

## **NOTICE OF AMENDMENT**

### **CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

March 19, 2012

Mr. Mark Maki  
Sr. Vice President  
Vector Pipeline, L.P.  
1100 Louisiana  
Suite 3300  
Houston, TX 77002

**CPF 3-2012-1002M**

Dear Mr. Maki:

On August 15-18, October 24-27, 2011 and January 16-18, 2012, representatives of the Michigan Public Service Commission (MI-PSC) acting as an interstate agent for the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected your facilities and the operation and maintenance procedures for Vector Pipeline L.P. (Vector) at your offices in Griffith, IN.

On the basis of the inspection, the MI-PSC and PHMSA has identified the apparent inadequacies found within the Vector plans or procedures, as described below:

**1. §192.13 What general requirements apply to pipelines regulated under this part?**

**(c) Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part.**

§192.235 Preparation for welding.

Before beginning any welding, the welding surfaces must be clean and free of any material that may be detrimental to the weld, and the pipe or component must be aligned to provide the most favorable condition for depositing the root bead. This alignment must be preserved while the root bead is being deposited.

Vector's procedures were inadequate because it did not address properly aligning the pipe within API 1104's specifications for "high-low" and API 5L's pipe end diameter out of roundness specifications. Please reference PHMSA Advisory Bulletin ADB-10-03, "Pipeline Safety: Girth Weld Quality Issues Due to Improper Transitioning, Misalignment, and Welding Practices of Large Diameter Line Pipe".

**2. §192.13 (See Item 1 above)**

§192.505 Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS.

(a) Except for service lines, each segment of a steel pipeline that is to operate at a hoop stress of 30 percent or more of SMYS must be strength tested in accordance with this section to substantiate the proposed maximum allowable operating pressure. In addition, in a Class 1 or Class 2 location, if there is a building intended for human occupancy within 300 feet (91 meters) of a pipeline, a hydrostatic test must be conducted to a test pressure of at least 125 percent of maximum operating pressure on that segment of the pipeline within 300 feet (91 meters) of such a building, but in no event may the test section be less than 600 feet (183 meters) unless the length of the newly installed or relocated pipe is less than 600 feet (183 meters). However, if the buildings are evacuated while the hoop stress exceeds 50 percent of SMYS, air or inert gas may be used as the test medium.

Vector's procedures were inadequate because they did not require that pipelines which operate above a hoop stress of 30% SMYS must be strength tested. Vector's current procedure indicates that pressure testing requirements are for piping that has an MAOP of greater than 50% SMYS.

**3. §192.13 (See Item 1 above)**

§192.517 Records.

(a) Each operator shall make, and retain for the useful life of the pipeline, a record of each test performed under §§ 192.505 and 192.507. The record must contain at least the following information:

- (1) The operator's name, the name of the operator's employee responsible for making the test, and the name of any test company used.
- (2) Test medium used.
- (3) Test pressure.
- (4) Test duration.

- (5) Pressure recording charts, or other record of pressure readings.
- (6) Elevation variations, whenever significant for the particular test.
- (7) Leaks and failures noted and their disposition.

Vector's procedures were inadequate because it did not specify or cross-reference what records must be kept for pressure tests.

**4. §192.605 Procedural manual for operations, maintenance, and emergencies**

**(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least one each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.**

§191.17(a) Transmission systems, gathering systems, and liquefied natural gas facilities. Annual report.

(a) Transmission or Gathering. Each operator of a transmission or a gathering pipeline system must submit an annual report for that system on DOT Form PHMSA 7100.2.1. This report must be submitted each year, not later than March 15, for the preceding calendar year, except that for the 2010 reporting year the report must be submitted by June 15, 2011.

Vector's O&M Manual was not adequate because it did not address when the annual reports are to be submitted and to whom.

**5. §192.605 (a) (See Item 4 above)**

Vector's O&M Manual was not adequate because it did not indicate that the O&M manual would be reviewed and updated once per year not to exceed 15 months. During the review, Vector personnel showed that in the QMS, it is required that the O&M Manual be reviewed and updated once per year, not to exceed 15 months. However, there was no reference to the QMS in the O&M manual.

**6. §192.605(a) (See Item 4 above)**

§192.605(b)(11) - Procedural manual for operations, maintenance, and emergencies

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

(11) Responding promptly to a report of a gas odor inside or near a building, unless the operator's emergency procedures under §192.615(a)(3) specifically apply to these reports.

Vector's O&M Manual was not adequate because there were no appropriate standards and procedures for addressing prompt response to a report of gas odor or any other potential leak call inside or near a building. Additionally, the O&M manual should address the possibility of receiving calls from the public regarding the crude oil liquid lines that run parallel to Vector.

**7. §192.605(a) (See Item 4 above)**

§192.605(c) - Abnormal operation. For transmission lines, the manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:

(2) Checking variations from normal operation after abnormal operation has ended at sufficient critical locations in the system to determine continued integrity and safe operation.

Vector's O&M Manual was not adequate because it lacked the procedures to check for variations from normal operation after an abnormal operation has ended.

**8. §192.605(a) (See Item 4 above)**

§192.605(c) - Abnormal operation. For transmission lines, the manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:

(3) Notifying responsible operator personnel when notice of an abnormal operation is received.

Vector's O&M was not adequate because there was no guidance on how operating personnel are notified for any abnormal operation.

**9. §192.605 (a) (See Item 4 above)**

§192.609 Change in class location: Required study.

Whenever an increase in population density indicates a change in class location for a segment of an existing steel pipeline operating at a hoop stress that is more than 40 percent of SMYS, or indicates that the hoop stress corresponding to the established maximum allowable operating pressure for a segment of existing pipeline is not commensurate with the present class location, the operator shall immediately make a study to determine;

- (a) The present class location for the segment involved.
- (b) The design, construction, and testing procedures followed in the original construction, and a comparison of these procedures with those required for the present class location by the applicable provisions of this part.
- (c) The physical condition of the segment to the extent it can be ascertained from available records;
- (d) The operating and maintenance history of the segment;
- (e) The maximum actual operating pressure and the corresponding operating hoop stress, taking pressure gradient into account, for the segment of pipeline involved; and,
- (f) The actual area affected by the population density increase, and physical barriers or other factors which may limit further expansion of the more densely populated area.

Vector's O&M Manual is not adequate because it does not reflect what Vector actually does in the field to meet this requirement. The procedures shown to the MI-PSC was Book 3, Standard 03-02-04, entitled "Class Location Surveys", and appeared to be specific to the liquid process even though it indicated natural gas. Additionally, Part 195 does not have class locations. The procedure must indicate how changes found in the field are conveyed to operations management, or personnel performing the study.

**10. §195.605(a) (See Item 4 above)**

§192.613 Continuing Surveillance.

- (a) If a segment of pipeline is determined to be in unsatisfactory condition but no immediate hazard exists, the operator shall initiate a program to recondition or phase out the segment involved, or, if the segment cannot be reconditioned or phased out, reduce the maximum allowable operating pressure in accordance with §192.619 (a) and (b).

Vector's procedure for continuing surveillance was not adequate because the procedures did not provide guidance on how pipeline segments that are identified to be in unsatisfactory condition should be addressed.

**11. §195.605(a) (See Item 4 above)**

§192.619 Maximum allowable operating pressure - Steel or plastic pipelines

- (a) No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure determined under paragraph (c) or (d) of this section, or the lowest of the following: *etc...*
- (b) No person may operate a segment to which paragraph (a)(4) of this section is applicable, unless overpressure protective devices are installed on the segment in a manner that will prevent the maximum allowable operating pressure from being exceeded, in accordance with §192.195.
- (c) The requirements on pressure restrictions in this section do not apply in the following instance. An operator may operate a segment of pipeline found to be in

satisfactory condition, considering its operating and maintenance history, at the highest actual operating pressure to which the segment was subjected during the 5 years preceding the applicable date in the second column of the table in paragraph (a)(3) of this section. An operator must still comply with §192.611.

Vector O&M Manual was inadequate because it did not contain any guidance for MAOP establishment.

**12. §192.605(a) (See Item 4 above)**

§192.629 Purging of pipelines.

(a) When a pipeline is being purged of air by use of gas, the gas must be released into one end of the line in a moderately rapid and continuous flow. If gas cannot be supplied in sufficient quantity to prevent the formation of a hazardous mixture of gas and air, a slug of inert gas must be released into the line before the gas.

(b) When a pipeline is being purged of gas by use of air, the air must be released into one end of the line in a moderately rapid and continuous flow. If air cannot be supplied in sufficient quantity to prevent the formation of a hazardous mixture of gas and air, a slug of inert gas must be released into the line before the air.

Vector's O&M was inadequate because it did not have language in the O&M Manual that specifically stated how to determine the gas and/or air quantity necessary to prevent the formation of a hazardous mixture.

**13. §192.605(b) Procedural manual for operations, maintenance, and emergencies**

**(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.**

**(1) Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and Subpart M of this part.**

§192.707 Line markers for mains and transmission lines

(d) Marker warning. The following must be written legibly on a background of sharply contrasting color on each line marker:

(1) The word "Warning," "Caution," or "Danger" followed by the words "Gas (or name of gas transported) Pipeline" all of which, except for markers in heavily developed urban areas, must be in letters at least 1 inch (25 millimeters) high with ¼ inch (6.4 millimeters) stroke.

Vector's O&M manual was inadequate because there was no language in the O&M Manual that addressed all (letter height and/or stroke) of the pipeline marker design requirements.

**14. §192.605(b)(1) (See Item 13 above)**

§192.463 External corrosion control: Cathodic protection.

(c) The amount of cathodic protection must be controlled so as to not damage the protective coating or the pipe.

Vector's procedures were inadequate because it did not specify the limits of voltage that may be applied to the pipe in order to prevent coating damage.

**15. §192.605(b)(1) (See Item 13 above)**

§192.709 Transmission lines: Record keeping.

Each operator shall maintain the following records for transmission line for the periods specified:

(a) The date, location, and description of each repair made to pipe (including pipe-to-pipe connections) must be retained for as long as the pipe remains in service.

(b) The date, location, and description of each repair made to parts of the pipeline system other than pipe must be retained for at least 5 years. However, repairs generated by patrols, surveys, inspections, or tests required by subparts SubPart L and M of this part must be retained in accordance with paragraph (c) of this section.

(c) A record of each patrol, survey, inspection, and test required by subparts L and M of this part must be retained for at least 5 years or until the next patrol, survey, inspection, or test is completed, whichever is longer.

Vector's O&M procedures were inadequate because the record keeping requirements were very vague and non comprehensive. The procedures must be more specific to provide guidance as to what is required (ie: what records are kept for leak surveys, MAOP establishment, etc.)

**16. §192.605(b)(1) (See Item 13 above)**

§192.713 Transmission lines: Permanent field repair of imperfections and damages.

(a) Each imperfection or damage that impairs the serviceability of pipe in a steel transmission line operating at or above 40 percent of SMYS must be-

(1) Removed by cutting out and replacing a cylindrical piece of pipe; or

(2) Repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe.

Vector's O&M was inadequate because it did not have language in the O&M Manual that addressed the repair of imperfections or damages by cutting out a cylindrical piece of pipe and replacing it with pipe of greater than or equal design strength, or the use of a reliable engineering method. Vector's procedures also referenced temporary repairs, but did not provide any guidance as to what a temporary repair entails.

**17. §192.605(b)(1) (See Item 13 Above)**

§192.713 Transmission lines: Permanent field repair of imperfections and damages.

(b) Operating pressure must be at a safe level during repair operations.

Vector's O&M procedures were inadequate because there was no mention of how the "safe pressure" is calculated. Vector personnel indicated that they use the Rupture Pressure Ratio as derived from B31-G. This must be included in the Manual.

**18. §192.605(b)(1) (See Item 13 above)**

§192.717 Transmission lines: Permanent field repair of leaks.

Each permanent field repair of a leak on a transmission line must be made by-

(d) Removing the leak by cutting out and replacing a cylindrical piece of pipe;

Vector's O&M Manual was inadequate because it did not have language in the O&M Manual that addressed the repair of a leak by cutting out a cylinder and replacing it with pipe of similar or greater design.

**19. §192.605(b)(1) (See Item 13 above)**

§192.719 Transmission lines: Testing of repairs.

(a) Testing of replacement pipe. If a segment of transmission line is repaired by cutting out the damaged portion of the pipe as a cylinder, the replacement pipe must be tested to the pressure required for a new line installed in the same location. This test may be made on the pipe before it is installed.

Vector's current procedures, Book 3, Standard 07-02-03, "Test Pressure and Duration", was inadequate because it only addressed pressure testing requirements for short sections of piping that have an MAOP of greater than or equal to 50% of SMYS. There was no guidance for ensuring that replacement sections of pipe are tested to the pressure required for a new line in the same location.

**20. §195.605(b)(1) (See Item 13 above)**

§192.731 Compressor stations: Inspection and testing of relief devices.

(c) Each remote control shutdown device must be inspected and tested at intervals not exceeding 15 months, but at least once each calendar year, to determine that it functions properly.

Vecor's O&M procedures were inadequate because it did not address remote control shutdown device testing in the O&M Manual. Vector needs to add language that specifies the frequency of testing, what documentation is required as a result of the testing, and that prompt remedial repair or replacement is required for any deficiencies found. Additionally, language should also be added to the O&M Manual that states each station has its own specific testing procedure.

**21. 195.605(b)(1) (See Item 13 above)**

§192.736 Compressor stations: Gas detection.

(e) Each gas detection and alarm system required by this section must be maintained to function properly. The maintenance must include performance tests.

Vector's O&M Manual was inadequate because the frequency of the testing was not specified in the manual. The Manual should also provide guidance on how to test the systems.

**22. §192.605(b)(1) (See Item 13 above)**

§192.743 Pressure limiting and regulating stations: Capacity of relief devices

(c) If a relief device is of insufficient capacity, a new or additional device must be installed to provide the capacity required by paragraph (a) of this section.

Vector's procedures were inadequate because they did not specify that capacities must be compared, and new or additional devices must be installed if the capacity is not sufficient for the relief.

**23. §192.605(b)(1) (See Item 13 above)**

§192.745 Valve maintenance: Transmission lines.

(a) Each transmission line valve that might be required during any emergency must be inspected and partially operated at intervals not exceeding 15 months, but at least once each calendar year.

(b) Each operator must take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve.

Vector's procedures were inadequate because they did not include any language that requires all emergency valves must be inspected once per calendar year, not to exceed 15 months, and prompt remedial action is required for any inoperable valve, or designate an alternative valve in its place.

**24. §192.605(b)(1) (See Item 13 above)**

§192.751 Prevention of accidental ignition.

Each operator shall take steps to minimize the danger of accidental ignition of gas in any structure or area where the presence of gas constitutes a hazard of fire or explosion, including the following:

(b) When a hazardous amount of gas is being vented into open air, each potential source of ignition must be removed from the area and a fire extinguisher must be provided.

Vector's O&M Manual was inadequate because it did not have language that indicated where fire extinguishers shall be located, particularly if a hazardous amount of gas is being vented into the air.

**25. §192.605 Procedural manual for operations, maintenance, and emergencies**

**§192.605(b) - The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.**

**(4) Gathering of data needed for reporting incidents under Part 191 of this chapter in a timely and effective manner.**

§191.7 Report submission requirements.

(a) General. Except as provided in paragraph (b) of this section, an operator must submit each report required by this part electronically to the Pipeline and Hazardous Materials Safety Administration at <http://opsweb.phmsa.dot.gov> unless an alternative reporting method is authorized in accordance with paragraph (d) of this section.

Vector's O&M Manual was not adequate because it did not specify that incident reports are to be filed electronically.

**26. §192.605(b)(4) (See Item 25 above)**

§191.15(a) Transmission systems, gathering systems, and liquefied natural gas facilities. Incident report.

(b) Transmission or Gathering. Each operator of a transmission or a gathering pipeline system must submit DOT Form PHMSA F 7100.2 as soon as practicable but not more than 30 days after detection of an incident required to be reported under § 191.5 of this part.

Vector's O&M Manual was not adequate because there was no language that addresses the submission of a final report after the investigation of an incident has been completed. The requirement to submit the final report are in the directions for Form 7100.2 and should be noted within the O&M manual.

**27. §192.615(a)(3)(i) Emergency plans.**

**(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:**

**(3) Prompt and effective response to a notice of each type of emergency, including the following:**

**(i) Gas detected inside or near a building.**

Vector's O&M Manual was inadequate because it did not provide enough guidance on what to do if there were gas detected inside or near a building. For example, the procedure did not address how to determine and document the extent and concentration of gas below grade during a leak response. Vector provided the document Book 7, called "Emergency Response", which appeared to address the emergency response actions required for liquids operation. The section for the natural gas side was incomplete.

**28. §192.615(a)(4) Emergency Plans**

**(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:**

**(4) The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency.**

Vector's O&M procedures were inadequate because they did not address this requirement. The list that Vector showed the MI-PSC staff was a list for equipment they would use for their liquid assets. The emergency equipment list for a natural gas emergency was not completed yet.

**29. §192.615 Emergency plans.**

**b) Each operator shall:**

**(1) Furnish its supervisors who are responsible for emergency action a copy of that portion of the latest edition of the emergency procedures established under paragraph (a) of this section as necessary for compliance with those procedures.**

Vector's O&M procedures were inadequate because the procedures lacked the requirement that the emergency plan be furnished to supervisory personnel who are responsible for emergency action.

### **30. §192.617 Investigation of failures.**

**Each operator shall establish procedures for analyzing accidents and failures, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of a recurrence.**

Vector's O&M manual was inadequate because it did not address a process for sample selection and preservation of failed equipment after an incident. Vector's procedures also lacked the process and the form to address the chain of custody for evidence gathered after an incident.

#### Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.237. 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.

If, after opportunity for a hearing, your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.237). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 90 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested (not mandated) that Vector Pipeline, L.P. maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to David Barrett, Director, Central Region, Pipeline

and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 3-2012-1002M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

David Barrett  
Director, Central Region  
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*