

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, DC 20590**

In the Matter of)	
Kinder Morgan Liquids Terminals, LLC,)	CPF No. 1-2011-5008
Respondent.)	

CONSENT AGREEMENT AND ORDER

From May 2008 to December 2010, pursuant to Chapter 601 of 49 United States Code, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), conducted on-site inspections of the pipeline facilities of Kinder Morgan Liquids Terminals, LLC (KMLT or Respondent), at its terminal facilities in Perth Amboy, New Jersey (Terminal).

Pursuant to the these inspections, the Director, Eastern Region, OPS (Director), issued to Respondent, by letter dated October 11, 2011, a Notice of Probable Violation and Proposed Civil Penalty, and Proposed Compliance Order (Notice), a copy of which is attached hereto as Appendix A. In accordance with 49 C.F.R. § 190.207, the Notice proposed (1) finding that Respondent had committed various violations of 49 C.F.R. Part 195, (2) assessing a total civil penalty of \$41,000 for two of the alleged violations, and (3) ordering Respondent to take certain measures to correct the alleged violations. The Notice also included a warning of a probable violation under 49 C.F.R. Part 194 and advised KMLT to take corrective action or face future possible enforcement action.

KMLT responded to the Notice by letter dated October 17, 2011, and requested a hearing, which was held on November 22, 2011. Subsequent to the hearing, on July 27, 2012, KMLT proposed to resolve this matter, as well as another enforcement action, CPF No. 1-2011-5009, via an administrative consent agreement.

Having agreed that settlement of this proceeding will avoid further administrative proceedings or litigation, pursuant to 49 C.F.R. Part 190, without adjudication of any issue of fact or law, and upon consent and agreement of Respondent and PHMSA (Parties), the Parties agree as follows:

I. General Provisions.

1. For purposes of this Consent Agreement and Order (Agreement), Respondent acknowledges that as operator of the Terminal, KMLT and its pipeline system located at the Terminal are subject to the jurisdiction of the Federal pipeline safety laws, 49 U.S.C. 60101, *et seq.*, and the regulations and administrative orders issued thereunder.¹ As used in this Agreement, the terms “pipeline system” and “pipeline facility” shall be defined as in 49 C.F.R. Part § 195.2. Respondent acknowledges that it received proper notice of PHMSA’s action in this proceeding and that the Notice states claims upon which relief may be granted pursuant to 49 U.S.C. 60101, *et seq.*, and the regulations and orders issued thereunder.

2. Respondent consents to the issuance of this Agreement, and hereby waives any further procedural requirements with respect to its issuance. Respondent waives all rights to contest the adequacy of notice or the validity of the Agreement, including all rights to administrative or judicial hearings or appeals.

3. This Agreement shall apply to and be binding upon PHMSA, and upon Respondent, its officers, directors, and employees, and its successors, assigns, or other entities or persons otherwise bound by law. Respondent agrees to provide a copy of this Agreement, and any incorporated work plans and schedules, to all of KMLT’s officers, employees, and agents whose duties might reasonably include compliance with this Agreement.

4. For all transfers of ownership or operating responsibility of Respondent’s pipeline system at the Terminal, KMLT will provide a copy of this Agreement to the prospective transferee at least 60 business days prior to such transfer and simultaneously provide written notice of the prospective transfer to the Director and the Associate Administrator for Pipeline Safety, PHMSA, 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

5. This Agreement constitutes the final, complete and exclusive agreement and understanding between the Parties with respect to the settlement embodied in this Agreement, and the Parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Agreement and its appendices.

6. Nothing in this Agreement affects or relieves KMLT of its responsibility to comply with all applicable requirements of the Federal pipeline safety laws, 49 U.S.C. § 60101 *et seq.*, and the regulations and orders issued thereunder. Nothing in this Agreement alters PHMSA’s right of access, entry, inspection, and information gathering or its authority to bring any enforcement actions against Respondent pursuant to the Federal pipeline safety laws, the regulations and orders issued thereunder, or any other provision of Federal or State law.

7. This Agreement does not waive or modify any Federal, State, or local laws or regulations that

¹ For a map showing the jurisdictional components of Respondent’s system at the Terminal, see drawings entitled, “Kinder Morgan Perth Amboy, NJ, Liquids Terminal, Tank Field P&ID’s,” prepared by STV Incorporated, consisting of 41 sheets, dated May 6, 2013 (on file with PHMSA Eastern Region).

are applicable to KMLT or its pipeline systems. This Agreement is not a permit, or a modification of any permit, under any Federal, State, or local laws or regulations. Respondent remains responsible for achieving and maintaining compliance with all applicable Federal, State, and local laws, regulations and permits.

8. This Agreement does not create rights in, or grant any cause of action to, any third party not party to this Agreement. The U.S. Department of Transportation (DOT) is not liable for any injuries or damages to persons or property arising from acts or omissions of Respondent or its officers, employees, or agents carrying out the work required by this Agreement. KMLT agrees to hold harmless DOT, its officers, employees, agents, and representatives from any and all causes of action arising from any acts or omissions of Respondent or its contractors in carrying out the work required by this Agreement.

9. The Parties agree that the facts are as alleged in each item of the Notice and that each item may be considered by PHMSA to be a prior offense in any future PHMSA enforcement action against KMLT. This Agreement, however, does not constitute a finding of violation of any Federal law or regulation and may not be used in any civil proceeding of any kind as evidence or proof of any fact, fault or liability, or as evidence of the violation of any law, rule, regulation or requirement, except in a proceeding to enforce the provisions of this Agreement or in future PHMSA enforcement actions.

10. Respondent agrees to complete the corrective actions specified in Section II (Work to be Performed) of this Agreement and to pay the civil penalties specified in Section III (Civil Penalties).

II. Work to be Performed.

11. KMLT agrees to perform all the corrective actions set forth in the proposed Compliance Order, as included in the Notice and incorporated herein as part of Appendix A, except for Item 7 (see Paragraph 12 below), and Item 11 (see Paragraph 13 below).

12. With respect to Item 7 of the proposed Compliance Order, Respondent agrees to perform all the corrective actions set forth in Appendix B to this Agreement, entitled "Perth Amboy Terminal MOP Substantiation" (Perth Amboy Project), which is hereby incorporated into this Agreement. The Perth Amboy Project may be revised to incorporate new information obtained during the evaluations and remedial activities performed as part of the Perth Amboy Project. Respondent must submit any proposed Perth Amboy Project revisions to the Director for approval. The Director may approve proposed revisions, in whole or in part, or may direct KMLT to revise or modify the Perth Amboy Project as necessary, as set forth in Section III (Review and Approval Process) and Section IV (Dispute Resolution) below.

13. With respect to Item 11 of the proposed Compliance Order, Respondent agrees to complete all work within 180 days of the Effective Date of this Agreement, as defined below.

14. The Director may grant an extension of time for completion of any of the work to be performed under this Section II upon Respondent's timely, written request that demonstrates both good cause for an extension and provides sufficient detail to enable the Director to evaluate

Respondent's request.

III. Review and Approval Process.

15. With respect to any submission under Section II of this Agreement that requires the approval of the Director, the Director may: (a) approve, in whole or in part, the submission; (b) approve the submission on specified conditions; (c) disapprove, in whole or in part, the submission; or (d) any combination of the foregoing. In the event of approval in whole, in part, or upon conditions, KMLT will proceed to take all actions required by the submission as modified by the Director, subject to Respondent's right to invoke procedures in Section IV with respect to any conditions identified by the Director. In the event the Director does not accept all or any portion of a submission, the Director will provide KMLT with a written notice of the deficiencies. Respondent will correct all deficiencies within the time specified by the Director and resubmit it for acceptance. If Respondent fails to correct the specified deficiencies, the Director may invoke the dispute resolution process provided in Section IV below.

IV. Dispute Resolution.

16. The Director and Respondent will informally attempt to resolve any disputes arising under this Agreement. If KMLT and the Director are unable to informally resolve the dispute within 15 business days, Respondent may request in writing, within 10 business days, a written determination resolving the dispute by the Associate Administrator for Pipeline Safety, PHMSA. Along with its request, Respondent will provide the Associate Administrator with all information KMLT believes is relevant to the dispute. If the request is submitted as provided herein, the Associate Administrator will issue a written determination that shall be final. The existence of a dispute and PHMSA's consideration of matters placed in dispute shall not excuse, toll, or suspend any term or timeframe for completion of any work to be performed under this Agreement during the pendency of the dispute resolution process, except as agreed by the Director or the Associate Administrator in writing.

V. Enforcement of Agreement and Order.

17. This Agreement, including all plans and schedules incorporated by reference, is subject to all enforcement authorities available to PHMSA under 49 U.S.C. § 60101, *et seq.*, and 49 C.F.R. Part 190, including administrative civil penalties under 49 U.S.C. § 60122 of up to \$200,000 per violation for each day the violation continues and referral of the case to the Attorney General for judicial enforcement, if PHMSA determines that Respondent is not complying with the terms of the Agreement, in accordance with determinations made by the Director, or if appealed, in accordance with decisions of the Associate Administrator. The Perth Amboy Project and all other work plans and associated schedules developed under Section II shall be automatically incorporated into this Agreement and are enforceable in the same manner.

VI. Civil Penalties.

18. Within 15 days from the execution of this Agreement, Respondent agrees to pay to the United States a total civil penalty in the amount of Forty-One Thousand Dollars (\$41,000.00), said

amount being assessed by PHMSA for the following alleged violations set forth in the Notice:

- a. \$20,500, as proposed for Item 11 in the Notice, for the alleged violation of 49 C.F.R. § 195.404(c)(3); and
- b. \$20,500, as proposed for Item 12 in the Notice, for the alleged violation of 49 C.F.R. § 195.404(c)(3).

19. Payment of the \$41,000.00 must be made within 15 days of the Effective Date, as defined below. Federal regulations (49 C.F.R. § 89.21(b)(3)) require such payment to be made by wire transfer through the Federal Reserve Communications System (Fedwire), to the account of the "U.S. Treasury." Questions concerning wire transfers should be directed to: Financial Operations Division (AMZ-341), Federal Aviation Administration, Mike Monroney Aeronautical Center, P. O. Box 269039, Oklahoma City, Oklahoma 73125. The telephone number of the Division is (405) 954-8893.

20. Failure to pay the penalty set forth above within 15 days of the Effective Date will result in the accrual of interest at the current annual rate in accordance with 31 U.S.C. § 3717, 31 C.F.R. § 901.9 and 49 C.F.R. § 89.23. Pursuant to those same authorities, a late penalty charge of six percent (6%) per annum will be charged if payment is not made within 110 days of service of a Notice of Late Payment. Furthermore, failure to pay the civil penalty may result in referral of the matter to the Attorney General for appropriate action in a United States District Court.

VII. Miscellaneous.

21. PHMSA will have the right to inspect the records and facilities of KMLT or any contractor or agent thereof upon reasonable notice, to confirm that the Perth Amboy Project and other compliance terms of this Agreement are being undertaken in conformity with the terms of this Agreement.

22. Except as otherwise provided herein, this Agreement may be modified only by the mutual agreement of the Parties and set forth in writing and signed by both Parties.

23. Each undersigned representative of the Parties certifies that he is fully authorized by the party represented to enter into the terms and conditions hereof and to execute and legally bind that party to it.

VIII. Effective Date and Term.

24. The "Effective Date" as used herein is the date on which this Agreement has been signed by both KMLT and PHMSA. Unless specified to the contrary, all deadlines for actions required by the Agreement run from the effective Date of the Agreement.


IX. Termination.

25. This Agreement will terminate upon payment of the full penalty amount set forth in Section VI (Civil Penalties) and the completion of all terms set forth in Section II (Work to Be Performed), as determined by the Director. Respondent may request, and PHMSA will provide, written confirmation when this Agreement is terminated. Nothing in this Agreement prevents Respondent from completing any of the obligations earlier than the deadlines provided for herein.


The Parties hereby agree to all conditions and terms of this Agreement:

For PHMSA:

For Kinder Morgan Liquids Terminals, LLC:



Jeffrey D. Wiese
Associate Administrator for
Pipeline Safety, PHMSA



Carlos Munguia
Vice-President
Kinder Morgan Liquids Terminals, LLC

JUL 17 2013
Date

Date

APPENDIX A



U.S. Department
Of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**

820 Bear Tavern Road, Suite 103
West Trenton, NJ 08628
609.989.2171

**NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER**

OVERNIGHT EXPRESS MAIL

October 11, 2011

David Vattimo
Regional Vice President
Kinder Morgan Liquid Terminals, LLC
8500 West 68th Street
Argo, IL 60501

CPF 1-2011-5008

Dear Mr. Vattimo:

During the months of May 2008 through December 2010, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code conducted inspections the Kinder Morgan Liquid Terminals, LLC (KM) facility in Perth Amboy, New Jersey.

As a result of the inspection, it appears that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violations are:

1. §195.589 What corrosion control information do I have to maintain?

(c) You must maintain a record of each analysis, check, demonstration, examination, inspection, investigation, review, survey, and test required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that corrosion requiring control measures does not exist. You must retain these records for at least 5 years, except that records related to Secs. 195.569, 195.573(a) and (b), and 195.579(b)(3) and (c) must be retained for as long as the pipeline remains in service.

KM failed to maintain records in sufficient detail to demonstrate the adequacy of corrosion control measures for the replaced line segment from Station 47+59 to 52+69 at the intersection of State Street and High Street in Perth Amboy, New Jersey.

During the inspection, a PHMSA representative discovered that the subject line segment had been replaced in the third quarter of 2007. PHMSA representative subsequently requested that KM personnel provide any and all records that showed the replacement pipe was coated in accordance with §195.557(a). KM personnel indicated that the subject line segment was coated when relocated; however, KM could not produce any records or documentation that showed the pipe was coated.

2. §195.310 Records.

(a) A record must be made of each pressure test required by this subpart, and the record of the latest test must be retained as long as the facility tested is in use.

KM failed to retain the pressure test record of the replaced pipeline segment from Station 47+59 to 52+69 at the intersection of State Street and High Street in Perth Amboy, New Jersey. The subject line was in service at the time of the inspection.

According to KM personnel, a section of pipeline at State Street and High Street was replaced and tied in to an existing pipe. Under §195.308, a pipe associated with a tie-in section must be pressure tested, either with the section to be tied into or separately. KM could not produce any records that showed compliance with the requirements prescribed in §195.310.

3. §195.404 Maps and Records.

(a) Each operator shall maintain current maps and records of its pipeline systems that include at least the following information;

(1) Location and identification of the following pipeline facilities;

(iv) Pipeline valves;

KM failed to maintain current maps and records of the Perth Amboy facility that included the location and identification of its pipeline valves.

At the time of the inspection, PHMSA requested that KM personnel provide documentation of its pipeline valves at the Perth Amboy facility. KM had no records or documentation illustrating all the pipeline valves at the Perth Amboy facility and KM personnel confirmed to a PHMSA representative that the current system maps did not identify pipeline valves.

4. §195.262 Pumping equipment.

(b) The following must be provided in each pump station:

(1) Safety devices that prevent overpressuring of pumping equipment, including the auxiliary pumping equipment within the pumping station.

KM failed to provide safety devices that prevent overpressuring of pumping equipment, including the auxiliary pumping equipment within the pumping station at the Perth Amboy facility.

During the field inspection, a PHMSA representative observed that no safety devices to prevent equipment overpressure were installed to protect pump station equipment. KM personnel stated that overpressure safety devices were not installed and that there was no need for safety devices. KM personnel did not produce any documentation to substantiate that safety devices were not required.

5. §195.589 What corrosion control information do I have to maintain?

(c) You must maintain a record of each analysis, check, demonstration, examination, inspection, investigation, review, survey, and test required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that corrosion requiring control measures does not exist. You must retain these records for at least 5 years, except that records related to Secs. 195.569, 195.573(a) and (b), and 195.579(b)(3) and (c) must be retained for as long as the pipeline remains in service.

KM failed to maintain records of each atmospheric corrosion inspection required by §195.583(a) in sufficient detail to demonstrate the adequacy of corrosion control measures.

During the inspection, a PHMSA representative requested that KM personnel provide any and all atmospheric corrosion inspection records for the Perth Amboy facility. KM personnel could not produce any documentation relating to atmospheric corrosion inspection.

6. §195.404 Maps and Records.

(c) Each operator shall maintain the following records for the periods specified;

(3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

Section 195.430(a) requires operators to ensure all firefighting equipment is in proper operating condition at all times. During the inspection, KM personnel stated that they did not have any records to show the inspection and testing of firefighting equipment at each pump station and breakout tank area in the Perth Amboy facility. KM failed to maintain records of each firefighting equipment inspection and/or test, ensuring that it is in proper operating condition.

7. §195.404 Maps and Records.

(a) Each operator shall maintain current maps and records of its pipeline systems that include at least the following information;

(3) The maximum operating pressure of each pipeline.

KM failed to maintain current maps and records that included the maximum operating pressure (MOP) of each of their jurisdictional pipeline segments in or affiliated with the Perth Amboy facility.

At the time of the inspection during the field review, a PHMSA representative requested that KM personnel provide documentation of the MOP of each pipeline segment. KM did not have any records or other related documentation demonstrating an established MOP of each pipeline segment at its Perth Amboy facility.

8. §195.505 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:

(a) Identify covered tasks;

KM failed to identify tank painting or the application of coatings and their repair as a covered task in its written qualification program. During the field review, it was observed that in-service breakout tanks 52 and 53 were being sand-blasted and painted by a third-party contractor. A PHMSA representative requested that KM personnel provide a list of covered tasks performed on the pipeline facility. KM personnel could not produce any documentation that showed tank painting or the application of coatings and their repair as a covered task.

9. §195.404 Maps and Records.

(c) Each operator shall maintain the following records for the periods specified;

(3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

KM failed to maintain records of each breakout tank high level alarm inspection and test required by §195.428(d) for at least 2 years. In accordance with §195.428(d), overfill protection systems are required to be inspected and tested. KM could not produce any records of inspection and tests for each of the breakout tank's hi-level alarms, which are part of the overfill protection system at the Perth Amboy facility.

10. §195.404 Maps and Records.

(a) Each operator shall maintain current maps and records of its pipeline systems that include at least the following information;

(1) Location and identification of the following pipeline facilities;

(i) Breakout tanks;

KM failed to maintain current maps and records of its pipeline systems that include the location and identification of Department of Transportation (DOT) jurisdictional breakout tanks at the Perth Amboy facility.

At the time of the inspection, KM personnel provided a copy of a list dated 4/3/2008 that identified all the DOT breakout tanks at the facility. KM personnel also provided maps and drawings, all of which were inconsistent with the list. Therefore, the drawings did not accurately depict the current location and identification of breakout tanks. KM personnel acknowledged that the maps and drawings were not current.

11. §195.404 Maps and Records.

(c) Each operator shall maintain the following records for the periods specified;

(3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

KM failed to maintain records of forty-four (44) tank thermal relief valve inspections on breakout tanks required by §195.428(a) for at least 2 years.

During the field inspection, a PHMSA representative observed that each of the twenty-two (22) breakout tanks had a thermal relief valve at an inlet and an outlet valve totaling forty-four (44) thermal relief valves. A PHMSA representative requested KM personnel provide any and all records pertaining to tank thermal relief valves inspection pursuant to §195.428(a). However, KM personnel could not produce any records of tank thermal relief valve inspections at the time of the inspection.

12. §195.404 Maps and Records.

(c) Each operator shall maintain the following records for the periods specified;

(3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

KM failed to maintain records of routine in-service inspections on all atmospheric and low-pressure steel aboveground breakout tanks required by §195.432(b). Accordingly, API 653 paragraph 6.3.1.2 requires the interval of such inspection be consistent with conditions at the particular site, but shall not exceed one month. At the time of the inspection, KM could not produce records of monthly routine in-service inspections.

13. §195.402 Procedural manual for operations, maintenance, and emergencies.

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

(3) Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

KM failed to include a process in its corrosion control procedures to require and verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures for which they are responsible in accordance to §195.555.

During an interview, a PHMSA representative discovered that the supervisor responsible for ensuring compliance with its corrosion control procedures did not have thorough knowledge of corrosion control. In addition, KM could not produce procedures that showed the requirement prescribed in §195.555.

After the completion of the inspection, the subject KM supervisor provided KM procedure *T-O&M 903* which documented the requirement prescribed in §195.555.

14. **§194.107 General response plan requirements**

(a) Each response plan must include procedures and a list of resources for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge. The “substantial threat” term is equivalent to abnormal operations outlined in 49 CFR 195.402(d). To comply with this requirement, an operator can incorporate by reference into the response plan the appropriate procedures from its manual for operations, maintenance, and emergencies, which is prepared in compliance with 49 CFR 195.402.

(c) Each response plan must include:

(iv) The name, address, and telephone number of the oil spill response organization, if appropriate,

KM failed to include the name, address and telephone number of any oil spill response organizations within its Facility Response Plan (FRP). After the inspection, KM demonstrated compliance by providing an updated FRP that included current and accurate information.

15. **§195.404 Maps and Records.**

(c) Each operator shall maintain the following records for the periods specified;

(3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

KM failed to maintain records of each inspection and test required by §195.412(a) for the calendar year 2007. Under §195.412(a), KM shall, at interval not exceeding 3 weeks, but at least 26 times each calendar year, inspect the surface condition on or adjacent to each pipeline right-of-way (ROW). In lieu of individual inspection records, KM provided an inspection letter that stated inspections were conducted in year 2007.

16. **§195.264 Impoundment, protection against entry, normal/emergency venting or pressure/vacuum relief for aboveground breakout tanks.**

(a) A means must be provided for containing hazardous liquids in the event of spillage or failure of an aboveground breakout tanks.

KM failed to provide a means for containing hazardous liquids in the event of spillage or failure of an aboveground breakout tank.

Based on a field observation, it was noted that pipelines penetrating the dike walls at tanks 27, 28, and 29, were left unsealed thereby compromising containment volume. A PHMSA representative requested that KM personnel provide spill containment data on breakout tanks; however, KM could not provide any documentation.

Proposed Civil Penalty

Under 49 United States Code, § 60122, you are subject to a civil penalty not to exceed \$100,000 for each violation for each day the violation persists up to a maximum of \$1,000,000 for any related series of violations. The Compliance Officer has reviewed the circumstances and supporting documentation involved in the above probable violations and has recommended that you be preliminarily assessed a civil penalty of \$41,000 as follows:

Proposed Civil Penalty (Cont)

<u>Item number</u>	<u>PENALTY</u>
11	\$20,500
12	\$20,500

Warning Items

With respect to items 13-16 we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct these items. Be advised that failure to do so may result in KM being subject to additional enforcement action.

Proposed Compliance Order

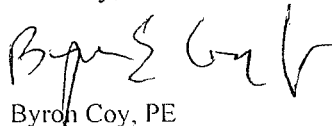
With respect to items 1-12 pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to KM. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within **30** days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

Please address your correspondence to Byron Coy, PE, Director, PHMSA Eastern, 820 Bear Tavern Rd, Suite 103, Bear Tavern Rd, W. Trenton, NJ 08628. Please refer to **CPF 1-2011-5008** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Byron Coy, PE
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration

Enclosures: *Proposed Compliance Order*
Response Options for Pipeline Operators in Compliance Proceedings

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Kinder Morgan Liquid Terminals, LLC (KM) a Compliance Order incorporating the following remedial requirements to ensure the compliance of KM with the pipeline safety regulations:

1. Regarding Item Number 1 of the Notice pertaining to §195.589(c), KM must excavate the pipeline segment at State Street and High Street to obtain pipe coating information. KM must have a completed record including, but not limited to, pipe coating information of the subject pipe to ensure compliance with §195.557(a) within 120 days of receipt of the Final Order.
2. Regarding Item Number 2 of the Notice pertaining to §195.310(a), KM must submit documentation of the pressure test for pipeline section at State Street and High Street to ensure compliance with §195.308, within the timeframe prescribed in Item 13 of this Compliance Order. If, KM is unable to produce those records, KM must conduct a pressure test on the subject pipe and then record the results in accordance with §195.310 within 120 days of receipt of the Final Order
3. Regarding Item Number 3 of the Notice pertaining to §195.404(a)(1)(iv), KM must update maps and records to include information regarding Department of Transportation (DOT) jurisdictional pipeline valves and interconnecting pipeline segments within 120 days of receipt of the Final Order.
4. Regarding Item Number 4 of the Notice pertaining to §195.262(b)(1), KM must develop in accordance with §195.262 to address the installation of safety devices at the Perth Amboy facility or procedures that demonstrate such safety devices are not necessary for operation at the Perth Amboy facility. If KM establishes procedures to install safety devices, KM must then implement the procedures at the Perth Amboy facility and complete the installation of safety valves within 240 days of receipt of the Final Order.
5. Regarding Item Number 5 of the Notice pertaining to §195.589(c), KM must develop procedures in accordance with §195.583 to be included in KM's procedural manual for operation and maintenance. Then, KM must implement the procedures at the Perth Amboy facility. Accordingly, KM must perform atmospheric corrosion inspections on all jurisdictional above ground pipelines at Perth Amboy and perform any necessary remedial actions on identified deficiencies as delineated in the aforementioned procedures within 120 days of receipt of the Final Order.
6. Regarding Item Number 6 of the Notice pertaining to §195.404 (c)(3), KM must develop procedures in accordance with §195.430 and then implement the procedures at the Perth Amboy facility. KM must have completed records, including but not limited to, verifying that all the firefighting equipment located at the Perth Amboy facility is in proper operating condition with 180 days of receipt of the Final Order.
7. Regarding Item Number 7 of the Notice pertaining to §195.404 (a)(3), KM must submit adequate related historical records of the established maximum operating pressure (MOP) of all its jurisdictional pipeline system in or affiliated with the Perth Amboy within the timeframe prescribed in Item 13 of this Compliance Order. If, KM is unable to produce those records, KM must complete a pressure test pursuant to 49 CFR, Part 195, Subpart E to establish the MOP of its pipeline facility, or reduce the presumed maximum operating pressure to 80 percent of the operating pressure to which each pipeline segment was subjected for 4 or more continuous hours that can be demonstrated by the methods prescribed in §195.406(a)(5) within 150 days of receipt of the Final Order.

8. Regarding Item Number 8 of the Notice pertaining to §195.505(a), KM must adequately identify and list in its written Operator Qualification Program tank painting as a covered task. KM must also include a safety process, where applicable, in its Operation and Maintenance (O&M) manual for painting on jurisdictional assets at the Perth Amboy facility. KM must have related changes and additions to its written Operator Qualification Program and O&M manual within 120 days of receipt of the Final Order.
9. Regarding Item Number 9 of the Notice pertaining to §195.404 (c)(3), KM must inspect and test each overfill protection system at the Perth Amboy facility in accordance with 195.428(d) and KM's procedural manual for operations and maintenance for the inspection and testing of overfill protection systems within 120 days of receipt of the Final Order.
10. Regarding Item Number 10 of the Notice pertaining to §195.404 (a)(1)(i), KM must update facility diagram to illustrate all DOT jurisdictional breakout tanks and interconnecting jurisdiction piping within 120 days of receipt of the Final Order.
11. Regarding Item Number 11 of the Notice pertaining to §195.404 (c)(3), KM must inspect and test each thermal relief valve on each breakout tank at the Perth Amboy facility in accordance with §195.428(a) and KM's procedural manual for operations and maintenance for the inspection and testing of thermal relief valves within 120 days of receipt of the Final Order.
12. Regarding Item Number 12 of the Notice pertaining to §195.404(c)(3), KM must commence monthly routine in-service inspection on each atmospheric and low-pressure steel aboveground breakout tanks in accordance with API 653 and KM's procedural manual for operations and maintenance for the inspection and testing of atmospheric and low-pressure steel aboveground breakout tanks within 60 days of receipt of Final Order.
13. KM may submit available historical record(s) regarding any of the above-mentioned items to Director within 30 days of receipt of the Final Order. Once any of those record(s) are in compliance with Pipeline Safety Regulations, Title 49 Code of Federal Regulation and deemed adequate by the Director, the item will be deemed satisfied without the need to perform any additional work. If KM fails to provide any historical records within 30 days of receipt of the Final Order or the record(s) are deemed inadequate, KM must comply with the requirements set forth in the individual items of the Compliance Order.
14. Regarding Items 1-12, KM must make any and all records, including procedures, available for review by the Director, or designate upon request.
15. All records and procedures submittals must be compiled in a final summary report demonstrating the work performed for all the above-mentioned items. The final summary report must be submitted to the Director within 30 days of the completion of the last action performed by KM that is set forth in this Compliance Order.
16. It is requested (not mandated) that KM maintains documentation of the safety improvement costs associated with fulfilling this Compliance Order and submits the total to Director. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.

APPENDIX B



Kinder Morgan Liquids Terminals, LLC

PERTH AMBOY PROJECT

Substantiation of Terminal Piping Maximum
Operating Pressure (MOP)

Perth Amboy Terminal, Perth Amboy, NJ

1.0 APPLICABILITY

Refined Products/Natural Gasoline.

2.0 PURPOSE AND SCOPE

This document provides Kinder Morgan Liquids Terminals, LLC (KMLT) North East Region procedures for establishing and documenting MOP for each DOT jurisdictional segment of pipe at its terminal facility located in Perth Amboy, New Jersey (the Perth Amboy Project or Project), as required pursuant to the Consent Agreement and Order between PHMSA and KMLT regarding CPF No. 1-2011-5008, dated

The Project includes 22 piping segments, and will involve pressure testing each jurisdictional segment in order to substantiate MOP in accordance with the pipeline safety regulations, found at 49 C.F.R. Part 195. The Perth Amboy Terminal operates under an established MOP of 285 psi, based on maximum pressure rating of installed flanges. The following procedures and schedule is designed to substantiate the established MOP in accordance with 49 CFR Part 195. This procedure follows existing KMLT O&M Procedure T-O&M 1600 (Strength and Leak Testing) (attached), as applicable.

3.0 TESTING PROCEDURES

KMLT will implement the following methods for executing the Project:

3.1 Identify line segments and internal design pressure

3.1.1 Using Piping and Instrumentation Diagrams (P&IDs), break down piping systems or segment details, number of flanges, appurtenances, measurements, etc.

3.1.2 Identify line segments for manageable testing.

3.1.3 Research and document to ensure that all pipe components of the line segment are capable of the target test pressures. (Refer to test pressures in 3.3.1)

3.2 Testing Preparation

- 3.2.1 Develop an air elimination procedure to mitigate risk of air being injected into tanks and potentially causing floating roof damage and/or sinking of roofs.
- 3.2.2 Assemble and issue specifications for piping, valves, blinds, fitting, flanges, gaskets, studs and nuts, etc.
- 3.2.3 Secure and/or have on stand-by replacements for piping, valves, fittings, gauges, gaskets, etc.
- 3.2.3 Evacuate line segments to appropriate storage tank.
- 3.2.4 Drain line segments of any residual products to vacuum trucks and into storage tanks.
- 3.2.5 Remove and plug all appurtenances on line segments, except for 1-2 low point drains.
- 3.2.6 Install slip blinds for segments to be tested. Employ Lock-Out Tag-Out.
- 3.2.7 Review contractor pressure test equipment calibration and verify equipment records.
- 3.3 Conduct pressure tests²
 - 3.3.1 Conduct pressure tests at 1.25 x 285 psi or 357 psi for four hours for above- ground pipe and an additional four hours at 1.10 x 285 psi or 314 psi for underground pipe. Pressure test must be conducted in accordance with §195.304.
 - 3.3.2 Use water as a test medium for each line segment.
 - 3.3.3 Commence pressure test by slowly ramping up pressure in increments until the test pressure is met. Four hours at 357 psi and an additional four hours at 314 psi, depending on line segment. (Refer to calculations in 3.3.1)
 - 3.3.4 Record pressure, ambient temperature and pipe temperature and monitor pressure changes.
 - 3.3.5 Inspect line segment for leakage for the duration of the test.

² For a map showing the jurisdictional components of Respondent's system, see drawings entitled, "Kinder Morgan Perth Amboy, NJ, Liquids Terminal, Tank Field P&ID's," prepared by STV Incorporated, consisting of 41 sheets, dated May 6, 2013 (on file with PHMSA Eastern Region).

3.3.6. If a leak and/or failure occur, then that line segment must be retested.

3.3.7 Evaluate chart recorder and check that the test meets 49 C.F.R. Part 195 requirements.

3.4 Completion

3.4.1 Upon completion, begin system drain of test medium to vacuum trucks.

3.4.2 Place test medium in Baker style tanks for reuse in other pipe segments.

3.4.3 Dewater with nitrogen to remove as much water as possible from low point drains.

3.4.4 Re-install appurtenances on pipe segments, utilizing new Flexitallic gaskets and new nuts and bolts.

3.4.5 Remove Lock-Out Tag-Out controls and isolation blinds and return segment back to service.

4.0 **TESTING SAFETY**

4.1 Testing procedures should be in place to protect all employees, contractors, and members of the public, including “essential personnel” who are or might be in proximity to the facilities undergoing testing.

4.2 Maintaining a safe distance for everyone, or providing adequate barriers or other protections, if necessary to have personnel in the vicinity of the facilities being tested.

4.3 Everyone on site during the test must be informed of the procedures and a pre- start up safety review must be conducted.

4.4 The testing team should also be asked to survey the site to identify and remove, as appropriate, any loose material that might present a hazard in the event of failure.

4.5 Do not use swell plugs or plumber’s plugs / night caps for performing pressure tests.

5.0 **PROJECT SCHEDULE**

KMLT has developed a schedule to complete all jurisdictional segment testing on the Perth Amboy Terminal by November 1, 2014. This schedule will best accommodate KMLT's efforts to conduct the work safely and with minimal fuel supply disruption to local markets. The following table reflects KMLT's projected schedule for segment testing, which will resume in the spring of 2013. Designation and sequencing of specific segments for testing during a given season will be at KMLT's discretion and guided by risk assessment principles. As outlined further below, KMLT will provide periodic progress reports to PHMSA so that the agency may track implementation of the Perth Amboy Project. In the first progress report, KMLT will also include documentation of the segments tested in 2012 for PHMSA's review.

Proposed Perth Amboy Project Execution Plan

Total Segments	2012 Segments	2013 Segments	2014 Segments
22	Total: 3	Total: 8	Total: 11

6.0 TRAINING

Personnel performing the Project must meet the requirements of the KM Operator Qualification program.

7.0 DOCUMENTATION

Specific records identified in this section are to be retained in accordance with T-O&M Procedure 1404, Maps and Records and 49 C.F.R. Part 195.310.

7.1 Test Reporting

Prepare a test report for every pressure test using T-OM1600-01, Pressure Test Report. This report will be a permanent record and may be used to satisfy regulatory agencies. Retain the test report for as long as the facility is in use.

Be sure that the data is complete, self-explanatory, and in accordance with 49 C.F.R. 195.310. Attach the following to the test report:

- 7.1.1 Pressure recording chart signed by the person responsible for making the test.
- 7.1.2 Temperature recording chart signed by the person responsible for making the test.
- 7.1.3 Dead weight gauges and pressure recorder calibration certification.
- 7.1.4 Where elevation difference in the section under test exceeds 100 feet, a profile of the pipeline that shows the elevation and test sites over the entire length of the test section.
- 7.1.5 Complete all sections of T-OM1600-01, Pressure Test Report. If a part of the form is not applicable, insert N/A (not applicable) so every section is completed. A company representative must sign all reports.

7.1.6 The "Pressure Test Report" shall contain the following information:

- Kinder Morgan's Business Unit's name.
- The name of the person responsible for making the test (Test Supervisor).
- The name of the test company used, if any (Test Contractor).
- The date and time of the test.
- The minimum test pressure.
- The test medium.
- A description of the facility tested and the test apparatus.
- A description of any pressure discontinuities, including test failures and temperature deviations that appear on the pressure recording charts.

7.2 **Additional Testing Reports**

In addition to the strength test report, complete the following if applicable when testing pipeline facilities:

- 7.2.1 T-OM200-02, Pipeline Inspection/Repair Report distribute as stated on form.
- 7.2.2 Retain Survey Notes: Include all pressure test report numbers in the survey notes. Forward completed notes to the project management group.

7.3 **PHMSA Reporting**

PHMSA has requested that KMLT provide progress reports and other opportunities for information-sharing during implementation of the Project.

- 7.3.1 Commencing no more than 90 days after the Effective Date of the Agreement and continuing every 90 days thereafter, until the Perth Amboy Project Completion Report, as described below, has been filed and accepted by PHMSA, KMLT will submit quarterly progress reports to PHMSA, describing all work performed during the preceding quarter and the safety impacts and implications of the Perth Amboy Project to date. The quarterly reports will include a segment completion inventory spreadsheet, attached as Attachment A.
- 7.3.2 Within 90 days after completion of the Perth Amboy Project. KMLT will file a Perth Amboy Project Completion Report with the Director. Said report will contain, at minimum, the following information:
 - A detailed description of the work performed, as implemented;
 - The total itemized costs of the work performed; and
 - Certification that the works has been implemented pursuant to the provisions of the Project plan.
 - Verification that all jurisdictional assets have been pressure tested.
- 7.3.3 All reports, including the Perth Amboy Project Completion Report, shall be submitted to the Director. As the person responsible for monitoring Respondent's compliance with the

terms of this Agreement, the Director may request any additional documentation, studies, or reports reasonably necessary to verify compliance with the terms of the Project plan.

ATTACHMENT A

QUARTERLY PROGRESS REPORT

[DATE]

Kinder Morgan Liquids Terminals, LLC

Terminal Maximum Operating Pressure (MOP) Substantiation Project

PERTH AMBOY TERMINAL, PERTH AMBOY, NJ

Segment Name	P&ID Numbers	Test Date	Pass / Fail	Test Pressure (psi)	Test Medium

ATTACHMENT B

T-O&M 1600 (STRENGTH AND LEAK TESTING)]

TERMINALS O&M PROCEDURE

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1. Applicability

- Liquid (PHMSA Regulated) Terminals
- Liquid (Non-PHMSA Regulated) Terminals
- Bulk Terminals

2. Scope

Pipelines, and each pipeline segment that has been relocated, replaced, or otherwise changed, must be pressure tested without leakage. This procedure contains information about strength and leak testing with air, product, water or inert gas. Testing is required whenever pipe, fabricated units or new breakout tanks built to API standards are installed.

Before performing the test, obtain written approval for any deviation from this procedure from an authorized representative of engineering.

SQE Statement

This procedure follows Best Management Practices (BMPs), and is one of the steps necessary in establishing and implementing Kinder Morgan Terminal's Safety, Quality, and Environmental (SQE) programs and culture.

SQE program elements were developed through aggregating best management practices and lessons learned across our organization. The elements of SQE are intended to help develop a culture where all Teammates perform their daily tasks in a manner that upholds our Core Principles, while running safe, environmentally compliant, quality focused, efficient operations. Kinder Morgan's Core Principles are as follows:

Do The Right Thing Every Day

- 1) Safety Will Not Be Compromised
- 2) Environmentally Compliant and Responsible Operator
- 3) Ethics and Integrity
- 4) Commitment to Employees and Resources
- 5) Customer Service and Fiscal Responsibility
- 6) Quality Focus

TERMINALS O&M PROCEDURE

- 1) Safety Will Not Be Compromised
- 2) Environmentally Compliant and Responsible Operator
- 3) Ethics and Integrity
- 4) Commitment to Employees and Resources
- 5) Customer Service and Fiscal Responsibility
- 6) Quality Focus

3. Core Information and Requirements**3.1. Exceptions to Pressure Testing**

Except for pipelines converted under 49 CFR 195.5 (refer to **T-O&M Procedure 271, Conversion to Service**), the following pipelines may be operated without pressure testing under this procedure:

- 3.1.1. Any hazardous liquid pipeline whose maximum operating pressure is established under 49 CFR 195.406(a)(5) that is-
 - An interstate pipeline constructed before January 8, 1971;
 - An interstate offshore gathering line constructed before August 1, 1977;
 - An intrastate pipeline constructed before October 21, 1985; or
 - A low-stress pipeline constructed before August 11, 1994, that transports HVL.
- 3.1.2. Any carbon dioxide pipeline constructed before July 12, 1991, that-
 - Has its maximum operating pressure established under 49 CFR 195.406(a)(5); or
 - Is located in a rural area as part of a production field distribution system.
- 3.1.3. Any low-stress pipeline constructed before August 11, 1994, that does not transport HVL.
- 3.1.4. Those portions of older hazardous liquid and carbon dioxide pipelines for which KM has elected the risk-based alternative under 49 CFR 195.303 and which are not required to be tested based on the risk-based criteria.

3.2. Pressure Testing Deadlines

Except for pipelines that transport HVL onshore, low-stress pipelines, and pipelines covered under 49 CFR 195.303, the following compliance deadlines apply to pipelines under **Sections 3.1.1** (1st three bullets) and **3.1.2** (1st bullet) of this section that have not been pressure tested under this subpart:

- 3.2.1. Before December 7, 1998, for each pipeline KM shall -
 - 3.2.1.1. Plan and schedule testing according to this paragraph; or
 - 3.2.1.2. Establish the pipelines maximum operating pressure under 49 CFR 195.406(a)(5).
- 3.2.2. For pipelines scheduled for testing, KM shall -
 - 3.2.2.1. Before December 7, 2000, pressure test-
 - 3.2.2.1.1. Each pipeline identified by name, symbol, or otherwise that existing records show contains more than 50 percent

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TERMINALS O&M PROCEDURE

by mileage of electric resistance welded pipe manufactured before 1970; and

3.2.2.1.2. At least 50 percent of the mileage of all other pipelines; and

3.2.2.2. Before December 7, 2003, pressure test the remainder of the pipeline mileage.

3.3. Pressure Testing of Components

3.3.1. Each pressure test under 49 CFR 195.302 must test all pipe and attached fittings, including components, unless otherwise permitted by Section 3.3.2.

3.3.2. A component, other than pipe, that is the only item being replaced or added to the pipeline system need not be hydrostatically tested under Section 3.3.1 if the manufacturer certifies that either-

3.3.2.1. The component was hydrostatically tested at the factory; or

3.3.2.2. The component was manufactured under a quality control system that ensures each component is at least equal in strength to a prototype that was hydrostatically tested at the factory

4. Testing of Pipelines - Excluding DOT Breakout Tanks.**4.1. State or Local Regulatory requirements for Pressure Testing**

4.1.1. KMEP Business Units must comply with specific state rules and regulations in addition to federal Integrity Management Program (IMP) standards. A pressure test that meets or exceeds the requirements of 49 CFR 195, Subpart E generally will comply with Federal IMP standards. If State or local requirements are less stringent, the Federal IMP standards will apply to both intrastate and interstate pipelines.

4.1.2. States typically inspect and enforce regulations for intrastate pipeline segments. Every attempt should be made to select assessment methods that will simultaneously satisfy both State and Federal requirements.

4.1.3. States known to have specific integrity assessment requirements include California, Florida, Louisiana, and Texas. Other states with detailed requirements may also exist. It is the responsibility of Manager, Pipeline Integrity and the Business Unit Integrity Management Teams to be familiar with Federal, State, and local requirements related to integrity assessment testing and to select assessment method(s) that satisfy all governing requirements.

4.2. Testing Safety**Do The Right Thing Every Day**

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4) Commitment to Employees and Resources 5) Customer Service and Fiscal Responsibility 6) Quality Focus

TERMINALS O&M PROCEDURE

Testing procedures should be in place that protects all employees, contractors, and members of the public, including "essential personnel" who might need to be in proximity to the facilities being tested. This can be accomplished by maintaining a safe distance for everyone, or providing adequate barriers or other protections if it is necessary to have personnel in the vicinity of the facilities being tested. Everyone on site during the test must be informed of the procedures and a pre-start up safety review must be conducted. The testing team should also be asked to survey the site to identify and remove, as appropriate, any loose material that might present a hazard in the event of failure.

Do not use swell plugs or plumber's plugs / night caps for performing pressure tests.

4.2.1. Testing Media

Water will be the required test medium. Any exception to this will require approval from the appropriate vice president of engineering. The vice president will insure that there is no alternative, a site specific procedure is created and reviewed, and that no person is in harm's way when piping is greater than 50% SMYS. This internal approval is required even with the following regulatory allowed exception:

4.2.1.1. Except for offshore pipelines, liquid petroleum that does not vaporize rapidly may be used as the test medium if-

- (a) The entire pipeline under test is outside of cities and other populated areas;
- (b) Each building within 300 feet (91 meters) of the test section is unoccupied while the test pressure is equal to or greater than a pressure which produces a hoop stress of 50 percent of specified minimum yield strength;
- (c) The test section is kept under surveillance by regular patrols during the test; and,
- (d) Continuous communication is maintained along entire test section.

4.2.1.2. Carbon dioxide pipelines may use inert gas or carbon dioxide as the test medium if-

- (a) The entire pipeline section under test is outside of cities and other populated areas;
- (b) Each building within 300 feet (91 meters) of the test section is unoccupied while the test pressure is equal to or greater than a pressure that produces a hoop stress of 50 percent of specified minimum yield strength;
- (c) The maximum hoop stress during the test does not exceed 80 percent of specified minimum yield strength;
- (d) Continuous communication is maintained along entire test section; and,
- (e) The pipe involved is new pipe having a longitudinal joint factor of 1.00.

4.2.1.3. Air or inert gas may be used as the test medium in low-stress pipelines.

4.2.2. Investigation and Repairs – External Leakage**Do The Right Thing Every Day**

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If there is an external leakage failure of the pipe not associated with a flange gasket or other type of non welded fitting, the Project Manager shall identify any and all specimens to be collected for further metallurgical investigation. In order to facilitate an adequate analysis of any leaks or failures, the Project Manager will contact the Corporate IMP group or Company Metallurgist to set up a metallurgical protocol, pick a lab to perform analysis, and determine sample handling requirements.

Use the information gathered at the failure site and from the metallurgical examination to determine if additional sites should be excavated and inspected. Schedule additional inspections and repairs as appropriate.

After removal of failure point, Project Manager will initiate repairs to pipeline necessary due to external leakage following governing Business Unit procedures. Repeat the pressure test to achieve successful results upon completion of pipeline repairs.

Refer to **T-O&M Procedure 213, Leaks, Pipe and Weld Defects (Evaluation and Repair)** for pipeline facilities repair.

4.2.3. Before the Test

- Assemble a job-specific testing procedure
- Verify that test pressure is above 50% of the chart recorder range and deadweight calibrated range.
- Obtain a copy of the contractor's deadweight and chart recorder calibration certification before conducting the test.
- Inform local agencies as required by regulations.

4.2.4. Conducting the Post-Installation Test

- Maintain communications at all mainline valves and major road crossings during the test.
- The test pressure for each pressure test conducted must be maintained throughout the part of the system being tested for at least 4 continuous hours at a pressure equal to 125 percent, or more, of the maximum operating pressure (MOP) and, in the case of a pipeline that is not visually inspected for leakage during the test, for at least an additional 4 continuous hours at a pressure equal to 110 percent, or more, of the maximum operating pressure.
- Adjust test pressures for elevation by considering grade profiles and deadweight elevation. Do not allow the pressure at the lowest elevation to exceed the maximum allowable test pressure or allow the pressure at the highest elevation to drop below the minimum allowable test pressure. Eliminate air from the test section. Allow an adequate period of time for temperature stabilization.
- For below ground piping utilize a pair of temperature probes having matching calibration and placed as follows. One probe is to be buried in soil at pipe depth at least 10 feet from the pipe in a location representative of general ground temperature and the other probe is to be placed in contact with the buried pipe near the same location. For above ground piping utilize a single temperature probe and place it such that it is protected from the environment.
- Open all valves in a test section fully. Do not test through equipment or against a closed valve without prior approval from engineering.

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TERMINALS O&M PROCEDURE

- When the test section is at a pressure of 85% SMYS, hold the test pressure static for a minimum of thirty minutes.
- When the test pressure (adjusted for elevation) is reached, shut in the test section.
- Maintain the pressure between the maximum and minimum allowable test pressures. Record deadweight pressures every thirty minutes and before and after each re-pressuring or bleed-down period. Record the volume of water added to or bled from the test section.
- Temperature recordings shall be started prior to the start of the field operation when hydrostatic testing. Identification information and signatures shall be the same as for pressure charts. Temperature readings of the pipe and the test medium may be logged manually at intervals sufficient to record temperature changes, but not to exceed one (1) hour, using **T-OM1600-01, Pressure Test Report**.
- Once the test is completed, dewater the pipeline.

4.2.5. Hydrostatic Test for Mitigating Stress Corrosion Cracking (SCC)

The spike test is an assessment method for SCC conducted during the initial hour of an eight-hour hydrostatic test. The highest possible spike test pressure is desired (up to 110% SMYS), provided the pipe is not permanently bulged. In a high consequence area (HCA), a one-hour spike test by itself cannot be used as an assessment method for SCC unless the Office of Pipeline Safety (OPS) is notified 180 days in advance (see the **Pipeline Integrity Management Program**).

When conducting a hydrostatic test for mitigating SCC as prescribed in **T-O&M Procedure 917, Stress Corrosion Cracking**, the following special eight-hour test requirements apply:

- For the first hour, keep the minimum test pressure at least 100% SMYS of the lowest strength pipe and the maximum test pressure at less than or equal to 110% SMYS of the lowest strength pipe (adjusted for elevation)
- Do not re-pressure during the one-hour spike test. Pressure can be bled off during this hour so the maximum pressure is not exceeded.
- Maintain the minimum test pressure at a minimum of 90% SMYS of the lowest strength pipe and the maximum test pressure at less than or equal to 100% SMYS of the lowest strength pipe for seven hours. See further details in this procedure.

4.2.6. Hydrostatic Water Permitting, Handling/Disposing and Sampling

When conducting a hydrostatic test, consider:

- The suitability of fill water
- Compliance with all fill and discharge permit requirements
- Handling and disposing of any pre-pig fluids.

Contact the Environmental, Health and Safety Department (EHS) well in advance of any hydrotesting. EHS will help secure the necessary uptake and discharge permits and determine if any water testing and erosion control is required. Requirements vary by state.

The project manager is responsible for submitting the hydrostatic discharge water lab analyses to the appropriate state agency. EHS may be available to assist.

4.2.7. Pre-Installation Test**Do The Right Thing Every Day**

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TERMINALS O&M PROCEDURE

For pipe that is completely visible (fabricated units, pipe associated with tie-in, short pipe sections), a four-hour pressure test held at a minimum of 125 percent of MOP will be sufficient.

4.2.8. Testing Stock Pipe (Emergency Pipe)

Test stock pipe per the preceding procedure for a minimum of four hours. Send test records and pipe mill test reports to engineering and the storage site location. If tested pipe is transferred to another location, send a copy of the test and mill report with the pipe.

5. Testing of New DOT Breakout Tanks Built to API Specifications.

Testing of new DOT Breakout Tanks that were built to API standards will be tested in accordance with the applicable API Standard as follows:

- For aboveground breakout tanks built to API Specification 12F and first placed in service after October 2, 2000, pneumatic testing must be in accordance with section 5.3 of API Specification 12F.
- For aboveground breakout tanks built to API Standard 620 and first placed in service after October 2, 2000, hydrostatic and pneumatic testing must be in accordance with section 5.18 of API Standard 620.
- For aboveground breakout tanks built to API Standard 650 and first placed in service after October 2, 2000, hydrostatic and pneumatic testing must be in accordance with section 5.3 of API Standard 650.
- For aboveground atmospheric pressure breakout tanks constructed of carbon and low alloy steel, welded or riveted, and non-refrigerated and tanks built to API Standard 650 or its predecessor Standard 12C that are returned to service after October 2, 2000, the necessity for the hydrostatic testing of repair, alteration, and reconstruction is covered in section 10.3 of API Standard 653.
- For aboveground breakout tanks built to API Standard 2510 and first placed in service after October 2, 2000, pressure testing must be in accordance with ASME Boiler and Pressure Vessel Code, Section VIII, Division 1 or 2.

6. Training

Personnel performing strength and leak testing must meet the requirements of the KM Operator Qualification program.

7. Documentation

Specific records identified in this section are to be retained in accordance with T-O&M Procedure 1404, Maps and Records.

7.1. Test Reporting

Prepare a test report for every pressure test using T-OM1600-01, Pressure Test Report. This report will be a permanent record and may be used to satisfy regulatory agencies.

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TERMINALS O&M PROCEDURE

Retain the test report as long as the facility is in use. Be sure that the data is complete and self-explanatory. Attach the following to the test report:

- Pressure recording chart signed by the person responsible for making the test
- Temperature recording chart signed by the person responsible for making the test
- Dead weight gauges and pressure recorder calibration certification
- Where elevation difference in the section under test exceed 100 feet, a profile of the pipeline that shows the elevation and test sites over the entire length of the test section
- Complete all sections of **T-OM1600-01, Pressure Test Report**. If a part of the form is not applicable, insert N/A (not applicable) so every section is completed. A company representative must sign all reports.
- The "Pressure Test Report" shall contain the following information.
 - Kinder Morgan's Business Unit's name.
 - The name of the person responsible for making the test (Test Supervisor).
 - The name of the test company used, if any (Test Contractor).
 - The date and time of the test.
 - The minimum test pressure
 - The test medium
 - A description of the facility tested and the test apparatus.
 - A description of any pressure discontinuities, including test failures and temperature deviations, that appear on the pressure recording charts

7.2. Additional Testing Reports

In addition to the strength test report, complete the following if applicable when testing pipeline facilities:

- **T-OM200-02, Pipeline Inspection/Repair Report** - distribute as stated on form.
- Rechain Survey Notes: Include all pressure test report numbers in the survey notes. Forward completed notes to the project management group.

7.3. Data for IMP Program

Upon completion of a hydro test, test date, test pressure, test fluid, chart recorder station number and MOP of test shall be forwarded to the Manager, Risk Engineering for CAP update. Incorporate assessment data and repair events in the KMEP integrity management risk model.

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4) Commitment to Employees and Resources 5) Customer Service and Fiscal Responsibility 6) Quality Focus

8. References

- 49 CFR Part 195.303, .304, .305, .306, .307, .308, .310
- API 2510, Design and Construction of LPG Installations, ASME Boiler & Pressure Vessel Code, Section VIII, Division 1, Rules for Construction of Pressure Vessels
- ASME Boiler & Pressure Vessel Code, Section VIII, Division 2, Alternate Rules, Rules for Construction of Pressure Vessels
- **T-O&M Procedure 208, Operating Pressure Uprating**
- **T-O&M Procedure 213, Leaks, Pipe and Weld Defects (Evaluation and Repair)**
- **T-O&M Procedure 271, Conversion to Service**
- **T-O&M Procedure 403, Pipe Wall Thickness Survey**
- **T-O&M Procedure 917, Stress Corrosion Cracking**
- **T-O&M Procedures 1404, Maps and Records**
- **T-OM200-02, Pipeline Inspection/Repair Report**
- **T-OM1600-01, Pressure Test Report**
- **Pipeline Integrity Management Program**

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