCRIPTION OF THE INCIDENT (Attach additional sheets as necessary)

At approximately 4:36 PM EDT on May 4, 2020, TETLP's 30-inch diameter Line 10 transporting natural gas from Wheelersburg Compressor Station to Owingsville Compressor Station in Kentucky failed at M. P. **MEDT**. The failure resulted in an explosion and fire. TETLP received a call attendant alarm at 4:39 PM EDT from the Owingsville Compressor Station. During the ensuing minutes, TETLP began receiving reports from the public of a fire north of the Owingsville Compressor Station. TETLP personnel were immediately dispatched to close mainline block valve, MLV 10-367 at MP and MLV 10-351 at the Owingsville Compressor Station, thus isolating the failed segment at 5:23 EDT. TETLP initiated the notification to the NRC at 5:23 PM EDT after receiving confirmed discovery of the pipeline failure and gathering the initial information to make the NRC notification with the call terminating at 5:40 PM EDT. Note that the NRC records the time the call was terminated on the NRC report and not the time of the call was initiated.

The apparent cause of the incident is under investigation by the NTSB. The incident cause is being reported as Other Incident Cause until the NTSB releases information about the incident cause. The Apparent Cause will be updated when it becomes available from the NTSB. Part J will be supplemented as well along with cause.

Note that E.1.a Estimated gas flow in pipe segment at the point and time of the incident (MSCF/D): is was approximately 1,433,000 Dth/d rate through the Owingsville compressor station which includes both Lines 10 and 25. Line 15, which shares the right of way with Lines 10 and 25 was isolated at the time of the incident.

| PART I – PREPARER AND AUTHORIZED PERSON | | |
|---|--|--|
| Preparer's Name (type or print): | Preparer's Telephone Number: | |
| Preparer's Title (type or print): | Preparer's Facsimile Number: | |
| Preparer's E-mail Address: | | |
| Email Address | | |
| Local Contact Name: | | |
| optional Local Contact Phone: optional: | | |
| Authorized Signer Name: | | |
| Authorized Signer Telephone Number: | | |
| Authorized Signer E-mail Address: | | |
| Authorized Signer Title: | | |
| Authorized Date: 06/02/2020 | | |
| | | |
| PART J – INTEGRITY INSPECTIONS | | |
| Complete the following if the "Item Involved in Accident" (from PAR Corrosion (any subCause in Part G1); or | 「C, Question 3) is Pipe or Weld and the "Cause" (from Part G) is: | |
| Previous Damage due to Excavation Activity (subCause in Part G | 3); or | |
| Previous Mechanical Damage NOT Related to Excavation (subCa | use in Part G4); or | |
| Material Failure of Pipe or Weld (any subCause in Part G5) | | |
| J1. Have internal inspection tools collected data at the point of the Incide | nt? 🗌 Yes 🗌 No | |
| Answer J1b only when the cause is: | | |
| Previous Damage due to Excavation Activity (subCause in Part | G3); or | |
| Previous Mechanical Damage NOT Related to Excavation (sub | Cause in Part G4) | |
| J1b. Do you have reason to believe that the internal inspection was | completed BEFORE the damage was sustained? | |
| Yes No | | |
| J2. Has one or more hydrotest or other pressure test been conducted (initial post construction pressure test is NOT reported here) | since original construction at the point of the Incident? | |
| | | |
| | | |
| J3. Has Direct Assessment been conducted on the pipeline segment? | | |
| \Box Yes, and an investigative dig was conducted at the point | t of the Accident | |
| \Box Yes, but the point of the Accident was not identified as a | dig site | |
| No | | |
| J4. Has one or more non-destructive examination been conducted price | or to the Incident at the point of the Incident since January 1, 2002? | |
| | | |
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🗌 Yes 🗌 No

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| PART K – NARRATIVE DESCRIPTION OF THE INCIDENT | (Attach additional sheets as necessary) |
|--|---|
| The Apparent Cause of the accident is contained in Part G. Do r were identified, select all that apply below and explain each in th | not report the Apparent Cause again in this Part K. If Contr buting Factors ne Narrative: |
| External Corrosion | Pipe/Weld Failure |
| External Corrosion, Galvanic | □ Design-related |
| External Corrosion, Atmospheric | □ Construction-related |
| External Corrosion, Stray Current Induced | □ Installation-related |
| External Corrosion, Microbiologically Induced | □ Fabrication-related |
| External Corrosion, Selective Seam | Original Manufacturing-related |
| Internal Corrosion | Environmental Cracking-related, Stress Corrosion Cracking |
| | Environmental Cracking-related, Sulfide Stress Cracking |
| | Environmental Cracking-related, Hydrogen Stress Cracking |
| | Environmental Cracking-related. Hard Spot |
| | |
| □ Earth Movement, NOT due to Heavy Rains/Floods | Molfunction of Control/Poliof Equipment |
| □ Heavy Rains/Floods | |
| □ Lightning | |
| □ Temperature | |
| ☐ High Winds | |
| □ Tree/Vegetation Root | Defective or Loose Tubing or Fitting |
| Excavation Damage | Failure of Equipment Body (except Compressor), Vessel Plate, or other Material |
| Excavation Damage by Operator (First Party) | Incorrect Operation |
| Excavation Damage by Operator's Contractor (Second Par | ty) Damage by Operator or Operator's Contractor NOT |
| Excavation Damage by Third Party | Excavation and NOT Vehicle/Equipment Damage |
| Previous Damage due to Excavation Activity | □ Valve Left or Placed in Wrong Position, but NOT |
| Other Outside Force | Resulting in Overpressure |
| Nearby Industrial, Man-made, or Other Fire/Explosion | Pipeline or Equipment Over =pressured |
| Damage by Car, Truck, or Other Motorized | Equipment Not Installed Properly |
| Vehicle/Equipment NOT Engaged in Excavation | Wrong Equipment Specified or Installed |
| Damage by Boats, Barges, Drilling Rigs, or Other Adrift Maritime Equipment | Inadequate Procedure |
| Reutine or Normal Fiching or Other Maritime Activity | No procedure established |
| NOT Engaged in Excavation | □ Failure to follow procedures |
| Electrical Arcing from Other Equipment or Facility | |
| Previous Mechanical Damage NOT Related to Excavation | |
| □ Intentional Damage | |
| □ Other underground facilities buried within 12 inches of the failure location | |

| NOTICE: This report is required by 49 CFR Parts 191 and 195. Failure to report may result in a civil per USC 60122. | | penalty as provided in 49 | | Form Approved: 4/30/2019 OMB No. 2137-0635 Expiration Date:5/31/2024 | |
|--|--|--|---|---|--|
| N | Original Repo | ort Date: | 06/02 | /2020 | |
| U.S. Department of Transportation | No. | | 2020005 | 7 - 36037 | |
| Pipeline and Hazardous Materials Safety Administration | | | (DOT U | se Only) | |
| INCIDENT REPORT - GAS TRANSI GATHERING SYSTEM | NISSION AND S |) | | | |
| A federal agency may not conduct or sponsor, and a person is not required to respond comply with a collection of information subject to the requirements of the Paperwork Re current valid OMB Control Number. The OMB Control Number for this information colle information is estimated to be approximately 12 hours per response, including the time completing and reviewing the collection of information. All responses to this collection of this burden estimate or any other aspect of this collection of information, including sugg Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue | to, nor shall a per eduction Act unles ction is 2137-0635 for reviewing instr if information are jestions for reduci ue, SE, Washingto | son be sub s that colle 5. Public re ructions, ga mandatory. ng this bur on, D.C. 20 | ject to a penalty ction of informa porting for this of athering the data . Send comment den to: Informati 590 | for failure to tion displays a collection of needed, and is regarding ion Collection | |
| INSTRUCTIONS | | | | | |
| Important: Please read the separate instructions for completing this form before you begin. They you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Co. <u>gov/pipeline/library/forms</u> . | clarify the informatio mmunity Web Page | n requested at <u>http://www</u> | and provide speci <u>v.phmsa.dot.</u> | fic examples. If | |
| PART A - KEY REPORT INFORMATION | | | | | |
| Report Type: (select all that apply) | Original: | Supp | lemental: Yes | Final: | |
| Last Revision Date: | 11/23/2021 | | 100 | | |
| A1. Operator's OPS-issued Operator Identification Number (OPID): | 19235 | | | | |
| A2. Name of Operator | TEXAS EASTERN TRANSMISSION, LP (SPECTR ENERGY PARTNERS, LP) | | SPECTRA | | |
| A3. Address of Operator: | | | • | | |
| A3a. Street Address | 5400 WESTHE | | JRT | | |
| A3b. City | HOUSTON | | | | |
| A3C. State | | | | | |
| A30. ZIP Code. | 05/04/2020 16:36 | | | | |
| A4a. Time Zone for local time (select only one) | Eastern | | | | |
| A4b. Daylight Saving in effect? | Yes | | | | |
| A5. Location of Incident: | - | | | | |
| Latitude / Longitude | | | | | |
| A6. Gas released: (select only one, based on predominant volume released) | Natural Gas | | | | |
| - Other Gas Released Name: | | | | | |
| A7. Estimated volume of commodity released unintentionally - thousand standard cubic feet (mcf) | 51,684.00 | | | | |
| A8. Estimated volume of intentional and controlled release/blowdown - thousand standard cubic feet (mcf)) | 96,400.00 | | | | |
| A9. Estimated volume of accompanying liquid release (Barrels): | | | | | |
| A10. Were there fatalities? | No | | | | |
| - If Yes, specify the number in each category: | | | | | |
| A10a. Operator employees | | | | | |
| A10b. Contractor employees working for the Operator | | | | | |
| A10d. Workers working on the right-of-way, but NOT associated with | | | | | |
| this Operator | | | | | |
| A10e. General public | | | | | |
| A10f. Total fatalities (sum of above) | | | | | |
| A11. Were there injuries requiring inpatient hospitalization? | No | | | | |
| If Yes, specify the number in each category: | | | | | |
| A11a. Operator employees | | | | | |
| A11b. Contractor employees working for the Operator | | | | | |
| A11c. Non-Operator emergency responders | | | | | |
| this Operator | <u> </u> | | | | |
| A11e. General public | | | | | |
| 111. I otal Injuries (sum of above) | + | | | | |
| (select only one) | Notification Fro | m Public | | | |
| Other - Describe | | | | | |

| A12a. If "Controller", "Local Operating Personnel, including contractors", "Air Patrol" or "Ground Patrol by Operator or its contractor" is selected in | |
|--|---|
| Question 12, specify the following: (select only one) | |
| A13. Local time Operator identified failure | 05/04/2020 16:36 |
| A14. Part of system involved in Incident: (select only one) | Onshore Pipeline, Including Valve Sites |
| A15. Operational Status at time Operator identified failure (select only one) | Normal Operation, includes pauses during maintenance |
| A16. If A15 = Routine Start-Up or Normal Operation, was the pipeline/facility shut down due to the incident? | Yes |
| - If No, Explain: | |
| - If Yes, complete Questions 16a and 16b: (use local time, 24-hr clock) | |
| A16a. Local time and date of shutdown | 05/04/2020 17:23 |
| A16b. Local time pipeline/facility restarted | |
| - Still shut down? ("Supplemental Report Required) | Yes |
| If A12. = Notification from Emergency Responder, skip A17. | |
| Emergency Responders about the incident? | Yes |
| If No, skip A17b and c. | |
| A17b. Which party initiated communication about the incident? | Operator |
| Responder communication | 05/04/2020 16:45 |
| A18. Local time operator resources arrived on site | 05/04/2020 17:01 |
| A19. Reserved | |
| A20a. Local time (24-hr clock) and date of initial operator report to the | 05/04/2020 17:40 |
| A20h Initial Operator National Response Center Report Number | 1276640 |
| NRC Notification Required But Not Made | |
| A20c. Additional NRC Report numbers submitted by the operator | 1276770 |
| A21. Did the gas ignite? | Yes |
| A21 = Yes, then answer A21a through d: | |
| A21a. Local time of ignition: | 05/04/2020 16:36 |
| A21b. How was the fire extinguished? | Allowed to burn out |
| Specify: | |
| A21c. Estimated volume of gas consumed by fire (mcf): (must be loss than or equal to A_{7}) | 51,684.00 |
| A21d Did the gas explode? | Vac |
| If A14, is "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline. | |
| Including Riser and Riser Bend", answer A22a through f | |
| A22a. Initial action taken to control flow upstream of failure location | Valve Closure |
| If Valve Closure, answer A22.b and c: | |
| A22b. Local time of final upstream valve closure | 05/04/2020 17:23 |
| A22c. Type of upstream valve used to complete upstream isolation of release | Manual |
| A22d. Initial action taken to control flow downstream of failure location | Valve Closure |
| | |
| If Valve Closure, answer A22e and f.: | |
| A226. Local time of final downstream valve used to complete downstream isolation of | 05/04/2020 17:05 |
| release source | Manual |
| A23. Number of general public evacuated: | 2 |
| PART B - ADDITIONAL LOCATION INFORMATION | |
| B1. Was the origin of the Incident onshore? Auto-populated based on A14 | Yes |
| Yes (Complete Questions B2-B11) | |
| No (Complete Questions B12-B14) | |
| B1a. Pipeline/Facility name: | |
| B1D. Segment name/ID: | OWSV-WHEE |
| R2 State: | Kentucky |
| B3. Zip Code: | 41049 |
| B4. City | Hillsboro |
| <i>,</i> | |
| B5. County or Parish | Fleming |

| DZ Deservite | 500.000 |
|---|-----------------------|
| B7. Describe: | 509.898 |
| B8. Was Incident on Federal land, other than the Outer Continental Shelf (OCS)? | No |
| B9 Location of Incident | Pipeline Right-of-way |
| Die Leonard of Insident (colorit only one) | |
| B10. Area of Incident: (Select only one) | Underground |
| Specify: | Under soil |
| Other – Describe: | |
| | E4 |
| B10a. Depth-of-Cover (in): | 54 |
| B10b Were other underground facilities found within 12 inches of the | |
| failure location? | No |
| B11 Did Incident occur in a crossing? | Ne |
| bit. Did incident occur in a clossing: | |
| - II Tes, specify type below. | |
| - If Bridge crossing – | |
| Cased/ Uncased: | |
| | |
| - Il Railload clossing – | |
| Cased | |
| Uncased | |
| Borod/drillod | |
| Bored/dilled | |
| - If Road crossing – | |
| Cased | |
| | |
| | |
| Bored/drilled | |
| - If Water crossing – | |
| Cased/Lincased | |
| | |
| Name of body of water (If commonly known): | |
| Approx. water depth (ft) at the point of the Incident: | |
| Select: | |
| le this water creasing 100 feet or more in length from high water mark to high | |
| is this water crossing 100 feet or more in length from high water mark to high | |
| water mark? | |
| If Offshore: | |
| B12 Approx water depth (ft) at the point of the Incident: | |
| D12. Applot. which do in (if) at the point of the meddent. | |
| B13. Origin of incident: | |
| - If "In State waters": | |
| - State: | |
| - 4100 | |
| | |
| - Block/Tract #: | |
| - Nearest County/Parish: | |
| - If "On the Outer Continental Shelf (OCS)" | |
| | |
| | |
| - Area: | |
| - Block/Tract #: | |
| B14 Area of Incident | |
| | |
| PART C - ADDITIONAL FACILITY INFORMATION | |
| | |
| C1. Is the pipeline or facility: - Interstate - Intrastate | Interstate |
| C2 Material involved in Incident: (select only one) | Carbon Steel |
| 62. Matchai Mored In medera. (Select only one) | Carbon Otech |
| It Material other than Carbon Steel or Plastic – Specify: | |
| C3. Item involved in Incident: | Pipe |
| - If Pine - Specify: | Pine Body |
| | |
| C3a. Nominal Pipe Size: | 30 |
| If Pipe Body: Was this a Puddle/Spot Weld? | No |
| If C2 is Carbon Steel | |
| C2h Wall thickness (in): | 0.375 |
| C3b. Wall thickness (in): | 0.375 |
| C3c. SMYS (Specified Minimum Yield Strength) of pipe (psi): | 52,000 |
| C3d. Pipe specification: | API-5LX |
| Linknown | |
| | DOWN |
| C3e. Pipe Seam – Specify: | DSAW |
| - If Other, Describe: | |
| C3f Pipe manufacturer: | National Tube Works |
| | |
| Unknown | <u> </u> |
| C3g. Pipeline coating type at point of Incident – Specify: | Coal Tar |
| If Other Departies | |
| - II Other, Describe. | |
| C3h. Coating field applied? | Unknown |
| If C2. is Plastic | |
| C3i, Specify type: | |
| If Other Describe | |
| - II Other, Describe | |
| C3LSpecity Standard Dimension Ratio (SDR): | 1 |

| wall thickness | |
|--|--|
| | |
| C3k If Polyethylene (PF) is selected as the type of plastic in C3i specify PF | |
| Pine Material Designation Code (i.e., 2406, 3408, etc.) | |
| | |
| Childown | |
| - If Weld/Eusion including heat-affected zone - Specify: | |
| If Pipe Cirth Wold is selected, complete items C2 a through h above | |
| If Fipe Giffit Weld is selected, complete items C3.a through it above | |
| Are any of the C3D through it values different on either side of the girth | |
| | |
| If Yes, enter the different value(s) below: | |
| C3I. Wall thickness (in): | |
| C3m. SMYS (Specified Minimum Yield Strength) of pipe (psi): | |
| C3n. Pipe specification | |
| Unknown | |
| C3o. Pipe Seam | |
| Describe: | |
| C3p. Pipe manufacturer | |
| Unknown | |
| C3g. Pipeline coating type at point of Accident | |
| Describe: | |
| C3r. Coating field applied? | |
| If Plastic Pipe Fusion is selected, complete items C3 a and c3 i through k above | |
| - If Valve, excluding Regulator/Control Valves - Specify: | |
| | |
| - It Mainline – Specity: | |
| - If Other, Describe: | |
| C3s. Mainline valve manufacturer: | |
| Unknown | |
| C3t. Tubing material (select only one): | |
| C3u. Type of tubing (select only one): | |
| - If Other, Describe: | |
| C4. Year item involved in Incident was installed: | 1952 |
| Unknown | |
| C5 Year item involved in Incident was manufactured: | |
| | |
| Unknown | Yes |
| Unknown | Yes Runture |
| C6. Type of release involved (select only one): | Yes Rupture |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: | Yes Rupture |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by | Yes Rupture |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) | Yes Rupture |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: | Yes Rupture |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: | Yes Rupture |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: | Yes Rupture Other |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: | Yes Rupture Other The incident is under NTSB Investigation |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Des | Yes Rupture Other The incident is under NTSB Investigation |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - Unknown - If Other – Describe: - If O | Yes Rupture Other The incident is under NTSB Investigation 80 48 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): | Yes Rupture Other The incident is under NTSB Investigation 80 48 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: | Yes Rupture Other The incident is under NTSB Investigation 80 48 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION | Yes Rupture Other The incident is under NTSB Investigation 80 48 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Other – Describe: | Yes Rupture Other The incident is under NTSB Investigation 80 48 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to | Yes Rupture Other Other The incident is under NTSB Investigation 80 48 Class 1 Location No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged NOT by | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident? | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any of the fatalities or injuries (A11 only) reported for persons located | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident? D6. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident? D6. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? If Yes. Describe the cause of the fatalities or injuries | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident? D6. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? If Yes, Describe the cause of the fatalities or injuries D7. Estimated Property Damage : | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? If Yes, Describe the cause of the fatalities or injuries D7a. Estimated cost of unblic and non-Operator private preparty damage? | Yes Rupture Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No No |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? If Yes, Describe the cause of the fatalities or injuries D7. Estimated Property Damage : D7a. Estimated cost of public and non-Operator private property damage paid/site but the Operator and fating 6, 2044 Table/ | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No No No \$ 700,000 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? If Yes, Describe the cause of the fatalities or injuries D7. Estimated Cost of public and non-Operator private property damage paid/reimbursed by the Operator – effective 6-2011, "paid/reimbursed by the Operator – effective 6-2011, "paid/reimbursed by the Operator – effective 6-2011, "paid/reimbursed by the | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No No No No \$ 700,000 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: in. (axial) by in. (circumferential) - If Leak - Select Type: - If Other – Describe: - If Rupture - Select Orientation: - If Other – Describe: Approx. size: in. (widest opening): by in. (length circumferentially or axially): - If Other – Describe: PART D - ADDITIONAL CONSEQUENCE INFORMATION D1. Class Location of Incident: D2. Did this Incident occur in a High Consequence Area (HCA)? - If Yes: D2a. Specify the Method used to identify the HCA: D3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet: Not Flammable D4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident? D5. Were any of the fatalities or injuries (A11 only) reported for persons located outside the PIR? If Yes, Describe the cause of the fatalities or injuries D7. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator – effective 6-2011, "paid/reimbursed by the Operator" removed | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No No \$ 700,000 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No \$ 700,000 \$ 10,000,000 |
| Unknown C6. Type of release involved (select only one): - If Mechanical Puncture – Specify Approx. size: | Yes Rupture Other The incident is under NTSB Investigation 80 48 Class 1 Location No 633 No \$ 700,000 \$ 10,000,000 \$ 10,000,000 |

| Describe: | |
|--|--|
| D7e. Property damage subtotal (sum of above) | \$ 11,700,000 |
| Cost of Gas Released | |
| Cost of Gas in \$ per thousand standard cubic feet (mcf): | 1.9900 |
| D7f. Estimated cost of gas released unintentionally | \$ 102.851 |
| D7g. Estimated cost of gas released during intentional and | \$ 404,000 |
| controlled blowdown | \$ 191,836 |
| D7h. Total estimated cost of gas released (sum of 7.f & 7.g above) | \$ 294,687 |
| D7i. Estimated Total Cost (sum of D7e and D7h) | \$ 11,994,687 |
| Injured Persons not included in A11 The number of persons injured, admitted to a overnight are reported in A11. <i>If a person is included in A11, do not include them</i> | hospital, and remaining in the hospital for at least one <i>in D8.</i> |
| D8. Estimated number of persons with injuries requiring treatment in a medical facility but not requiring overnight in-patient boshifalization: | 0 |
| If a person is included in D8, do not include them in D9. | |
| D9. Estimated number of persons with injuries requiring treatment by EMTs at the | - |
| site of incident | 0 |
| Buildings Affected | |
| D10. Number of residential buildings affected (evacuated or required repair or gas service interrupted): | 0 |
| D11. Number of business buildings affected (evacuated or required repair or gas | 0 |
| D12 Wildlife impact | Yes |
| 12a. If Yes, specify all that apply: | |
| Fish/aquatic | |
| Birds | |
| Terrestrial | Yes |
| D13. If D2. Is No, answer D13a. | |
| 13a. Did this incident occur in a Moderate Consequence Area (MCA)? | |
| If D13a. is Yes, answer D13b | |
| 13b. Select each of the items below that were present within the potential impact circle: | |
| 5 or more buildings intended for human occupancy | |
| Paved surface for a designated interstate, freeway, expressway, or other principal 4-lane arterial roadway | |
| PART E - ADDITIONAL OPERATING INFORMATION | |
| E1. Estimated pressure at the point and time of the Incident (psig): | 674.00 |
| E1a. Estimated gas flow in pipe segment at the point and time of the incident (MSCF/D): | .00 |
| E2. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig): | 936.00 |
| E2a. MAOP established by 49 CFR section: | 192.619(a)(1) |
| - If Other, specify: | |
| E2b. Date MAOP established: | 10/07/2014 |
| E2c. Was the MAOP in E2a and b established in conjunction with a reversal of flow direction? | Yes |
| E3. Describe the pressure on the system or facility relating to the Incident: | Pressure did not exceed MAOP |
| E4. 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 2 | No |
| - If Yes - (Complete 4a and 4b below) | 1 |
| E4a. Did the pressure exceed this established pressure restriction? | |
| E4b. Was this pressure restriction mandated by PHMSA or the State? | |
| E5. Was the gas at the point of failure required to be odorized in accordance with §192.625? | No |
| If yes, Was the gas at the point of failure odorized in accordance with §192.625? | |
| It A14 is "Onshore Pipeline, Including Valve Sites" or "Offshore Pipeline, Including Ris | ser and Riser Bend", complete E6 through E8 |
| Eb. Length of segment between upstream and downstream shut-off valves closest to failure location (ft): | 77,669 |
| E7. Is the pipeline configured to accommodate internal inspection tools? | Yes |
| - If No, Which physical features limit tool accommodation? (select all that apply) | |
| Changes in line pipe diameter | |
| - Presence of unsuitable mainline valves Tight or mitored pipe hande | |
| - Tight of millered pipe bends | |
| etc.) | |

| Extra thick pipe wall (applicable only for magnetic flux leakage internal | |
|---|--|
| inspection tools) | |
| - Other | |
| - If Other, Describe: | |
| F8 For this pipeline, are there operational factors which significantly complicate the | |
| execution of an internal inspection tool run? | No |
| - If Ves. Which operational factors complicate execution? (select all that apply) | |
| - II Tes, which operational factors complicate execution: (Select all that apply) | |
| - Excessive debris of scale, wax, of other wail build-up | |
| - Low operating pressure(s) | |
| - Low flow or absence of flow | |
| - Incompatible commodity | |
| - Other | |
| - If Other, Describe: | |
| E9. Function of pipeline system: (select only one) | Transmission System |
| E10 Was a Supervisory Control and Data Acquisition (SCADA)-based system in | |
| place on the pipeline or facility involved in the Incident? | Yes |
| | |
| | |
| E10a. Was it operating at the time of the Incident? | Yes |
| E10b. Was it fully functional at the time of the Incident? | Yes |
| E10c. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or | Voc |
| volume or pack calculations) assist with the initial indication of the Incident? | 165 |
| E10d, Did SCADA-based information (such as alarm(s), alert(s), event(s), | |
| and/or volume calculations) assist with the confirmed discovery of the Incident? | Yes |
| | Yes, but the investigation of the control room and/or |
| E11. Was an investigation initiated into whether or not the controller(s) or control | controller actions has not yet been completed by the |
| room issues were the cause of or a contr buting factor to the Incident? | controller actions has not yet been completed by the |
| | operator (Supplemental Report Required) |
| - If 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) | |
| If Yes, Descr be 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 | |
| Investigation did NOT review work schedule rotations, continuous hours | |
| of sorvice (while working for the Operator) and other factors associated with | |
| for the working for the Operator) and other factors associated with | |
| laugue | |
| - Provide an explanation for why not: | |
| Investigation identified no control room issues | |
| Investigation identified no controller issues | |
| Investigation identified incorrect controller action or controller error | |
| Investigation identified that fatigue may have affected the controller(s) | |
| involved or impacted the involved controller(s) response | |
| - Investigation identified incorrect procedures | |
| Investigation identified incorrect control room equipment energies | |
| - investigation identified incorrect control toolin equipment operation | |
| Investigation identified maintenance activities that affected control room | |
| operations, procedures, and/or controller response | |
| Investigation identified areas other than those above – | |
| Describe: | |
| | |
| PART E - DRUG & ALCOHOL TESTING INFORMATION | |
| | |
| E1. As a result of this incident, were any Operator employees tested under the past | |
| F1. As a result of this incident, were any Operator employees tested under the post- | Var |
| accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing | res |
| regulations? | |
| - If Yes: | |
| F1a. How many were tested: | 5 |
| F1b. How many failed: | 0 |
| F2. 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 | Yes |
| Testing regulations? | |
| | l |
| | 4 |
| r∠a. How many were tested: | |
| F2b. How many failed: | 0 |
| | |
| PART G - APPARENT CAUSE | |
| | |
| Select only one box from PART G in the shaded column on the left representing the API | PARENT Cause of the Incident, and answer the questions |
| on the right. Enter secondary, contributing, or root causes of the Incident in Part K – Contributing Factors. | |

| G1 - Corrosion Failure - only one sub-cause can be picked from shaded left-hand column Corrosion Failure - Sub-cause: I + Extend Corresion: 1 + Extend Corresion: 2. Type of corresion: (select all that apply) - Gavanie - Amogheric - Microbiological - Sing Current - Microbiological - Sing Current Sing Corrosion (select all that apply) - Describe: 2b. Lif 2b Stray Current Sing Corrosion selected in Question 2 is based on the following: (select all that apply) - Field examination - Describe in the stray current Sing Corrosion selected in Question 2 is based on the following: (select all that apply) - Field examination - Describe in the stray current source: - West the failed item buried or submerged? - W West the failed item buried or submerged? - W West the failed item buried or submerged? - W West the failed item buried or submerged? - W West the failed item buried or submerged? - W West the failed item buried or submerged? - W West the failed item buried or submerged? - W West the failed item buried or submerged? - W West the failed item considered to be under calindic protection at the time of the incident? - W St | Apparent Cause: | G2 - Natural Force Damage | |
|---|---|---------------------------|--|
| Corrosion Failure - Sub-cause: If External Corrosion: I. Results of visual examination: I. Results of visual examination: - Garbanie - Atmospheric - Atmospheric - Start Current - Microbiological - Sective Seam - Other - Describe: 2b: Describe in Stary Current source: 2b: Describe in Stary Current source: 3b: The type(s) dorness or selected in Question 2 is based on the following (select at that apply) - Field examination - Other - Describe in Stary Current source: 4. Was failed tem buried or submerged? - If Cele Acamination - Under and the orabiding toning; of disconding of coating ovident at the point of the incoder? - If Yes, Was failed tem considered to be under cathodic protection at the time of the incoder? - If Yes, Other CPS Survey - Most teenal year conducted: - If Yes, Other CPS Survey - Most teenal year conducted: - If Yes, Other CPS Survey - Most teenal year conducted: - If Yes, Other CPS Survey - Most teenal year conducted: - If Yes, Other CPS Survey - Most teenal year conducted: - If Yes, Other CPS Survey - Most teeenal year conducted: <t< td=""><td colspan="3">G1 - Corrosion Failure - only one sub-cause can be picked from shaded left-hand column</td></t<> | G1 - Corrosion Failure - only one sub-cause can be picked from shaded left-hand column | | |
| HExternal Corresion: | Corrosion Failure – Sub-cause: | | |
| 1. Results of visual examination: -If Other, Describe: 2. Type of corrosion: (select all that apply) - Galvanic - Atmospheric - Status | - If External Corrosion: | · | |
| - If Other, Describe: - - - Cavaratic Cavaratic Cavaratic | 1. Results of visual examination: | | |
| 2. Type of corresion: (select all that apply) | - If Other, Describe: | | |
| - Calvanic - AttacyDeriv - Stray Current - Stray Current - Stray Current - Stray Current - Other - Current - Other - Cher | 2. Type of corrosion: (select all that apply) | | |
| Atmospheric Structurent Atmospheric Structurent Atmospheric Structurent Atmospheric Structurent Structure | - Galvanic | | |
| - Stray Current - Microbiological - Selective Seam - Other - Other - Other - If Other - Describe: 2. If 2 is Stray Current, specify 2b. Describe the stray current source: 2. If a stray Current, specify 2b. Describe the stray current source: 3. If a stray Current, specify 2b. Describe the stray current source: 3. If a stray Current, specify - Other - If Other - Describe: 4. Was the failed item buried or submerged? - If Other - Describe: 4. Was the failed item buried or submerged? - If Ves: 4. Was halfed item considered to be under cathodic protection at the time of the incident? 4. Was shielding, tenting, or disbording of coaling evident at the point of the incident? (select all that apply) If Yes, CP Annual Survey' - Most recent year conducted: If Yes, Cless Interval Survey' - Most recent year conducted: If Yes, Other CP Survey - Most recent year conducted: If Yes, Other CP Survey - Most recent year conducted: If Yes, Other CP Survey - Most recent year conducted: If Yes, Cless Interval Survey' - Most recent year conducted: If Yes, Other CP Survey - Most recent year conducted: If Yes, Other CP Survey - Most recent year conducted: If Yes, Other CP Survey - Most recent year conducted: If Yes, Other CP Survey - Most recent year conducted: If Neb - Corrosion? - If Other, Describe: - Other - Field examination: - If Other, Describe: - Corosion (select all that apply): - Field examination: - Other - Field examination - Other - Field examination | - Atmospheric | | |
| - Microbiological - Selective Seam - Other - Othe | - Stray Current | | |
| - Selective Seam - Other - If Other - Describe: 2a. If 2 is Stray Current, specify 2b. Describe the stray current source: 2a. If 2 is Stray Current, specify 2b. Describe the stray current source: 3. The type(s) of corrosion selected in Question 2 is based on the following: (select all that apply) - Field examination - Other - If Other - Describe: 4. Was the failed item buried or submerged? - If Ves: 4. Was failed item considered to be under cathodic protection at the time of the incident? - If Yes: 4. Was failed item considered to be under cathodic protection at the time of the incident? - If Yes: 4. Was failed item considered to be under cathodic protection at the time of the incident? - If Yes, Year protection started: 4. Was shielding, tenting, or disbording of coating evident at the point of the incident? - If Yes, Care Interval Survey' - Most recent year conducted: If Yes, Care Interval Survey' - Most recent year conducted: If Yes, Care Interval Survey' - Most recent year conducted: If Yes, Care Interval Survey' - Most recent year conducted: If Yes, Care Interval Survey' - Most recent year conducted: If Yes: Care of corrosion (select all that apply): - If Ne: - If Ne: - If Ne: - If Ne: - If Other, Describe: - If Other, Describe: - If Ne: - If Ne: - If Other, Describe: - If Other, Describe: - Corrosion (select all that apply): - Corrosion (select all that apply): - Corrosion (select all that apply): - Field examination: - If Other, Describe: - Tecise - Other - If Other, Describe: - Describe (select all that apply): - Field examination: - Use or orosion (select all that apply): - Field examination: - Descrimed by metallurgical analysis - Other - Descrimed by metallurgical analysis - Other - Descrimed by metallurgical analysis - Other - Deschaleg - Other - Low poin | - Microbiological | | |
| Other O | - Selective Seam | | |
| If Other – Describe: 2a. If 2 is Stray Current, specify 2b. Describe the stray current source: 3. The type(s) of corrosion selected in Question 2 is based on the following: (select all that apply) -Field examination -Other -If Other – Describe: 4. Was the failed item buried or submerged? -If Other – Describe: 4. Was the failed item considered to be under cathodic protection at the time of the incident? -If Yes: 4a. Was failed item considered to be under cathodic protection at the time of the incident? -If Yes: 4a. Was failed item considered to be under cathodic protection at the time of the incident? -If Yes: 4a. Was failed item considered to be under cathodic protection at the point of the incident? -If Yes: -If | - Other | | |
| 2a. If 2 is Stray Current, specify 2b. Describe the stray current source: 3. The type(s) of corrosion selected in Question 2 is based on the following: (select all that apply) - Eldermined by metallurgical analysis - Other - Other - If Yes: 4. Was the failed item considered to be under cathodic protection at the time of the incident? - If Yes: - If Yes: - Was the failed item considered to be under cathodic protection at the time of the incident? - Hes: - Was the failed item considered to be under cathodic protection at the time of the incident? - Was the failed item considered to be under cathodic protection at the time of the incident? - Hes: - Was the failed item considered to be under cathodic protection survey been conducted at the point of the incident? (select all that apply) - If Yes: - Hes: Other CP Survey' - Most recent year conducted: - If Yes: - If Yes: Other CP Survey' - Most recent year conducted: - If No: - If Not receiversite on the vicinity of the consistor? - Swas there observable damage to the coating or paint if the vicinity of the consistor? - Was the failed item extensity coating or paint if the vicinity of the consistor? - Cause of corrosion (select all that apply): - If Other, Describe: < | - If Other – Describe: | | |
| 2b. Describe the stray current source: | 2a. If 2 is Stray Current, specify | | |
| 3. The type(s) of corrosion selected in Question 2 is based on the following: (select all that apply) - Field examination - Determined by metallurgical analysis - Other - Other - If Other – Describe: 4. Was the failed item buried or submerged? - If Yes, 4. Was failed item considered to be under cathodic protection at the time of the incident? - If Yes, and the point of the point of the incident?, or disbonding of coating evident at the point of the incident?, Select all that apply) - If Yes, Cean protection Survey been conducted at the point of the incident? (select all that apply) - If Yes, Cean protection Survey been conducted at the point of the incident? (select all that apply) - If Yes, Cean protection Survey - Most recent year conducted: - If Yes, Cean therwal Survey' - Most recent year conducted: - If Yes, Cean therwal Survey' - Most recent year conducted: - If Yes, Other CP Survey - Most recent year conducted: - If Yes, Cean therwal Survey' - Most recent year conducted: - If Yes, Cean therwal Survey' - Most recent year conducted: - If Yes, Cean therwal Survey' - Most recent year conducted: - If Ne: - Describe other CP survey - If Ne: - Cause of corrosion (select all that apply); - Cause of corrosion (select all that apply); - Cause of corrosion (select all that apply); - Cause of corrosion selected in Question 7 is based on the following (select all that apply); - Field examination: - Other - Corrosive Corrinodity - Field examination: - Other - Corrosive Selected in Question 7 is based on the following (select all that apply); - Field examination - Other - Determined by metallurgical analysis - Other - Determined by metallurgical analysis - Other - Drop-out - Deat-Leg - Field examination: - If Other, Describe: - Curve chaningtion in bitres or biccides? - Other - Determined by metallurgical analysis - Other - Determ | 2b. Describe the stray current source: | | |
| - Field examination - Determined by metallurgical analysis - Other - Other - Other - Other - Other - If Other – Describe: - Other - If Yes: - Was the failed item considered to be under cathodic protection at the time of the incident? - If Yes: - Ves: | 3. The type(s) of corrosion selected in Question 2 is based on the following: (select all t | hat apply) | |
| Other O | - Field examination | | |
| Other If Other – Describe: If Yes: Vas the failed item buried or submerged? If Yes: A. Was failed item considered to be under cathodic protection at the time of the incident? A. Was failed item considered to be under cathodic protection at the time of the incident? A. Was failed item considered to be under cathodic protection at the point of the incident? A. Was shielding, tenting, or disbonding of coating evident at the point of the incident? A. Has one or more Cathodic Protection Survey been conducted at the point of the incident? A. Has one or more Cathodic Protection Survey been conducted. If "Yes, Close Interval Survey' – Most recent year conducted. If "Yes, Close Interval Survey' – Most recent year conducted. If "Yes, Close Interval Survey' – Most recent year conducted. If "Yes, Close Interval Survey' – Most recent year conducted. If "Yes, Other CP Survey' – Most recent year conducted. If No: | - Determined by metallurgical analysis | | |
| - If Other – Describe: 4. Was the failed item buried or submerged? - If Yes: 4. Was failed item considered to be under cathodic protection at the time of the incident? - If Yes, Yea protection started: - If Yes, Other Cathodic Protection Survey been conducted at the point of the incident? - Cathodic Protection Survey been conducted at the point of the incident? (select all that apply) - If Yes, Close Interval Survey' – Most recent year conducted: - If 'Yes, Other CP Survey' – Most recent year conducted: - If 'Yes, Other CP Survey' – Most recent year conducted: - If 'Yes, Other CP Survey' – Most recent year conducted: - If 'Yes, Other CP Survey' – Most recent year conducted: - Other Other Corrosion: - Corrosion (select all that apply): - Corrosive Commodity - If No: - Corrosive Commodity - Usual examination: - Other - If Other, Describe: - Corrosive Commodity - Other - Erosion - Other - If Other, Describe: - D | - Other | | |
| 4. Was the failed item buried or submerged? - If Yes: 4a, Was failed item considered to be under cathodic protection at the time of the incident? 4b, Was shielding, tenting, or disbonding of coating evident at the point of the incident? 4c, Has one or more Cathodic Protection Survey been conducted at the point of the incident? 4c, Has one or more Cathodic Protection Survey been conducted: If "Yes, Close Interval Survey" – Most recent year conducted: If "Yes, Close Interval Survey" – Most recent year conducted: If "Yes, Close Interval Survey" – Most recent year conducted: If "Yes, Other OS Survey" – Most recent year conducted: If "Yes, Other OS Survey" – Most recent year conducted: Bescribe other CP Survey" – Most recent year conducted: 6. Results of visual examination: - If Internal Corrosion 6. Results of visual examination: - Cause of corrosion (select all that apply): - Corrosive Cormodity - Witchological - Erosion - Other - Eld examination (select all that apply): - Field examination - Utermined by metallurgical analysis - Other - Location of corrosion (select all that apply): - Location of corrosion (select all that apply): | - If Other – Describe: | | |
| **. Was the failed item considered to be under cathodic protection at the time of the incident? • If Yes; **. Was failed item considered to be under cathodic protection at the time of the incident? •If Yes, Year protection started: ** | 4 Wee the foiled item buried or submarged? | | |
| A Was failed item considered to be under cathodic protection at the time of the incident? A. Was failed item considered to be under cathodic protection at the time of the incident? A. Was shielding, tenting, or disbonding of coating evident at the point of the incident? A. Has one or more Cathodic Protection Survey been conducted at the point of the incident? A. Has one or more Cathodic Protection Survey been conducted at the point of the incident? A. Has one or more Cathodic Protection Survey been conducted at the point of the incident? (select all that apply) If "Yes, CP Annual Survey" - Most recent year conducted: If "Yes, Cher CP Survey" - Most recent year conducted: If "Yes, Cher CP Survey" - Most recent year conducted: If "Yes, Cher CP Survey" - Most recent year conducted: If "Yes, Cher CP Survey" - Most recent year conducted: If "Yes, Cher CP Survey" - Most recent year conducted: If No: Ad. Was the failed item externally coated or painted? S. Was there advised be danage to the coating or paint in the vicinity of the corrosion? A. Breautic Ortosion: A. Resulted or visual examination: - If Other, Describe: Corrosive Commodity - Water drop-out/Acid - Microbiological - Corrosive Commodity - Water drop-out/Acid - Erosion - Other - Field examination selected in Question 7 is based on the following (select al that apply): - Field examination dby metallurgical analysis - Other - Uner ortific analysis - Other - Erosion - Determined by metallurgical analysis - Other - Elbow - Drop-Out - Dead-Leg - Other - If Other, Describe: - More pastful treated with corrosion inh bitors or biocides? - Ware cleaning pigs (or other operations) routinely utilized? - Ware cleaning pigs (or other operations) routinely utilized? - Ware cleaning pigs (or other operations) routinely utilized? - | | | |
| A trade failed information of the drinker attraction of protection at the link of the | - II Tes. | | |
| If Yes, Year protection started: 4b, Was shielding, tenting, or disbonding of coating evident at the point of the incident? 4c, Has one or more Cathodic Protection Survey been conducted at the point of the incident? (select all that apply) | 4a. Was failed item considered to be under cathodic protection at the time of the incident? | | |
| 4b. Was shielding, tenting, or disbonding of coating evident at the point of the incident? 4c. Has one or more Cathodic Protection Survey been conducted at the point of the incident? (select all that apply) 11 "Yes, CP Annual Survey" – Most recent year conducted: 11 "Yes, Close Interval Survey" – Most recent year conducted: 11 "Yes, Close Interval Survey" – Most recent year conducted: 11 "Yes, Close Interval Survey" – Most recent year conducted: 11 "Yes, Close Interval Survey" – Most recent year conducted: 11 "Yes, Close Interval Survey" – Most recent year conducted: 11 "Yes, Close Interval Survey" – Most recent year conducted: 11 "Yes, Close Interval Survey" – Most recent year conducted: 11 "Yes, Close Interval Survey" – Most recent year conducted: 11 No: Describe other CP survey 40. Was the failed item externally coated or painted? 5. Was there observable damage to the coating or paint in the vicinity of the corrosion? - If Internal Corrosion: 6. Results of visual examination: - Corrosive Commodity Vater drop-out/Acid - Microbiological - Ecrosion - Other - Other - Other - If Other, Describe: 8. The cause(s) of corrosion selected in Question 7 is based on the f | If Voc. Voor protoction started: | | |
| A variable of the set of the | - If res, real protection staned. | | |
| ac. Has one or more Cathodic Protection Survey been conducted at the point of the incident? (select all that apply) if "Yes, CP Annual Survey" – Most recent year conducted: if "Yes, Close Interval Survey" – Most recent year conducted: if "Yes, Other CP Survey" – Most recent year conducted: if No: Describe other CP survey 40. Was the failed item externally coated or painted? 5. 5. Was there observable damage to the coating or paint in the vicinity of the corrosion? 6. 6. Results of visual examination: - If Internal Corrosion 6. Results of visual examination: - Corrosive Commodity - Water drop-out/kcid - If Other, Describe: - If Other, Describe: 7. Cause of corrosion (select all that apply): - Corrosive Commodity - Water drop-out/kcid - If Other, Describe: - If Other 8. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Other - If Other, Describe: - If Other, Describe: - If Other, Describe: 9. Location of corrosion (select all that apply): - Field examination - Determined by metallurgical analysis - Other - If Other, Describe: - If Other, Describe: 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: - If Other, Describe: 10. Was the gas/fluid treated with corrosion in bitors or biocides? - If Other, Describe: - If Other, Describe: 11. Was the interior coated or lined with protective coating? - If Other, Describe: - If Othe | 4b. Was shielding, tenting, or disponding or coating evident at the point of the incident? | | |
| the incident? (select all that apply) If 'Yes, CDP Annual Survey' – Most recent year conducted: If 'Yes, CDP Interval Survey' – Most recent year conducted: If 'Yes, CDP Interval Survey' – Most recent year conducted: If 'Yes, CDP Interval Survey' – Most recent year conducted: If 'Yes, CDP Interval Survey' – Most recent year conducted: Describe other CP Survey 40. Was the failed item externally coated or painted? 5. Was the failed item externally coated or painted? 5. Was the failed item externally coated or painted? 6. Results of visual examination: F. Cause of corrosion (select all that apply): Cause of corrosion (select all that apply): Cause of corrosion selected in Question 7 is based on the following (select all that apply): Field examination Cher If Other, Describe: F. Cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): Field examination Cher If Other, Describe: F. Course on (select all that apply): Cher If Other, Describe: F. Course on (select all that apply): Field examination Cher If Other, Describe: F. Course on selected in Question 7 is based on the following (select all that apply): Cher If Other If Other, Describe: F. Course on (select all that apply): Field examination Field ex | Ac Has one or more Cathodic Protection Survey been conducted at the point of | | |
| If "Yes, CP Annual Survey" – Most recent year conducted: If "Yes, Close Interval Survey" – Most recent year conducted: If "Yes, Other CP Survey" – Most recent year conducted: Describe other CP survey If No: User CP Survey – Most recent year conducted: Describe other CP survey If No: If No: If No: If No: If No: If Corresting or painted? If Other, Describe other CP survey If Other, Describe: If Corresting of corrosting select all that apply: If Other, Describe: If Corrosting Select all that apply: If Other, Describe: If O | the incident? (select all that apply) | | |
| If "Yes, Cles Annual Sourcey" – Most recent year conducted: If "Yes, Cles Annual Sourcey" – Most recent year conducted: If "Yes, Other CP Survey" – Most recent year conducted: Describe other CP survey 4d. Was the failed item externally coated or painted? 5. Was there abservable damage to the coating or paint in the vicinity of the corrosion? • If Internal Corrosion: 6. Results of visual examination: • If Other, Describe: 7. Cause of corrosion (select all that apply): • Corrosive Commodity • Water drop-out/Acid • Microbiological • Erosion • Other • If Other, Describe: 8. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): • Field examination • Other • If Other, Describe: 9. Location of corrosion (select all that apply): • Low point in pipe • Elbow • Drop-out • Dead-Leg • Other • If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or line with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Wate corrosion coated or line with protective coating? 14. Were cleaning/dewatering pigs (or other operations) routinely utilized? | If "Voc. CP Appual Survey" Most recent year conducted: | | |
| If Yes, Close Interval Survey - Most Recent year conducted: If Yes, Other CP Survey' - Most recent year conducted: Describe other CP survey - If No: 4d. Was the failed item externally coated or painted? 5. Was there observable damage to the coating or paint in the vicinity of the corrosion? - If Internal Corrosion: 6. Results of visual examination: - Results of visual examination: - If Other, Describe: 7. Cause of corrosion (select all that apply): - Corrosive Commodity - Water drop-out/Acid - Microbiological - Erosion - Other - If Other, Describe: 8. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were cleaning/dewatering pigs (or other operations) routinely utilized? 14. Were cleaning/dewatering pigs (or other operations) routinely utilized? 15. Were cleaning/dewatering pigs (or other operations) routinely utilized? 15. Were cleaning/dewatering pigs (or other operations) routinely utilized? | II Tes, CF Allitual Survey – Most recent year conducted. | | |
| If "Yes, Other CP Survey" – Most recent year conducted: Describe other CP survey If No: Usual examination: If Internal Corrosion Results of visual examination: If Other, Describe: If Corrosive Commodity If Other, Describe: If Corrosive Commodity If Other, Describe: If Other, Describe | If Yes, Close Interval Survey – Most recent year conducted: | | |
| Bescribe other CP survey 4d. Was the failed item externally coated or painted? 4d. Was the failed item externally coated or paint in the vicinity of the corrosion? If Internal Corrosion: B. Results of visual examination: | If "Yes, Other CP Survey" – Most recent year conducted: | | |
| If No: 4d. Was the failed item externally coated or painted? 5. Was there observable damage to the coating or paint in the vicinity of the corrosion? FInternal Corrosion: - If Internal Corrosion: - If Other, Describe: - Corrosive Commodity - Vater drop-out/Acid - Microbiological - Erosion - Other - If Other, Describe: - If Other, Describe: - Other - Other - If other, Describe: - If Other, Describe: - Other - Use administric of the control of the | Describe other CP survey | | |
| 4d. Was the failed item externally coated or painted? 5. Was the gasfluid treated with corrosion in bitors or biocides? | - If No: | | |
| 5. Was there observable damage to the coating or paint in the vicinity of the corrosion? - If Internal Corrosion: 6. Results of visual examination: - If Other, Describe: 7. Cause of corrosion (select all that apply): - Corrosive Commodity - Water drop-out/Acid - Microbiological - Erosion - Other - Other - The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Other - Other - Other - Determined by metallurgical analysis - Other - Low point in pipe - Elbow - Drop-out - Dead-Leg - Other - Other - If Other, Describe: | 4d. Was the failed item externally coated or painted? | | |
| corrosion / - If Internal Corrosion: 6. Results of visual examination: - If Other, Describe: 7. Cause of corrosion (select all that apply): - Other, Describe: - Corrosive Commodity - Water drop-out/Acid - Microbiological - Erosion - Other - If Other, Describe: 8. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Determined by metallurgical analysis - Other - Low point in pipe - Elbow - Drop-out - Dead-Leg - Other - Other - Use the interior coated or lined with protective coating? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? | 5. Was there observable damage to the coating or paint in the vicinity of the | | |
| If internal Corrosion: If Other, Describe: If Other, Describe: Carosive Commodity - Corrosive Commodity - Water drop-out/Acid - Microbiological - Erosion - Other - If Other, Describe: S. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Determined by metallurgical analysis - Other - If Other, Describe: S. Location of corrosion (select all that apply): - If Other, Describe: S. Location of corrosion (select all that apply): - Uther - If Other, Describe: S. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Drop-out - Dop-out - Dead-Leg - Other - If Other, Describe: S. The cause(s) of corrosion inh bitors or biocides? S. Under the corrosion in the protective coating? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were corrosion courses or under the corrosion protective? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were corrosion courses or under the corrosion protective coating? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were cleaning/dewatering pigs (or other operations) routinely utilized? S. Were cleaning/dewatering pigs (or other operations) | | | |
| 6. Kesults of visual examination: - If Other, Describe: 7. Cause of corrosion (select all that apply): - Corrosive Commodity - Water drop-out/Acid - - Microbiological - - Other - If Other, Describe: 8. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - - Field examination - - Determined by metallurgical analysis - - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - - Low point in pipe - - Elbow - - Drop-out - - Other - - Dead-Leg - - Other - - Other - - Dead-Leg - - Other - - Under - - Was the interior coated or lined with protective coating? 10. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosing courses - 13. Were corresion - | - If Internal Corrosion: | | |
| - If Other, Describe: - | 6. Results of visual examination: | | |
| Caluse of corrosion (select all that apply): Corrosive Commodity - Water drop-out/Acid - Microbiological - Erosion - Other - If Other, Describe: S. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Determined by metallurgical analysis - Other - If Other, Describe: S. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Determined by metallurgical analysis - Other - If Other, Describe: - Use point in pipe - Elbow - Dead-Leg - Other - If Other, Describe: - Other - If Other, Describe: - Other - Use aps/fluid treated with corrosion inh bitors or biocides? - Other - Use aps/fluid treated with corrosion inh bitors or biocides? - Use aps/fluid treated with corrosion inh bitors or biocides? - Use aps/fluid treated with corrosion inh bitors or biocides? - Use aps/fluid treated with corrosion inh bitors or biocides? - Use aps/fluid treated with corrosion inh bitors or biocides? - Use aps/fluid treated with corrosion inh bitors or biocides? - Use aps/flui | - If Other, Describe: | | |
| - Corrostive Commodity - Water drop-out/Acid - Microbiological - Erosion - Other - If Other, Describe: 8. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Determined by metallurgical analysis - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - If Other, Describe: 9. Location of corrosion (select all that apply): - Elbow - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were corrosion coupons routinely utilized? 13. Were corrosion coupons routinely utilized? | 7. Cause of corrosion (select all that apply): | | |
| - Water didp-du/Add - Microbiological - Erosion - Other - If Other, Describe: - Field examination - Determined by metallurgical analysis - Other - Field examination - Determined by metallurgical analysis - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - Elbow - Elbow - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? | - Conosive Commodity | | |
| - Microbiological - Erosion - Other - If Other, Describe: - If Other, Describe: - Field examination - Determined by metallurgical analysis - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Dop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coursens routinely utilized? | - Water drop-out/Acid | | |
| - Elosion - Other - Other - If Other, Describe: - Field examination - Determined by metallurgical analysis - Other - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? | - Microbiological | | |
| - Other - If Other, Describe: - If Other, Describe: - Field examination - Determined by metallurgical analysis - Other - Other - If Other, Describe: - Other - If Other, Describe: - Low point in pipe - Elbow - Degad-Leg - Other - If Other, Describe: 10. Was the jas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? | - EIOSIOII | | |
| 8. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply): - Field examination - Determined by metallurgical analysis - Other - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Drop-out - Drop-out - Other - Other - Other - Drop-out - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | - Other Describer | | |
| - Field examination - Determined by metallurgical analysis - Other - If Other, Describe: - Low point in pipe - Elbow - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? | - II Olliel, Describe. | ll that apply): | |
| - Pield examination - Determined by metallurgical analysis - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Elbow - Drop-out - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion cupops routinely utilized? | 6. The cause(s) of corrosion selected in Question 7 is based on the following (select al | i (nat apply). | |
| - Other - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion cupops routinely utilized? | - Field examination | | |
| - Other - If Other, Describe: 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | | | |
| 9. Location of corrosion (select all that apply): - Low point in pipe - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | - Other Describe: | | |
| - Low point in pipe - Elbow - Elbow - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | - If Office, Describe. | | |
| - Elbow - Elbow - Drop-out - Drop-out - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | - Location of control of select all that apply). | | |
| - Drop-out - Dead-Leg - Other - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | Elbow | | |
| - Dead-Leg - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | | | |
| - Other - Other - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | - Drop-out | | |
| - Outer - If Other, Describe: 10. Was the gas/fluid treated with corrosion inh bitors or biocides? - 11. Was the interior coated or lined with protective coating? - 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? - 13. Were corrosion coupons routinely utilized? - | - Dedu-Ley Othor | | |
| 10. Was the gas/fluid treated with corrosion inh bitors or biocides? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | - Uliter Describe: | | |
| 10. Was the gashind treated with consistent in bios of blockes? 11. Was the interior coated or lined with protective coating? 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | - II Ottiei, Describe. | | |
| 12. Were cleaning/dewatering pigs (or other operations) routinely utilized? 13. Were corrosion coupons routinely utilized? | 11 Was the interior coated or lined with protective coating? | | |
| 13. Were corrosion coupons routinely utilized? | 12 Were cleaning/dewatering nigs (or other operations) routinely utilized? | | |
| | 13. Were corrosion coupons routinely utilized? | | |

| G2 - Natural Force Damage - only one sub-cause can be picked from shaded left-handed column | | |
|---|--|--|
| Natural Force Damage – Sub-Cause: | Other Natural Force Damage | |
| - If Earth Movement, NOT due to Heavy Rains/Floods: | | |
| 1. Specify: | | |
| - If Other, Describe: | | |
| - If Heavy Rains/Floods: | | |
| - If Other, Describe: | | |
| - If Lightning: | | |
| 3. Specify: | | |
| - If Temperature: | | |
| 4. Specify: | | |
| - If Other, Descr be: | | |
| - If Other Natural Force Damage: | The apparent equipe of the incident is under investigation | |
| 5. Describe: | by the NTSB. | |
| Complete the following if any Natural Force Damage sub-cause is selected. | | |
| 6. Were the natural forces causing the Incident generated in conjunction with an extreme weather event? | No | |
| 6a. If yes, specify: (select all that apply): | | |
| - Hurricane | | |
| - Tropical Storm | | |
| - I ornado | | |
| - Other Describe: | | |
| | | |
| G3 - Excavation Damage only one sub-cause can be picked from shaded left-han | nd column | |
| Excavation Damage – Sub-Cause: | | |
| Complete the following if Excavation Damage by Third Party is selected as the su | b-cause. | |
| 1. Did the operator get prior notification of the excavation activity? | | |
| 1a. If Yes, Notification received from (select all that apply): | 1 | |
| - One-Call System | | |
| - EXCAVATOR | | |
| - Landowner | | |
| 1b. Per the primary Incident Investigator results, did State law exempt the excavator from notifying the one-call center? | | |
| If yes, answer 1c. through 1e | | |
| 1c. select one of the following: | | |
| Describe: | | |
| 1d. Exempting authority | | |
| Te. Exempting criteria | Demonstration in coloridad | |
| Complete the following mandatory CGA-DIR I Program questions if any Excavation | Damage sub-cause is selected. | |
| Do you want PHMSA to upload the following information to CGA-DIRT (<u>www.cga-dirt.com</u>)? | | |
| 3. Right-of-Way where event occurred (select all that apply): | I | |
| - MuDIIC | | |
| - n Fublic, Specity. | | |
| - If Private. Specify: | | |
| - Pipeline Property/Easement | | |
| - Power/Transmission Line | | |
| - Railroad | | |
| Dedicated Public Utility Easement Enderel Lond | | |
| - Federal Land | | |
| - Data not collected - Unknown/Other | | |
| 4. Type of excavator : | | |
| 5. Type of excavation equipment : | | |
| 6. Type of work performed : | | |
| 7. Was the One-Call Center notified? - Yes - No | | |
| If No, skip to question 11 | | |
| 7a. If Yes, specify ticket number: | | |

| 7b. If this is a State where more than a single O | ne-Call Center exists, list the | |
|---|---|--|
| name of the One-Call Center notified: | | |
| 9. Were facility locate marks visible in the area of exe | cavation? | |
| 10. Were facilities marked correctly? | | |
| 11. Did the damage cause an interruption in service? | | |
| 11a. If Yes, specify duration of the interruption: (| nours) | |
| available as a choice, then one predominant sec | ond level CGA-DIRT Root Cause a | as well): |
| - Predominant first level CGA-DIRT Root Cause: | | |
| If One-Call Notification Practices Not Suffic | eient, Specify: | |
| If Locating Practices Not Sufficient, Specify If Execution Practices Not Sufficient, Specify | /: | |
| - If Other/None of the Above, Explain: | Sily. | |
| G4 - Other Outside Force Damage - only one s | sub-cause can be selected from the | he shaded left-hand column |
| Other Outside Force Damage – Sub-Cause: | | |
| - If Damage by Car, Truck, or Other Motorized Veh | nicle/Equipment NOT Engaged in | Excavation: |
| Vehicle/Equipment operated by: If this sub-section is picked, please comple | te questions 5-11 below | |
| - If Damage by Boats, Barges, Drilling Rigs, or Otl Mooring: | ner Maritime Equipment or Vess | els Set Adrift or Which Have Otherwise Lost Their |
| 2. Select one or more of the following IF an extreme | weather event was a factor: | |
| - Hurricane | | |
| - Tropical Storm | | |
| - Tomado - Heavy Rains/Flood | | |
| - Other | | |
| | - If Other, Describe: | |
| - If Intentional Damage: | | |
| 3. Specity: | - If Other Describe: | |
| - If Other Outside Force Damage: | - Il Other, Describe. | |
| 4. Describe: | | |
| Complete the following if Damage by Car, Truck, or selected. | Other Motorized Vehicle/Equipme | nt NOT Engaged in Excavation sub-cause is |
| Was the driver of the vehicle or equipment issued o incident? | ne or more citations related to the | |
| If 5 is Yes, what was the nature of the citations (selec | t all that apply) | |
| 5a. Excessive Speed | | |
| 5b.Reckless Driving | | |
| 5c. Driving Under the Influe | nce | |
| Sd. Other | Describe: | |
| 6. Was the driver under control of the vehicle at the | time of the collision | |
| Estimated speed of the vehicle at the time of imp | act (miles per hour)? | |
| 9 Turne of uchicle? | Unknown | |
| 9. Where did the vehicle travel from to hit the pipeli | ne facility? | |
| 10. Shortest distance from answer in 9. to the dama | aged pipeline facility (in feet): | |
| 11. At the time of the Incident, were protections inst pipeline facility from vehicular damage? | alled to protect the damaged | |
| If 11. is Yes, specify type of protection (sele | ct all that apply): | |
| 11a. Bollards/Guard Posts | w barriars and fances in | |
| instructions | y Damers and rences in | |
| 11c. Guard Rails | | |
| 11d. Other | | |
| | Describe | |
| G5 - Pipe, Weld, or Joint Failure | Use this section to report mate (from PART C, Question 3) is " | erial failures ONLY IF the "Item Involved in Incident" Pipe" or "Weld." |
| | Only one sub-cause can be sele | ected from the shaded left-hand column |

| Pipe, Weld or Join Failure – Sub-Cause: | |
|--|----------------|
| 1. The sub-cause shown above is based on the following (select all that apply): | |
| - Field Examination | |
| - Determined by Metallurgical Analysis | |
| - Other Analysis | |
| - II Ottel Analysis, Describe | |
| Report required) | |
| - Design-, Construction-, Installation-, or Fabrication-related | |
| 2. List contr buting factors: (select all that apply) | |
| - Fatigue or Vibration related: | |
| Specify: | |
| - If Other, Describe: | |
| - Other | |
| - If Other, Describe: | |
| - If Environmental Cracking-related: | |
| 3. Specify: | |
| - If Other, Describe: | |
| Complete the following if any Material Failure of Pipe or Weld sub-cause is selected | 1. |
| 4. Additional Factors (select all that apply): | |
| - Dent | |
| - Gouge | |
| - Pipe Bend | |
| - Arc Burn | |
| - Lack of Fusion | |
| - Lamination | |
| - Buckle | |
| - Wrinkle | |
| - Misalignment | |
| - Burnt Steel | |
| - Other, Describe: | |
| 5. Post-construction pressure test value (psig) | |
| Unknown | |
| G6 - Equipment Failure - only one sub-cause can be selected from the shaded le | ft-hand column |
| | |
| Equipment Failure – Sub-Cause: | |
| - If Malfunction of Control/Relief Equipment: | |
| 1. Specify: | |
| - Control Valve | |
| - Instrumentation | |
| - SCADA - Communications | |
| - Block Valve | |
| - Check Valve | |
| - Relief Valve | |
| - Power Failure | |
| - Stopple/Control Fitting | |
| - Plessule Regulator | |
| - Other | |
| - If Other, Describe: | |
| - If Compressor or Compressor-related Equipment: | |
| 2. Specify: | |
| - If Other, Describe: | |
| - If Threaded Connection/Coupling Failure: | |
| - If Other Describe: | |
| - If Non-threaded Connection Failure: | |
| 4. Specify: | |
| - If Other, Describe: | |
| - If Other Equipment Failure: | |

| 5. Describe: | |
|--|--------------------|
| 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 | |
| - Overpressurization | |
| - No support or loss of support | |
| - Manufacturing defect | |
| - Loss of electricity | |
| - Improper installation | |
| - Improper maintenance | |
| Mismatched items (different manufacturer for tubing and tubing fittings) | |
| - Dissimilar metals | |
| Breakdown of soft goods due to compatibility issues with transported | |
| gas/fluid | |
| Valve vault or valve can contributed to the release | |
| - Alarm/status failure | |
| - Misalignment | |
| - Thermal stress | |
| - Erosion/abnormal wear | |
| - Other | |
| - If Other, Describe: | |
| G7 - Incorrect Operation - only one sub-cause can be selected from the shaded I | eft-hand column |
| Incorrect Operation – Sub-Cause: | |
| - If Underground Gas Storage, Pressure Vessel, or Cavern Allowed or Caused to | Overpressure: |
| 1 Specify: | |
| - If Other, Describe: | |
| - If Other Incorrect Operation: | • |
| 2. Describe: | |
| Complete the following if any Incorrect Operation sub-cause is selected. | |
| 3. Was this incident related to: (select all that apply) | |
| - Inadequate procedure | |
| - No procedure established | |
| - Failure to follow procedure | |
| - Other: | |
| - If Other, Describe: | |
| 4. What category type was the activity that caused the Incident: | |
| 5. Was the task(s) that led to the incident identified as a covered task in your | |
| 52. If Ves, were the individuals performing the task(s) qualified for the task(s)? | |
| | |
| G8 - Other Incident Cause - only one sub-cause can be selected from the shade | d left-hand column |
| Other Incident Cause – Sub-Cause: | |
| - If Miscellaneous: | |
| 1. Describe: | |
| - If Unknown: | |
| 2. Specify: | |
| Unknown | |
| PART - H NARRATIVE DESCRIPTION OF THE INCIDENT | |

At approximately 4:36 PM EDT on May 4, 2020, TETLP's 30-inch diameter Line 10 transporting natural gas from Wheelersburg Compressor Station to Owingsville Compressor Station in Kentucky failed at M.P. 509.898. The failure resulted in an explosion and fire. TETLP received a call attendant alarm at 4:39 PM EDT from the Owingsville Compressor Station. During the ensuing minutes, TETLP began receiving reports from the public of a fire north of the Owingsville Compressor Station. TETLP personnel were immediately dispatched to close mainline block valve, MLV 10-367 at MP 517 and MLV 10-351 at the Owingsville Compressor Station, thus isolating the failed segment at 5:23 EDT. TETLP initiated the notification to the NRC at 5:23 PM EDT after receiving confirmed discovery of the pipeline failure and gathering the initial information to make the NRC notification with the call terminating at 5:40 PM EDT. Note that the NRC records the time the call was terminated on the NRC report and not the time of the call was initiated.

The apparent cause of the incident is under investigation by the NTSB. The incident cause is being reported as Other Incident Cause until the NTSB releases information about the incident cause. The Apparent Cause will be updated when it becomes available from the NTSB. Part J will be supplemented as well along with cause.

Note that E.1.a Estimated gas flow in pipe segment at the point and time of the incident (MSCF/D): is was approximately 1,433,000 Dth/d rate through the Owingsville compressor station which includes both Lines 10 and 25. Line 15, which shares the right of way with Lines 10 and 25 was isolated at the time of the incident.

11/23/2021

- Updated E.1 Estimated pressure in pipe segment at the point and time of the incident (psig) to 674 psig

- Updated PART G to indicate G2 - Natural Force Damage. The apparent cause of the incident is under investigation by the NTSB.

| PART I - PREPARER AND AUTHORIZED SIGNATURE | | |
|--|--|--|
| Preparer's Name | Mayra Salinas | |
| Preparer's Title | Senior Engineer | |
| Preparer's Telephone Number | | |
| Preparer's E-mail Address | | |
| Preparer's Facsimile Number | | |
| Local Contact Name | Nathan Atanu | |
| Optional Local Contact Email | | |
| Optional Local Contact Phone | | |
| Authorized Signer Name | Nathan Atanu | |
| Authorized Signer Title | Manager Operational Compliance | |
| Authorized Signer Telephone Number | | |
| Authorized Signer Email | | |
| Date | 11/23/2021 | |
| PART J - INTEGRITY INSPECTIONS | | |
| Complete the following if the "Item Involved in Accident" (from PART C, Question 3) is F | Pipe or Weld and the "Cause" (from Part G) is: | |
| Corrosion (any subCause in Part G1); or | | |
| Previous Damage due to Excavation Activity (subCause in Part G3); or | | |
| Previous Mechanical Damage NOT Related to Excavation (subCause in Part G4); | or | |
| Material Failure of Pipe or Weld (any subCause in Part G5) | | |
| J1. Have internal inspection tools collected data at the point of the Incident? | | |
| J1a. If Yes, for each tool and technology used provide the information below | | |
| for the most recent and previous tool runs: | | |
| Axial Magnetic Flux Leakage | | |
| Most recent run Year: | | |
| Most recent run Propulsion Method (select only one): | | |
| Most recent run Attuned to Detect (select only one): | | |
| Describe | | |
| If Metal Loss, specify (select only one): | | |
| Describe | | |
| Previous run Year: | | |
| Previous run Propulsion Method (select only one): | | |
| Previous run Attuned to Detect (select only one): | | |
| Describe | | |
| If Metal Loss, specify (select only one): | | |
| Describe | | |
| Circumferential/Transverse Wave Magnetic Flux Leakag | | |
| Most recent run Year: | | |
| Most recent run Propulsion Method (select only one): | | |

| Most recent run Resolution (select only one): | |
|---|--|
| Describe: | |
| Previous run Year: | |
| Previous run Propulsion Method (select only one): | |
| Provious run Posolution (select only one): | |
| | |
| Describe: | |
| Ultrasonic | |
| Most recent run Year: | |
| Most recent run Propulsion Method (select only one): | |
| Most recent run Attuned to | |
| Describe | |
| If Attuned to Wall Measurement, most recent run Metal Loss Resolution | |
| (select only one): | |
| Describe: | |
| Previous run Year: | |
| Previous run Propulsion Method (select only one): | |
| Previous run Attuned to | |
| Describe | |
| If Attuned to Wall Measurement, previous run Metal Loss Resolution | |
| (select only one): | |
| Describer | |
| Describe: | |
| Geometry/Deformation | |
| Most recent run Year: | |
| Most recent run Propulsion Method (select only one): | |
| Most recent run Resolution (select only one): | |
| Describe: | |
| Most recent run Measurement Cups (select only one): | |
| Previous run Year: | |
| Previous run Propulsion Method (select only one): | |
| Previous run Resolution | |
| Describe: | |
| Previous run Measurement Cups (select only one): | |
| Electromagnetic Acoustic Transducer (EMAT) | |
| (FMAT) Most recent run Year: | |
| Most recent run Propulsion Method (select only one): | |
| Previous run Vear | |
| Provious run Propulsion Mothod (select only one): | |
| Cothedia Protection Current Managurament (CDCM) | |
| | |
| Wost recent run Drenulaian Method (salest anti- ana) | |
| Most recent run Propulsion Method (select only one). | |
| Previous run Year: | |
| Previous run Propuision Method (select only one): | |
| Other | |
| Specify tool: | |
| Most recent run Year: | |
| Most recent run Propulsion Method (select only one): | |
| Previous run Year: | |
| Previous run Propulsion Method (select only one): | |
| Answer J1b only when the cause is: | |
| Previous Damage due to Excavation Activity (subCause in Part G3); or | |
| Previous Mechanical Damage NOT Related to Excavation (subCause in | |
| Part G4) | |
| J1b. Do you have reason to believe that the internal inspection was completed | |
| BEFORE the damage was sustained? | |
| . 12 Has one or more hydrotest or other pressure test been conducted since original | |
| construction at the point of the Incident? | |
| (initial post construction pressure test is NOT reported here) | |
| | |
| Most recent year tested: | |
| Test present in the first | |
| | |
| If Ves, and an investigative dig was conducted at the point of the Assident | |
| Most recent year conducted | |
| IVIUSI IECEIII year CUIIUUCIEU | |
| Most report year and wated | |
| IVIOST RECENT YEAR CONDUCTED | |
| If res, J3a. For each type, indicate the year of the most recent assessment: | |
| External Corrosion Direct Assessment (ECDA) | |
| Internal Corrosion Direct Assessment (ICDA) | |
| Stress Corrosion Cracking Direct Assessment (SCCDA) | |

| Confirmatory Direct Assessment | | |
|--|--|--|
| Other, specify type | | |
| J4. Has one or more non-destructive examination been conducted prior to the | | |
| Incident at the point of the Incident since January 1, 2002? | | |
| J4a. If Yes, for each examination conducted, select type of non-destructive | | |
| examination and indicate most recent year the examination was conducted: | | |
| | | |
| Radiography | | |
| Guided Wave Ultrasonic | | |
| Handheld Ultrasonic Tool | | |
| Wet Magnetic Particle Test | | |
| Dry Magnetic Particle Test | | |
| Other | | |
| Specify Type: | | |
| PART K - CONTRIBUTING FACTORS | | |
| The Apparent Cause of the accident is contained in Part G. Do not report the Apparent Cause again in this Part K. If Contributing Factors were | | |
| identified select all that apply below and explain each in the Narrative: | | |
| External Corrosion | | |
| External Corrosion Galvanic | | |
| External Corrosion, Salvanio | | |
| External Corrosion, Atmospheric | | |
| External Corresion, Microbiologically Induced | | |
| External Corrosion, Microbiologically Induced | | |
| External Corresion, Selective Seam | | |
| | | |
| Internal Corrosion, Corrosive Commodity | | |
| Internal Corrosion, Water drop-out/Acid | | |
| Internal Corrosion, Microbiological | | |
| Internal Corrosion, Erosion | | |
| Natural Forces | | |
| Earth Movement, NOT due to Heavy Rains/Floods | | |
| Heavy Rains/Floods | | |
| Lightning | | |
| Temperature | | |
| High Winds | | |
| Tree/Vegetation Root | | |
| Excavation Damage | | |
| 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 | | |
| Other Outside Force | | |
| Nearby Industrial, Man-made, or Other Fire/Explosion | | |
| Damage by Car, Truck, or Other Motorized | | |
| Vehicle/Equipment NOT Engaged in Excavation | | |
| Damage by Boats, Barges, Drilling Rigs, or Other Adrift | | |
| Maritime Equipment | | |
| 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 | | |
| Frequation | | |
| Intentional Damage | | |
| Other underground facilities buried within 12 inches of | | |
| the failure location | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Fabrication-related | | |
| Original ivianutacturing-related | | |
| Environmental Cracking-related, Stress Corrosion | | |
| Uracking | | |
| Environmental Cracking-related, Sulfide Stress Cracking | | |
| Environmental Cracking-related, Hydrogen Stress | | |
| Cracking | | |
| Environmental Cracking-related, Hard Spot | | |
| Equipment Failure | | |

| Malfunction of Control/Relief Equipment | |
|---|--|
| Compressor or Compressor-related Equipment | |
| Threaded Connection/Coupling Failure | |
| Non-threaded Connection Failure | |
| Defective or Loose Tubing or Fitting | |
| Failure of Equipment Body (except Compressor), Vessel | |
| Plate, or other Material | |
| Incorrect Operation | |
| Damage by Operator or Operator's Contractor NOT | |
| Excavation and NOT Vehicle/Equipment Damage | |
| Valve Left or Placed in Wrong Position, but NOT | |
| Resulting in Overpressure | |
| Pipeline or Equipment Overpressured | |
| Equipment Not Installed Properly | |
| Wrong Equipment Specified or Installed | |
| Inadequate Procedure | |
| No procedure established | |
| Failure to follow procedures | |