Mobil Joint Inspection HQ

# *EVALUATION REPORT OF A LIQUID PIPELINE CARRIER*

| *Operator Information* | |
|---|---|
| Operator Evaluated:<br>MOBIL PIPE LINE CO. | Unit Address:<br>P.O. BOX 900<br>DALLAS, TEXAS 75221<br>Emergency: 214-741-3106<br>Telephone: 214-658-3869<br>Fax: 214-658-5053 |
| Co. Official (Pres. or VP):<br>R.W. LAUGHTON<br>PRESIDENT, MOBIL PIPE LINE COMPANY | Address:<br>P.O. BOX 900, DALLAS, TEXAS 75221<br>Telephone: 214-658-2217<br>Fax: 703-846-5643 |
| Name of Unit Inspected | |
| OPINS I.D.#: | OPINS Unit I.D.#:<br>OPINS Inspection I.D.#: |

| Persons Interviewed | | Titles |
|---|---|---|
| STEVE STREATER | 703-846-5116 | D.O.T. COORDINATOR |
| STEVE KOETTING | 713-591-3723 | SR. ENGINEERING SPECIALIST |
| DR. DALE WILSON | 214-658-2444 | METALLURGICAL SPECIALIST |
| MIKE HARGROVE | 214-658-2374 | OPER. CONTROL CENTER PROJECTS COORDINATOR |
| RICHARD NORSWORTHY | 214-658-5113 | CORROSION SPECIALIST |
| TIM MURPHY | 214-658-3869 | SAFETY ADVISOR |
| JOE LUDIVICO | 214-658-2028 | SAFETY ADVISOR |

OPS Representative: Derick Turner, Rollin Miller, Warren Miller
R.G. HOLTER, PHD

Date: June 9, 1994
JUNE 6, 1994 to

What does the pipeline system in the maintenance district consist of: (Pipelines and pipe specifications, compressor stations including compressors and horsepower, control centers, offshore facilities, pipeline subsidiaries, etc.) Ask for listing and obtain maps for region files.

SEE ATTACHEMENTS

ARKansas Field Inspection 7/25-28/94
Drug Plan being revised.

ERW in Arkansas
Hydro Test 1991
2 Seam Failures, less than 1 joi
leng

| ERW PIPE DATA: (Pre-'70 Pipe) | N/A | Yes | No |
|---|---|---|---|
| 1. Does the operator's pipelines contain ERW pipe installed prior to 1970? | | X | |
| 2. Does the operator have records identifying the location of the ERW pipe? | | X | |
| 3. Has all of the ERW PIPE BEEN TESTED? | | X | |
| a. Per 195 criteria (minimum) | | | X |
| b. To less than 195 criteria | | X | |
| 4. Have retests of the ERW pipe been conducted? | | X | |
| a. Of all pipe | | | X |
| b. Of some pipe | | X | |
| 5. Has any of the ERW pipe experienced seam leaks or seam failures since the last test? AVAILABLE BY LINE SEGMENT ON REQUEST | | | |
| If so, have failures been metallurgically analyzed? a. All | | | |
| b. Some | | | |
| 6. Does the operator have a program to evaluate the integrity of its pre-'70 ERW pipe? | | X | |
| a. Pressure testing? | | X | |
| b. Close interval pipe-to-soil surveys? | | | X |
| c. Test digs/pipe inspections? | | X | |
| d. Describe program (Testing: pressure, frequency; Cathodic Protection; Results) ALL HVL LINES HAVE BEEN PRESSURE TESTED PER 195 CRITERIA, HVL LINES ARE BEING MODIFIED FOR INTERNAL INSPECTION & INTERNALLY INSPECTED (ONGOING). ALL HAZ. LIQUIDS LINES BEING RETESTED PER 195 CRITERIA (ONGOING). | | | |

If seam leaks/failures have occurred since last test, request leak history and test history, as well as any metallurgical analyses or other information identifying cause. Consider the following:

| A. Leak History | B. Test History |
|---|---|
| 1. Date | 1. Date |
| 2. Spill Size AVAILABLE BY INDIVIDUAL | 2. Pressure |
| 3. Commodity SYSTEM ON REQUEST | 3. % MOP AVAILABLE BY |
| 4. Failure Pressure | 4. % SMYS INDIVIDUAL |
| 5. % SMYS | 5. No. of failures SYSTEM ON |
| 6. MP on Pipeline | 6. Cause of failures REQUEST |
| 7. Cause | |
| 8. Length of Failure | |
| 9. Cathodic Protection | |

No HVL in Arkansas

| *HVL PIPELINE TESTING SUMMARY* | Yes | No | N/A |
|---|---|---|---|
| 1. Does the operator's pipelines transport HVLs? | X | | |
| 2. Have the HVL pipelines been tested in accordance with Subpart E of Part 195? | X | | |
| Required test completion dates are as follows:<br>a) Onshore Interstate Lines in HVL service prior to 9/8/8- & constructed prior to 1/8/71.<br>1) 50% by 9/15/83<br>2) 100% by 9/15/85 | X | | |
| b) Onshore Intrastate Lines in HVL service prior to 4/23/85 & constructed prior to 10/21/85<br>1) 50% by 4/23/88<br>2) 100% by 4/23/90 | X | | |
| 3. Have HVL pipeline s not tested by the dates specified in 2. above been converted subject to 195.5? | | | X |
| 4. Have HVL pipelines not tested in accordance with Subpart E of Part 195 had their operating pressures reduced to:<br>a) 80% of the 4-hour, documented, test pressure? | | | X |
| b) 80% of the 4-hour, documented, operating pressure? | | | X |
| Required pressure reduction dates are as follows:<br>a) Onshore interstate Lines constructed before 1/8/71 & in HVL service before 9/8/80, by 9/15/81 | | | X |
| b) Onshore Intrastate Lines constructed before 10/21/85 & in HVL service before 4/23/85, by 4/23/86. | | | X |

## *Pipeline Information*

Boundaries of Unit: (Geographical, Pipeline MP, Other)

TX-AR Stateline to AR-MI Stateline

Pipelines in Unit:

One 20" Pipeline

| *Designation* | *Size* | *Miles* | *Commodities(C, P, HVL, $NH_3$)* |
|---|---|---|---|
| Illinois Terminal | 20" | 296 | Crude Oil |

Breakout Tank Facilities: (Location)

No Tanks, 4 Pumping Station

S - Satisfactory U - Unsatisfactory N/A - Not Applicable

| Subpart F - Operation & Maintenance | | S | U | N/A |
|---|---|---|---|---|
| §195.401(b) | Has the operator corrected conditions that could adversely affect the safe operation of the pipeline within a reasonable time? | | | ✓ |
| §195.402(a) General | 1. Has the operator prepared a manual for normal operations & maintenance activities & handling abnormal operations & emergencies? | ✓ | | |
| | 2. Does the operator review the manual at intervals not exceeding 15 months, but at least each calendar year? | ✓ | | |
| | 3. Are the manuals available, as required? | ✓ | | |
| §195.402(b) Amendments | 1. Are procedure manuals adequate? | | ✓ | |
| | 2. Are amendments or withdrawals necessary to provide a reasonable level of safety? | ✓ Yes | | |

| Maintenance & Normal Operations | | S | U | N/A |
|---|---|---|---|---|
| §195.402(c) | (Note: If this section is used to review both procedures & performance & item is unsatisfactory, mark box with "P" for inadequate procedures or "F" for inadequate performance.) Written procedures must be <u>followed</u> to provide safety during maintenance and normal operations. | | | |
| DOT Liquids Manual, Section II-3 | Does the operator have procedures for:<br>1. Making construction records, maps, & operating history available as necessary for safe operation & maintenance? | | ✓ | |
| DOT Liquids Manual page III-1 | 2. Gathering of data needed for reporting accidents under Subpart B of this part in a timely and effective manner? | ✓ | | |
| | 3. Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this Subpart F? | | ✓ | |
| §195.402(c) | Are there procedures for: Reference Training in Manual<br>a. §195.403 Training | | ✓ | |
| DOT Liquids Manual, Page III-3 | b. §195.404 Maps & Records | ✓ | | |
| Operating Manual | c. §195.406 Maximum Operating Pressure | ✓ | | |
| | d. §195.408 Communications Suggest need description of Communication | ✓ | | |
| DOT Liquids Manual page III-61 | e. §195.410 Line Markers | ✓ | | |
| DOT Liquids Manual page III-45 & 52 | f. §195.412 Inspection of Right-of-Way & Navigable River Crossings | ✓ | | |
| DOT Liquids Manual, page III-64 | g. §195.414 Cathodic Protection Further Investigation if only -850MV | | ✓ | |
| | h. §195.416 External Corrosion Control | ✓ | | |
| | i. §195.418 Internal Corrosion Control | ✓ | | |
| DOT Liquids Manual, page III-39 Form DCO-3704 | j. §195.420 Valve Maintenance & Inspection Specify Items checked on form | | ✓ | |
| | k. §195.422 Pipeline Repairs | ✓ | | |
| | l. 1. Welding (pipe, sleeves, repair fittings) | ✓ | | |
| | 2. Non-destructive testing of welds | ✓ | | |
| DOT Manual, page VI-1 | 3. Pressure testing | ✓ | | |

| | | | | |
|---|---|---|---|---|
| Policy Manual 210.A.030 | 4. Marking of stock pipe Pressure Test on Pipe? | | ✓ | |
| DOT Manual, page III-77&79 | m. §195.424 Pipe Movement | ✓ | | |
| DOT Manual page III-84 | n. §195.426 Scraper and Sphere Facility Operation Suggest Diagram? | ✓ | | |
| DOT Manual page III-27 | o. §195.428 Overpressure Safety Device Maintenance & Inspection Need Specific Set Points | | ✓ | |
| DOT Manual page III-56 600 Series | p. §195.430 Firefighting Equipment Maintenance & Inspection Reference Engr Std 600 Series | | ✓ | |
| DOT Manual, page 27 | q. §195.432 Breakout Tank Inspections Change is mths on Form? | ✓ | | |
| DOT Liquids Manual, Page III-61 | r. §195.434 Signs | ✓ | | |
| | s. §195.436 Security of Facilities Need Procedure? | | ✓ | |
| DOT Manual, page III-62 Has Guidelines | t. §195.438 Smoking or Open Flames | ✓ | | |
| | u. §195.440 Public Education Program Ref in DOT Manual | ✓ | | |
| §195.402(c) | 4. Determining which pipeline facilities are located in areas that would require an immediate response by the operator to prevent hazards to the public if the facilities failed or malfunctioned? | Include Criteria ✓ | | |
| | 5. Analyzing pipeline accidents to determine their causes? | Needs Procedure | | |
| Emergency Plan Abnormal Operations | 6. Minimizing the potential for hazards identified under paragraph (c) (4) and minimizing the possibility of recurrence of accidents analyzed under paragraph (c) (5)? | " | " ✓ | " |
| Site Specific | 7. Starting up and shutting down any part of the pipeline system in a manner designed to assure operation within the limits prescribed by §195.406, considering the hazardous liquid or carbon dioxide in transportation, variations in altitude along the pipeline, and pressure monitoring and control devices? | Include reference in DOT manual | ✓ | |
| | 8. In the case of a pipeline that is not equipped to fail safe monitoring from an attended location pipeline pressure during startup until steady state pressure and flow conditions are reached and during shut-in to assure operation within limits prescribed by §195.406? | | | ✓ |
| | 9. In the case of facilities not equipped to fail safe that are identified under §195.402(c) (4) or that control receipt and delivery of the hazardous liquid, detecting abnormal operating conditions by monitoring pressure, temperature, flow or other appropriate operational data and transmitting this data to an attended location? | | | ✓ |
| DOT Manual page III-86 | 10. Abandoning pipeline facilities, including safe disconnection from an operating pipeline system, purging of combustibles, and sealing abandoned environmental hazards? | ✓ | | |
| Hazwoper Manual | 11. Minimizing the likelihood of accidental ignition of vapors in areas near facilities identified under paragraph (c) (4) of this section where the potential exists for the presence of flammable liquids or gases? | Reference Hazwoper Manual in DOT Manual ✓ | | |
| Has Guidelines | 12. Establishing and maintaining liaison with fire, police, and other appropriate public officials to learn the responsibility and resources of each hazardous liquid pipeline emergency and acquaint the officials with the operator's ability in responding to a hazardous liquid pipeline emergency and means of communication? ***In complying with §195.402(c)(12), operators must meet face-to-face with public officials and maintain an ongoing face-to-face liaison after the initial meeting.*** | ✓ Record on response | | |

| | | | | |
|---|---|---|---|---|
| DOT Liquids Manual, Section III-31 | 13. Periodically reviewing the work done by operator personnel to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found? | ✓ | | |

| | *Abnormal Operation (Control Center Function)* | S | U | N/A |
|---|---|---|---|---|
| §195.402(d) Abnormal Operation Manual page 9 | Written procedures must be followed to provide safety when operating design limits have been exceeded.<br><br>Does the operator have procedures for:<br>1. Responding to, investigating a correcting the cause of:<br>a. Unintended closure of valves? | ✓ | | |
| page 4 | b. Unintended shutdowns? | ✓ | | |
| page 2 | c. An increase or decrease in pressure? | ✓ | | |
| page 4 | d. A flow rate outside normal operating limits? | ✓ | | |
| page 7 | e. Loss of communications? | ✓ | | |
| page 9 | f. The operation of any safety device? | ✓ | | |
| " " | g. Any other malfunction of a component? | ✓ | | |
| " " | h. Any deviation from normal operation? | ✓ | | |
| page 10 | i. Any personnel error? | ✓ | | |
| | 2. Checking variations from normal operation after abnormal operations have ended at sufficient critical locations in the system to determine continued integrity and safe operation? | ✓ | | |
| | 3. Correcting variations from normal operation of pressure and flow equipment and controls? | ✓ | | |
| | 4. The operating personnel to notify responsible operator personnel when notice of an abnormal operation is received? | ✓ | | |
| DOT Liquids Manual page III-22 | 5. Periodically reviewing the response of operating personnel to determine the effectiveness of the procedures and taking corrective action where deficiencies are found? | ✓ | | |

| | *Emergencies* | S | U | N/A |
|---|---|---|---|---|
| §195.402(e) Emergencies Emergency Manual Form CO-8726 | Written procedures must be followed per §195.402 (a) to provide safety when an emergency condition occurs. Put People 1st, Move Procedure from abnormal to Emergency Manual<br><br>Does the operator have procedures for:<br>1. Receiving, identifying, & classifying notices of events which need immediate response by the operator or fire, police, or others, and notifying appropriate operator personnel for corrective action? | ✓ | | |
| | 2. Making a prompt & effective response to a notice of each type of emergency - fire, explosion, accidental release of hazardous liquid, operational failure, ~~national~~ natural disaster affecting the pipeline? | ✓ | | |
| | 3. Making personnel, equipment, instruments, tools & material available at the scene of an emergency? Ref. Hazwoper | ✓ | | |
| | 4. Taking action, such as emergency shutdown, or pressure reduction, to minimize release of liquid at a failure site? | ✓ | | |

| | | | | |
|---|---|---|---|---|
| | 5. Controlling the release of liquid at the failure site? | ✓ | | |
| | 6. Minimizing the public exposure and accidental ignition - evacuation, halting traffic on roads, railroads, etc? | ✓ | | |
| | 7. Notifying fire, police, others, of hazardous liquid emergencies - preplanned responses including HVLs? | ✓ | | |
| | 8. Determining extent & coverage of vapor cloud & hazardous areas of HVLs by using appropriate instruments? | ✓ | | |
| DoT Liquids Manual page III-22 | 9. Post accident review of employee activities to determine if procedures were effective - corrective action? | ✓ | | |

| *Subpart B - Reporting of Accidents & Safety Related Conditions* | | S | U | N/A |
|---|---|---|---|---|
| §195.402(f) DoT Liquids Manual Section III-11 | Written procedures must be followed to respond to the discovery safety-related conditions.<br><br>Does the operator have procedures for recognizing and discovery of safety-related conditions? | ✓ | | |
| Define significant for personnel | a. Are certain incidents telephonically reported? | ✓ | | |
| | b. Is a 30-day written report filed for those incidents required by reported? | ✓ | | |
| | c. Is there a procedure for reporting safety-related conditions? | ✓ | | |
| | d. If the operator reported safety-related conditions, did they use the proper criteria? | | | ✓ |
| | e. Was the report filed within five (5) working days of determination within ten (10) working days of discovery? | | | ✓ |
| | f. Was proper corrective action taken? | | | ✓ |

| *Training (Control Center & Field)* | | S | U | N/A |
|---|---|---|---|---|
| §195.403(a) | Each operator shall establish and conduct a written continuing training program to instruct operating & maintenance personnel to:<br><br>1. Carry out the operating, maintenance, emergency, response procedures established under §195.402? | ✓ Control | Center | |
| | 2. Know the characteristics and hazards of the liquids or carbon dioxide, including HVLs? - flammability, odorless vapors, water reactions? | | | ✓ Field |
| | 3. Recognize conditions that are likely to cause emergencies, predict the consequences of malfunction or failures - take appropriate actions? | ✓ Control | Center | |
| | 4. Take steps necessary to control any accidental release of hazardous liquid or carbon dioxide - to minimize the potential for fire, explosion, toxicity, or environmental damage? | ✓ | | |
| | 5. Learn the proper use of firefighting procedures & equipment - fire suits, breathing apparatus, etc? | | | ✓ |
| | 6. Safety repair facilities, special precautions, isolation, purging of HVLs? | | | ✓ |

| | | | | |
|---|---|---|---|---|
| DOT Manual page III-11 | 7. Recognize & report safety related conditions? | | | ✓ |
| §195.403(b) | At intervals not exceeding 15 months, but at least once each calendar year:<br>1. Does the operator review with personnel their performance in meeting the objective of the training program? | Control ✓ | Center Personnel ↑ | |
| | 2. Does the operator make appropriate changes to the training program? | ✓ | ↓ | |
| §195.403(c) | Does the operator require and verify that its supervisors maintain a thorough knowledge of the procedures they are responsible for? | ✓ | ✓ | |

| *Maps & Records* | | S | U | N/A |
|---|---|---|---|---|
| §195.404(a) DOT Liquids Manual, Section II-3 | Each operator shall maintain current maps & records of its pipeline systems that include at least the following information:<br>1. Location & identification of the following facilities:<br>i. Breakout tanks | | Field Check Arkansas ✓ | ✓ |
| | ii. Pump stations | ✓ | | |
| | iii. Scraper & sphere facilities | ✓ | | |
| | iv. Pipeline valves | ✓ | | |
| | v. Cathodically protected facilities | ✓ | | |
| | vi. Facilities to which §195.402(c)(9) applies | ✓ | | |
| | vii. Rights-of-way | ✓ | | |
| | viii. Safety devices to which §195.428 applies | ✓ | | |
| | 2. All crossings of public roads, railroads, rivers, buried utilities, & foreign pipelines. | ✓ | | |
| | 3. The maximum operating pressure of each pipeline. | ✓ | | |
| | 4. The diameter, grade, type, & normal wall thickness of each pipe. | ✓ | | |
| §195.404(b) | Does the operator maintain daily operating records that indicate the discharge pressures at each pump station for a period of 3 years? | ✓ | | |
| | Does the operator maintain daily operating records that indicate any emergency or abnormal operation to which the procedures of §195.402 apply for a period of 3 years? | ✓ | | |
| §195.404(c) | Does the operator maintain the following records for the periods specified: | ✓ | | |
| | 1. The date, location, & description of each repair made on pipe - maintained for life? | ✓ | | |
| | 2. The date, location, & description of each repair | ✓ | | |
| | Conditions other than on pipe - maintained for at least one year? | ✓ | | |
| | 3. Each inspection & test required by this Subpart (F) maintained for at least 2 years, or until the next inspection or test is performed, whichever is longer? | ✓ | | |

| *Maximum Operating Pressure (MOP) - All Systems* | | S | U | N/A |
|---|---|---|---|---|
| §195.406 | Except for surge pressures & other variations from normal operations, the MOP may not exceed any of the following?<br><br>1. The internal design pressure of the pipe determined by §195.106. | ✓ | Field Check | ✓ |

| | | | | |
|---|---|---|---|---|
| | 2. The design pressure of any other component of the pipeline. | ✓ | | |
| | 3. 80% of the test pressure for any part of the pipeline - hydrostatically tested - Subpart E. | ✓ | | |
| | 4. For individually installed components, 80% of the factory test pressure - prototype test pressure - excepted under §195.304. | ✓ | | |
| | 5. Onshore HVL pipelines constructed before 1/8/81: 80% of the previous operating pressure. | ✓ | | |
| | Pipeline may not be operated at a pressure that exceed 110% of the MOP.<br>1. Has the operating pressure exceeded the MOP by more than 110%? | ✓ | | |
| | 2. Are adequate controls and protective equipment installed to prevent the pressure from exceeding 110% of the MOP? | ✓ | | |

| | *Communications (Control Center)* | S | U | N/A |
|---|---|---|---|---|
| §195.408 | 1. Does the operator have a SCADA system? | ✓ | | |
| §195.408(a) | 2. Does the operator have a communications system to provide for the transmission of information needed for the safe operation of its pipeline system? | ✓ | | |
| §195.408(b) | 3. Does the operator have the communications to monitor operational data per §195.402(c) (9)? | ✓ | | |
| | 4. Does the operator have the communications to receive notices from operator personnel, public, & others about abnormal or emergency conditions and initiating corrective actions? | ✓ | | |
| | 5. Does the operator have two-way vocal communication between a control center & the scene of abnormal operations & emergencies? | ✓ | | |
| | 6. Does the operator have the communications with fire, police, & other appropriate public officials during emergency conditions, including a natural disaster? | ✓ | | |

| | *Line Markers* | S | U | N/A |
|---|---|---|---|---|
| §195.410(a)<br>DOT Manual page III-61 | Are line markers placed at each public road crossings, railroads crossing, and in sufficient number along the remainder of each buried line so that its location is accurately known? | ✓ | Field Check | |
| | 2. Do the line markers have the correct characteristics and information [warning, product name (including $CO_2$ if applicable), telephone number]? | ✓ | | |
| | 3. Line markers are not required at crossings of waterways or heavily developed urban areas, such as downtown business areas, where (1) placement is impracticable and (2) local government maintains current substructure records. | ✓ | | |
| §195.410(c) | 4. Are line markers placed where pipelines are aboveground in areas that are accessible to the public? | ✓ | | |

| *Inspection of Right-of-way & Crossings Under Navigable Waters* | | S | U | N/A |
|---|---|---|---|---|
| §195.412(a) DOT Liquids Manual page III-45 & 52 Form DCO-7532 | 1. Does the operator inspect the right-of-way at interval not exceeding 3 weeks, but at least 26 times each calendar year? Follow-up on Patrolling Form DCO-3703 | ✓ | | |
| | 2. Does the operator follow-up on problems noted by patrol? | ✓ | | |
| | Records, per §195.404(c) | ✓ | Field Check | |
| §195.412(b) Waterway Crossing Inspection Report Form DCO-9367 | 3. Does the operator inspect each crossing under a navigable waterway to determine the crossing condition at intervals not exceeding 5 years? | ✓ | | |
| §195.413 | (a) Has the operator conducted an underwater inspection of its pipelines in the Gulf of Mexico and its inlets between October 3, 1989 and November 16, 1992? | | | ✓ |
| | (b) When the operator discovers that a pipeline it operates is exposed on the seabed or constitutes a hazard to navigation does the operator: 1) Promptly, within 24 hours, notify the National Response Center of the location of the pipeline? | | | ✓ |
| | 2) Promptly, but not later than 7 days after discovery, mark the location of the pipeline in accordance with 33 CFR Part 64 at the ends of the pipeline segment and at intervals of not over 500 yards long, except that a pipeline segment less than 200 yard long need only be marked at the center. | | | ✓ |
| | 3) Place the pipeline so that the top of the pipe is 36 inches below the seabed for normal excavation or 18 inches for rock excavation within 6 months of discovery or not later than November 1 of the following year if the 6 month period is later than November 1 of the year the discovery is made. | | | ✓ |
| | Records, per §195.404(c) | | | |

| DOT Liquids Manual page III-64 *Cathodic Protection (All Systems)* | | S | U | N/A |
|---|---|---|---|---|
| §195.414(a) | 1. Is cathodic protection provided for: a. All effectively coated lines (except tanks & pump stations), unless required by §195.414(c)? | ✓ | | |
| §195.414(b) | b. All bare & poorly coated lines where active corrosion has been found? Bare unprotected 5 yr evaluation. Some Anodes on Bare | ✓ | | |
| §195.414(c) | c. All breakout tank areas and pump station piping where found to be necessary? | ✓ | | |
| §195.414(b) | 2. Have electrical surveys been performed to evaluate unprotected bare pipe for areas of active corrosion? (Interstate by 4/1/75), Intrastate by 10/20/88) | | Field Check | ✓ |
| | Records, per §195.404(c) | | | ✓ |
| §195.414(c) | 3. Have electrical surveys been performed to evaluate coated and bare unprotected breakout tank areas and pump station piping for the need for cathodic protection. (Interstate by 4/1/73, Interstate by 10/20/88) | | | ✓ |
| | Records, per §195.404(c). | | | ✓ |

| | | | | |
|---|---|---|---|---|
| §195.414(b) | 4. The operating pressure of bare pipe that has not been electrically inspected may not be increased. | | | ✓ |

| *External Corrosion Control (All Systems)* | | S | U | N/A |
|---|---|---|---|---|
| §195.416(a) | 1. Does the operator conduct tests on each underground facility under cathodic protection to determine whether the protection is adequate at intervals not exceeding 15 months, but at least once each calendar year?<br>Records per §195.404(c). | ✓ | | |
| | 2. Does the operator conduct sufficient tests on breakout tanks to determine the adequacy of cathodic protection at intervals not exceeding 15 months, but at least each calendar year? | ✓ | | |
| | Records per §195.404(c) | ✓ | | |
| | 3. Are casing potentials monitored to detect the presence of shorts (monitor on a calendar year, not to exceed 15 months). | ✓ | | |
| | 4. Does the operator have a procedure for investigating conditions that indicate a casing may be shorted (potential nearly equivalent or less than 100 mv difference). | Not in Procedure | | |
| DOT Liquids Manual page III-70 | 5. Does the shorted casing procedure require (or has the operator made):<br>a. Determination of a course of action to correct or negate the effects of the shorts within 6 months of discovery. | Remove casing when feasible, short or not | | |
| | b. Verification that a short exists Pan Handle Method | ✓ | | |
| | c. Clearing of the short, if practicable. (This must be considered before alternative measures may be used) | ✓ | | |
| | d. Filling the casing/pipe annular space with high- dielectric casing filler or other material which provides a corrosion inhibiting environment, if it is impractical to clear the short. | Seals with Caps | Vents | |
| | e. If (c) & (d) are determined to be impractical, monitoring the casing with leak detection equipment | Not in Procedure | | ✓ |
| | for leakage at intervals not exceeding 7½ months, but at least twice each calendar year. | | | ✓ |
| | f. If a leak is found by monitoring casings with leak detection equipment, immediate corrective action to eliminate the leak & further corrosion. | | | ✓ |
| | g. In lieu of other corrective actions, monitoring the condition of the carrier pipe using an internal inspection device at specified intervals. | | | ✓ |
| §195.401(b) | 6. Does the operator investigate & take appropriate action when indications of casing shorts are found? | ✓ | | |
| §195.416(b) DOT Manual page III-68, B. | 7. Does the operator maintain the test leads required for cathodic protection? | ✓ | | |
| §195.416(c) | 8. Does the operator conduct inspections of each of its cathodic protection rectifiers at intervals not exceeding 2½ months, but at least six times each calendar year. | ✓ | | |
| | Records, per §195.404(c) | ✓ | | |

| | | | | |
|---|---|---|---|---|
| §195.416(b | 9. Was remedial action taken within a reasonable time to correct deficiencies indicated by the monitoring of the cathodic protection? | | | ✓ |
| §195.416(d) | 10. Does the operator conduct electrical inspection of the bare pipe that is not cathodically protected & study leak records to determine if additional protection is needed at intervals not exceeding 5 years? | | | ✓ |
| | Records, per §195.404(c). | | | ✓ |
| §195.416(e) DOT Liquid Manual Page III-18+2 | 11. Whenever any buried pipe is exposed for any reason, does the operator examine for evidence of external corrosion? | ✓ | | |
| Form DCO-7740 | Does he investigate further to determine the extent of the corrosion, if found? | ✓ | | |
| | Is adjacent pipe exposed & examined? | ✓ | | |
| | Records, per §195.404(c). | | | |
| §195.416(f) DOT manual page III-67 | 12. If the operator finds generally corroded pipe, is pipe replaced, repaired, or pressure reduced? | ✓ | | |
| | Is the Battelle Formula used to determine allowable pressure? | | | |
| §195.416(g) | 13. If the operator finds corroded pipe with isolated pitting, is pipe replaced, or pressure reduced? | ✓ | | |
| | Is the Battelle Formula used to determine allowable pressure? | | | |
| §195.416(h) | 14. Does the operator clean and coat pipe exposed to the atmosphere with material suitable for the prevention of atmospheric corrosion? | ✓ | | |

| | *Internal Corrosion Control (All Systems)* | S | U | N/A |
|---|---|---|---|---|
| §195.418(a) DOT Manual page III-68 | 1. Has the operator investigated the corrosive effect of the hazardous liquid or carbon dioxide and has he taken adequate steps to mitigate corrosion? | ✓ | | |
| | Records, per §195.404(c). | | | |
| §195.418(b) | 2. If corrosion inhibitors are used to mitigate internal corrosion, coupons must be used to determine their effectiveness. | ✓ | | |
| | Records, per §195.404(c). | | | |
| | 3. Does the operator examine coupons or other methods to determine the effectiveness of the inhibitors at intervals not exceeding 7½ months, but at least twice each calendar year? | ✓ | | |
| | Records, per §195.404(c). | | | |
| §195.418(d) | 4. Whenever any pipe is removed from the pipeline for any reason, does the operator inspect the internal surface for evidence of corrosion? | ✓ | | |
| | Does he investigate adjacent pipe to determine the extent of the corrosion? | ✓ | | |
| | Is the Battelle Formula, or other, used? | ✓ | | |
| | Records, per §195.404(c). | | | |
| | 5. If the operator finds the pipe is internally corroded beyond the wall thickness tolerances of the pipe specification, is the pipe replaced or the pressure reduced? (Note that repair is not a stated option.) | ✓ | | |
| | Is the Battelle Formula, or other, used to determine the allowable pressure? (Note the use of the formula is recommended for electrolytic & galvanic corrosion Chemical attack is not mentioned.) | ✓ | | |

| *Valve Maintenance* | | S | U | N/A |
|---|---|---|---|---|
| §195.420<br>DOT Liquids Manual<br>Page III-39 | 1. Does the operator maintain each valve that is necessary for the safe operation of its pipeline systems in good working order at all times? | ✓ | | |
| | 2. Does the operator inspect each mainline valve to determine that it is functioning properly at intervals not exceeding 7½ months, but at least twice each calendar year? | ✓ | | |
| | Records, per §195.404(c). | ✓ | | |
| | 3. Does the operator provide protection for each valve from unauthorized operation & from vandalism? | ✓ | | |

| *Pipeline Repairs* | | S | U | N/A |
|---|---|---|---|---|
| §195.422 | 1. Does the operator, in repairing its pipeline systems, insure that the repairs are made in a safe manner & are made so as to prevent damage to persons or property? | ✓ | | |
| | Records of repairs, per §195.404(c). | ✓ | | |

| *Pipe Movement* | | S | U | N/A |
|---|---|---|---|---|
| §195.424<br>DOT Liquids Manual<br>page III-77+79 | When moving any line pipe, does the operator comply with the precautions specified in §195.424? | ✓ | | |
| | 1) Pressure reduction to 50% MOP for all lines. | ✓ | | |
| | 2) For HVL lines <u>joined</u> by welding:<br>a) When it does not contain HVL, unless impractical; | ✓ | | |
| | b) Precautions to protect public; <u>and</u> | ✓ | | |
| | c) Pressure reduced to 50% MOP or lowest practical level (minimum= V.P. + 50 psi). | ✓ | | |
| | 3) For HVL lines <u>not joined</u> by welding:<br>a) When it does not contain HVL, unless impractical; | ✓ | | |
| | b) Precautions to protect public; <u>and</u> | ✓ | | |
| | c) Line section is isolated | ✓ | | |

| DOT Liquids Manual Page III-84, Form DOT-7577 *Scraper & Sphere Facilities* | | S | U | N/A |
|---|---|---|---|---|
| §195.426 | 1. Does the operator, have a relief device capable of safely relieving pressure in the barrel before insertion or removal of scrapers or spheres? | ✓ | | |
| | 2. Does he have a suitable device to indicate that pressure has been relieved, or a means to prevent insertion? | ✓ | | |

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| Page III-27 Forms DOT-7539 & 7539-A *Overpressure Safety Devices* | | S | U | N/A |
|---|---|---|---|---|
| §195.428(a) | 1. Does the operator inspect and test each pressure limiting device, relief valve, pressure regulator, of other items of pressure control equipment determine that it is functioning properly, in good mechanical condition, has adequate capacity, and is reliable? | ✓ | | |

| | | | | |
|---|---|---|---|---|
| | 2. Does the operator inspect & test overpressure safety devices at the following intervals?<br>a. Non-HVL pipelines: once each calendar year, within 15 month intervals. | ✓ | | |
| | b. HVL pipelines: twice each calendar year, within 7.5 month intervals. | | | ✓ |
| | c. Relief valves on HVL breakout tanks within 5 year intervals | | | ✓ |
| | Records, per §404(c). | | | ✓ |

| DOT Liquids Manual Page III-56 | ***Firefighting Equipment*** | S | U | N/A |
|---|---|---|---|---|
| §195.430 | Does the operator maintain adequate firefighting equipment at each pump station & breakout tank area? | ✓ | | |
| | The equipment must be:<br>a. In proper operating condition at all times | ✓ | | |
| | b. Plainly marked so that its identity as firefighting equipment is clear. | ✓ | | |
| | c. Located so that it is easily accessible during a fire | ✓ | | |

| | ***Breakout Tanks*** | S | U | N/A |
|---|---|---|---|---|
| §195.432 | Does the operator inspect each breakout tank (atmospheric and pressured) each calendar year, | | | ✓ |
| | within 15 month intervals? | | | ✓ |
| | Records, per §195.404(c). | | | ✓ |

| DOT Liquids Manual, Page III-24 Form DCO-7277 | ***Tank Inspection Survey*** No Tanks in Arkansas | Yes | No | N/A |
|---|---|---|---|---|
| 1. Does operator periodically perform an internal visual inspection of tank bottom? | | | | ✓ |
| 2. Do internal inspections of tank bottoms include cleaning by sand blasting? | | | | |
| 3. Does operator have an established criteria to determine when repair and/or replacement of the tank bottoms are required? | | | | |
| 4. Does the operator periodically ultrasonic test (U.T.) the tank bottoms? | | | | |
| 5. Does the operator monitor cathodic protection on tank bottoms by: Some Tanks<br>a) Buried reference half-cells under the center of the tanks? | | ✓ | | |
| b) Other configurations of buried half-cells under the tanks? | | | | ✓ |
| c) The conduit method of inserting half-cells beneath the tanks? | | | | ✓ |
| d) Taking potentials around the periphery of tanks at least at each quadrant? | | ✓ | | |

| | ***Signs*** | S | U | N/A |
|---|---|---|---|---|
| §195.434 | Does the operator maintain signs visible to the public around each pumping station & breakout tank area? | ✓ | | |
| | Do the signs contain the name of the operator and an emergency telephone number? | ✓ | | |

| | *Security of Facilities* | S | U | N/A |
|---|---|---|---|---|
| §195.436 | Does the operator provide protection for each pumping station and breakout tank area & other exposed facilities from vandalism & unauthorized entry? | ✓ | | |

| | *Smoking or Open Flames* | S | U | N/A |
|---|---|---|---|---|
| §195.438 | Does the operator prohibit smoking & open flames in each pump station & breakout tank area where there is the possibility of the presence of hazardous liquids or flammable vapors? | ✓ | | |

| | *Public Education* | S | U | N/A |
|---|---|---|---|---|
| §195.440 | Has the operator established a continuing educational program to enable the public, government, persons engaged in excavation to recognize a hazardous liquid or carbon dioxide pipeline emergency and report it to the operator, fire, police, or others? Conducted in English and other languages where appropriate? | ✓ | | |
| | Conducted in English & other languages where appropriate? | ✓ | | |
| | Records, per §195.404(c) | ✓ | | |

| DOT Manual, page VI-1 | *Subpart E - Hydrostatic Testing* | S | U | N/A |
|---|---|---|---|---|
| §195.302(a) Form DCO-8482 | 1. Does the operator hydrostatically test each new pipeline system - each pipeline system in which pipe has been relocated or replaced, or that part of a pipeline system that has been relocated or replaced? | ✓ | | |
| §195.302(b) | 2. Have HVL lines been tested per the requirements of this section? | ✓ | | |
| §195.302(c) | 3. Does the operator test its pipelines to the correct pressures & for the correct duration? | ✓ | | |
| §195.304(a) | 4. Does the operator, hydrostatically test under 302 all pipe all attached fittings, including components, unless otherwise permitted by §195.304(b)? | ✓ | | |
| §195.306 | 5. Is water used as the test medium, except as allowed? | ✓ | | |
| §195.308 | 6. Does the operator, hydrostatically test, pipe associated with tie-ins, either with the section to be tied in or separately? | ✓ | | |
| §195.310(a) | 7. Does the operator maintain a record of each hydrostatic test required by this Subpart - record of the latest test must be retained. | ✓ | | |
| §195.310(b) | 8. Does the record required by paragraph (a) of this Section include: a. Pressure recording charts | ✓ | | |
| | b. Test instrument calibration data. | ✓ | | |
| | c. Name of operator - person responsible - test company used, if any | ✓ | | |
| | d. Date and time of the test. | ✓ | | |
| | e. Minimum test pressure. | ✓ | | |
| | f. Test medium. | ✓ | | |
| | g. Description of facility tested and test apparatus. | ✓ | | |
| | h. Explanation of any pressure discontinuities - test failures - that appear on the pressure recording chart. | ✓ | | |

| | | | | |
|---|---|---|---|---|
| | i. Where elevation differences in test section exceed 100 feet - a profile - elevation over entire length of test section. | ✓ | | |

| | ***Subpart D - Welding*** | S | U | N/A |
|---|---|---|---|---|
| Welding Manual | The compliance with welding requirements for pipe replaced or repaired in the course of pipeline maintenance is required by §195.422, as well as §195.200. | ✓ | | |
| §195.214 page 5 | Is welding performed by welders who have been qualified in accordance with Section 3 of the API Standard 1104 or Section IX of the ASME Boiler & Pressure Vessel Code, except that a welder qualified under an earlier edition than listed in Par. 195.3 may weld, but may not requalify under that earlier edition? | ✓ | | |
| Records of Welders Qualification | a. Is the welding performed in accordance with welding procedures qualified to produce welds meeting the requirements of API 1104, Section 6? Form DCO-8713A, page 22 | ✓ | | |
| §195.228(b) | 1) Butt welding | ✓ | | |
| | 2) Fillet welding (sleeves, repair fittings) | ✓ | | |
| **Alert Notice 3/13/88** | **In the welding of repair sleeves and fittings, do the operator's procedures give consideration to:** 1) The use of low hydrogen welding rod | ✓ | | |
| | 2) Cooling rate of the weld | ✓ | | |
| | 3) Metallurgy of the materials welding (weldability carbon equivalent) | ✓ | | |
| | 4) Proper support of the pipe in the ditch | ✓ | | |
| §195.214(b) | b. Is each welding procedure recorded in detail? | ✓ | | |
| | c. Are welding procedures qualified in accordance with a standard that is accepted by the industry - API 1104; ASME Boiler & Pressure Vessel Code; Other | ✓ | | |
| §195.214(a) | d. Has the quality of the test welds to qualify the procedures been determined by destructive testing? | ✓ | | |
| §195.241(b) | e. Are detailed results of the procedure qualification tests recorded & retained? | ✓ | | |

| | ***Welding: Arc Burns*** | S | U | N/A |
|---|---|---|---|---|
| §195.226(a) | 1. Does the operator require the repair (within pipe & (b) specification thickness tolerances) or replacement of arc burns? | ✓ | | |
| §195.226(b) | 2. Does the operator require verification of the removal of the metallurgical notch by nondestructive testing? (Ammonium persulfate) | ✓ | | |
| §195.226(c) | 3. When pipe is being welded, is ground wire attached to pipe other by welding? Need procedure to identify contact of ground wire to pipe | | ✓ | |

| | *Welds: Acceptability & Nondestructive Testing* | S | U | N/A |
|---|---|---|---|---|
| §195.228/23 | 1) Does the operator nondestructively test welds to insure their acceptability according to Section 6 of API 1104 & per the requirements of §195.234 in regard to the number of welds to be tested? | ✓ | | |
| §195.234(b) | 2) Is nondestructive testing of welds performed:<br>a) In accordance with written procedures for NDT. | ✓ | | |
| | b) By qualified personnel. | ✓ | | |
| | c) By a process that will indicate any defects that may affect the integrity of the weld. | ✓ | | |
| §195.266 | 3. Does the operator maintain records of the total number of girth welds & the number nondestructively tested, including the number rejected & the disposition of each rejected weld? | ✓ | | |

| | *Welds: Repair or Removal of Defects* | S | U | N/A |
|---|---|---|---|---|
| §195.230 | Does the operator remove and/or repair welds that are unacceptable in accordance with the requirements of §195.230? | ✓ | | |

| | *FIELD REVIEW OF PIPELINE* | S | U | N/A |
|---|---|---|---|---|
| §195.262 | 1. Pumping Stations | ✓ | | |
| §195.262 | 2. Station Safety Devices | ✓ | | |
| §195.308-12 | 3. Pre-pressure Testing Pipe-Marking & Inventory | | | ✓ |
| §195.403 | 4. Knowledge of Operating Personnel | ✓ | | |
| §195.410 | 5. ROW Markers | ✓ | | |
| §195.412 | 6. River Crossing | ✓ | | |
| §195.414 | 7. Cathodic Protection | ✓ | | |
| §195.416 | 8. Pipeline Components Exposed to the Atmosphere | ✓ | | |
| §195.416 | 9. Rectifiers | ✓ | | |
| §195.420 | 10. Valve Maintenance | ✓ | | |
| §195.420 | 11. Valve Protection from Unauthorized Operation & Vandalism | ✓ | | |
| §195.426 | 12. Scraper & Sphere Facilities & Launchers | ✓ | | |
| §195.428 | 13. Pressure Limiting Devices | ✓ | | |
| §195.428 | 14. Relief Valves - Location - Pressure Setting -Maintenance | ✓ | | |
| §195.428 | 15. Pressure Controllers | ✓ | | |
| §195.430 | 16. Fire Fighting Equipment | ✓ | | |
| §195.432 | 17. Breakout Tanks | | | ✓ |
| §195.434 | 18. Signs - Pumping Station - Breakout Tanks | ✓ | | |
| §195.436 | 19. Security - Pumping Stations - Tanks | ✓ | | |
| §195.438 | 20. No Smoking Signs | ✓ | | |