

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 23, 2012

Mr. Larry Davied
Vice President, Technical Services
Magellan Pipeline Company
One Williams Center
Tulsa, OK 74172

CPF 4-2012-5011M

Dear Mr. Davied:

On various dates in 2010, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected Magellan Pipeline Company O&M procedures.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Magellan Pipeline Company plans or procedures, as described below:

1. **§195.5 Conversion to service subject to this part.**
 - (a) **A steel pipeline previously used in service not subject to this part qualifies for use under this part if the operator prepares and follows a written procedure to accomplish the following:**
 - (3) **All known unsafe defects and conditions must be corrected in accordance with this part.**

The procedure 7.06-ADM-011, Conversion to Service Procedure, section 2.0 Procedure, must state that *unsafe problems and defects* will be corrected in accordance with Part 195.

2. §195.52 Telephonic notice of certain accidents.

(a) At the earliest practicable moment following discovery of a release of the hazardous liquid or carbon dioxide transported resulting in an event described in §195.50, the operator of the system shall give notice, in accordance with paragraph (b) of this section, of any failure that: (5) In the judgment of the operator was significant even though it did not meet the criteria of any other paragraph of this section.

Magellan's Release Reporting Procedure (13.01-ADM-001, section 3.2.2) does not have an explanation for what the requirement to report "significant" means to the Company for telephonic reporting of accidents. Also, there is no assignment of responsibility for specific determination of what "significant" means or the factors for deciding if this type of accident should be reported. Magellan must modify its procedures to define significant and identify the position responsible for making this decision.

3. §195.116 Valves.

(d) Each valve must be both hydrostatically shell tested and hydrostatically seat tested without leakage to at least the requirements set forth in section 10 of API Standard 6D (incorporated by reference, see §195.3).

Magellan's Pressure Testing procedure (7.03-ADM-001, section 3.8) should require valves to be tested or require complete documentation from the vendor that the required testing was performed. The testing documentation should include testing the valve body as well as the seat without leakage according to section 10 of API Standard 6D.

4. §195.120 Passage of internal inspection devices.

(a) Except as provided in paragraphs (b) and (c) of this section, each new pipeline and each line section of a pipeline where the line pipe, valve, fitting or other line component is replaced, must be designed and constructed to accommodate the passage of instrumented internal inspection devices.

Magellan Pipeline Design Specs, Piping Design, section 1.0, states that the design will be constructed to accommodate instrumented internal inspection devices. PHMSA is unsure of how this document fits into the Magellan Operations and Maintenance procedures and that this document alone is adequate to ensure the requirements of 195.120 are met, especially since a component change-out that may not be done under what appears to be a construction design specification. Also, Magellan procedures specify accommodation for internal inspection devices on new construction or when there are "significant modifications." The Magellan procedures do not define significant modifications so PHMSA is unable to determine if the procedure is adequate to ensure compliance with 195.120(a). The Magellan Operations and Maintenance procedures must be modified so that it is clear that the pipeline will be designed and constructed to accommodate the passage of instrumented internal inspection devices when a component is replaced according to the requirements of 195.120.

5. §195.214 Welding procedures.

(a) Welding must be performed by a qualified welder in accordance with welding procedures qualified under Section 5 of API 1104 or Section IX of the ASME Boiler and Pressure Vessel Code (ibr, see § 195.3) . The quality of the test welds used to qualify the welding procedure shall be determined by destructive testing. (b) Each welding procedure must be recorded in detail, including the results of the qualifying tests. This record must be retained and followed whenever the procedure is used.

A. The Magellan welding procedures (WE-ADM-003, WE-ADM-004, WE-ADM-005, etc.) do not specify that all welding will be performed using a qualified welding procedure. Also, Magellan has separate procedures for repair welding and construction welding. Magellan must modify each of its welding procedures to require that all welding will be performed to a qualified welding procedure.

B. The Magellan welding procedures (WE-ADM-003, WE-ADM-004, WE-ADM-005, etc.) do not specify the use of Magellan Form QW-482 to record the qualified welding procedure that the Operator uses for this purpose. The Operator must modify its welding procedures to reference form QW-482.

6. §195.222 Welders: Qualification of welders.

(a) Each welder must be qualified in accordance with section 6 of API 1104 (ibr, see § 195.3 or section IX of the ASME Boiler and Pressure Vessel Code, (ibr, see § 195.3) except that a welder qualified under an earlier edition than listed in § 195.3 may weld but may not re-qualify under that earlier edition.

(b) No welder may weld with a welding process unless, within the preceding 6 calendar months, the welder has—

(1) Engaged in welding with that process; and

(2) Had one welded tested and found acceptable under section 9 of API 1104 (ibr,see § 195.3).

The Magellan Welder/Welding Operator Performance Qualifications (WPQ) form (07-Form-0721) indicates that it covers welder qualification for ASME IX but is used for both API 1104 and ASME IX qualifications. The document should indicate that it is used for both types of welder qualifications and include all required variables. Also, the form used to record the welder qualification is titled “requalification.” It should be titled qualification/requalification as it is used for both. The Magellan procedures that pertain to welder qualification must also reference the requirement to use 07-Form-0721.

7. §195.226 Welding: Arc burns.

(c) A ground may not be welded to the pipe or fitting that is being welded.

Magellan’s Construction and Fabrication of Pipelines and Related Piping Systems procedure (WE-ADM-003, 5.2.6) should specify that the ground “connection” rather than ground clamps will not be welded to the pipe, similar to the use in Magellan procedure WE-ADM-003, 5.2.4.

8. §195.228 Welds and welding inspection: Standards of acceptability.

(a) Each weld and welding must be inspected to insure compliance with the requirements of this subpart. Visual inspection must be supplemented by non-destructive testing.

(b) The acceptability of a weld is determined according to the standards in Section 9 of API 1104. However, if a girth weld is unacceptable under those standards for a reason other than a crack, and if Appendix A to API 1104 (ibr, see § 195.3) applies to the weld, the acceptability of the weld may be determined under that appendix.

The Magellan Maintenance Welding and Requirement for Welding and Requalification procedures (WE-ADM-004, section 8, WE-ADM-005, section 5) should require that the standard for visual inspection of welding be specified by the procedure and consistent with the welding standard. If the welding is being performed according to API 1104, the Magellan procedure must specify the basis for determining the acceptability of the weld visually and otherwise will be based on the API 1104 standard, if the welding is being performed according to ASME IX, the basis for determining the acceptability of the weld visually and otherwise will be based on the ASME IX standard.

9. §195.266 Construction records.

A complete record that shows the following must be maintained by the operator involved for the life of each pipeline facility:

(a) The total number of girth welds and the number nondestructively tested, including the number rejected and the disposition of each rejected weld.

(b) The amount, location, and cover of each size of pipe installed.

(c) The location of each crossing of another pipeline.

(d) The location of each buried utility crossing.

(e) The location of each overhead crossing.

(f) The location of each valve and corrosion test station.

The Magellan procedure for records requirements (Critical Drawings and Map List, 7.08-ADM-001, sections 1, 2) and Project File Index document (07-Form-bbbb) for new construction must be modified to include overhead crossings and depth of cover. Magellan has a requirement to document ground profile but ground profile and depth of cover are not the same. The Operator must ensure that all items specified in 195.266 are covered by the procedures, including depth of cover and overhead crossings. While Magellan has verbally stated that it no longer uses overhead crossings, this is not specified by the procedures. Without this, the requirement for documenting overhead crossings must be in the Magellan procedures. In addition, the Critical Drawing List (7.08-ADM-001) must include all of the requirements in 195.266 including depth of cover and overhead crossings. The Critical Drawing List form includes a section for DOT facilities and one for Part 195 facilities. PHMSA is unsure of the distinction Magellan is making but the Part 195 records list is incomplete.

10. §195.302 General requirements.

(a) Except as otherwise provided in this section and in §195.305(b), no operator may operate a pipeline unless it has been pressure tested under this subpart without leakage. In addition, no operator may return to service a segment of pipeline that has been replaced, relocated, or otherwise changed until it has been pressure tested under this subpart without leakage.

The Magellan procedures for pressure testing (Pressure Testing, 7.03-ADM-001, section 3.1.3) must define a “short segment” in terms of how it applies to the use of pre-tested pipe. Pre-tested pipe should be restricted to repairs and not for replacement of segments or rerouting. A verbal description of the actual use of pre-tested pipe seems consistent with the intent of Part 195, but the procedures are not adequately specific to ensure the proper application.

11. §195.305 Testing of components.

(a) Each pressure test under §195.302 must test all pipe and attached fittings, including components, unless otherwise permitted by paragraph (b) of this section.

Magellan procedures for pressure testing (Pressure Testing, 7.03-ADM-001, section 3.1.5) must require that any pressure test conducted according to 195.302 must include all pipes and attached fittings, including components, unless otherwise permitted by 195.305(b).

12. §195.310 Records

(b) The record required by paragraph (a) of this section must include:

- (1) The pressure recording charts;**
- (2) Test instrument calibration data;**
- (3) The name of the operator, the name of the person responsible for making the test, and the name of the test company used, if any;**
- (4) The date and time of the test;**
- (5) The minimum test pressure;**
- (6) The test medium;**
- (7) A description of the facility tested and the test apparatus;**
- (8) An explanation of any pressure discontinuities, including test failures, that appear on the pressure recording charts; and,**
- (9) Where elevation differences in the section under test exceed 100 feet (30 meters), a profile of the pipeline that shows the elevation and test sites over the entire length of the test section.**
- (10) Temperature of the test medium or pipe during the test period**

Magellan 07-FORM-0013 specifies the records that must be maintained but does not include the temperature charts. The Magellan procedure must specify that original temperature and pressure test charts be included in the documentation. Also, in Section 3.1.5 of Magellan procedure 7.03-ADM-001, Pressure Testing, the term “consideration” for metallurgical analysis should be defined to specify the factors that will be used to make the determination. The Pressure Testing procedures don’t cover possible changes in pressure due to temperature changes during the test. The Pressure Testing procedure for pipe should specify that any changes in pressures during the test must be accounted for to validate the test.

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

(d) Abnormal operation. 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.

Magellan procedure 9.02-ADM-003 states that in the *transition* from abnormal to normal the Controller shall monitor and maintain pressures, flow rates, communications and ensure line integrity for the safe operation of an active pipeline, while 195.402(d)(2) requires “checking variations from normal operation *after abnormal operation has ended* at sufficient critical locations in the system to determine continued integrity and safe operation.” Magellan must modify its procedures to include the required checking after the abnormal operation has ended.

14. §195.402 Procedural manual for operations, maintenance, and emergencies.

(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:

(4) Determining which pipeline facilities are located in areas that would require an immediate response by the operator to prevent hazards to the public if the facilities failed or malfunctioned.

Magellan verbally states that they treat their entire pipeline system as an immediate response area. However, there is no procedural reference for this statement. If Magellan treats their entire pipeline system as an immediate response area the Operator should modify its procedures to state this.

15. §195.402 Procedural manual for operations, maintenance, and emergencies.

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:

(6) Minimizing the potential for hazards identified under paragraph (c)(4) of this section and the possibility of recurrence of accidents analyzed under paragraph (c)(5) of this section.

The Magellan procedure SIP-ADM-13.02 provides for actions to be taken for correcting deficiencies based on incident investigation. However, the procedure does not specify that the Operator must take actions to prevent recurrence. Magellan must modify its procedure to state that the Operator will take actions to minimize the possibility of recurrence of accidents.

16. §195.402 Procedural manual for operations, maintenance, and emergencies.

(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:

(9) In the case of facilities not equipped to fail safe that are identified under §195.402(c)(4) or that control receipt and delivery of the hazardous liquid or carbon dioxide, detecting abnormal operating conditions by monitoring pressure, temperature, flow or other appropriate operational data and transmitting this data to an attended location.

Magellan procedure Operating Pressures, SIP-ADM-7.07, does not address fail safe considerations. Section 2.2 of the procedure identifies engineering controls as the primary protection for potential over-pressure. Magellan should modify its procedures to define fail safe and identify procedures for any facilities not designed to fail safe. If there are no facilities identified as not equipped to fail safe, the Operator should make a statement to this effect in the procedures.

17. §195.402 Procedural manual for operations, maintenance, and emergencies.

(d) Abnormal operation. 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;

(1) Responding to, investigating, and correcting the cause of;

(i) Unintended closure of valves or shutdowns;

(ii) Increase or decrease in pressure or flow rate outside normal operating limits;

(iii) Loss of communications;

(iv) Operation of any safety device;

(v) Any other malfunction of a component, deviation from normal operation, or personnel error which could cause a hazard to persons or property.

(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.

(3) Correcting variations from normal operation of pressure and flow equipment and controls.

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

(5) Periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation and taking corrective action where deficiencies are found.

The Magellan procedure 9.02-ADM-003, is titled Abnormal Operations Procedure, but then defines and describes the methods for managing abnormal operating conditions. *Abnormal operating condition* is a defined term in Subpart G, Qualification of Pipeline Personnel, and is different than the *Abnormal operation* defined in 195.402(d). The list referred in 9.02-ADM-003 and found in 13.01-ADM-008 titled Abnormal Operating Conditions List refers to the conditions defined by 195.402(d). Magellan 13-FORM-0020 titled Abnormal Operating Condition Report also lists conditions defined as *Abnormal Operation* by 195.402(d). The Magellan procedure seems to have confused the two terms. Magellan must revise its procedures to be consistent with the definitions and usage of the terms in Part 195.

18. §195.404 Maps and Records.

(b) Each operator shall maintain for at least 3 years daily operating records that indicate-

(2) Any emergency or abnormal operation to which the procedures under §195.402 apply.

The Magellan procedures did not specify retention requirements for operating records for emergency or abnormal operation to which the procedures under 195.402(d) and (e) apply. Magellan form 13-FORM-0020 titled Abnormal Operating Condition Report, must have a specified retention period consistent with 195.404(b)(2). Also, Magellan needs to ensure that its procedures include the appropriate records retention requirements for all records required by Part 195, not just records with defined forms. In addition, electronic records need to have a retention schedule specified by the Magellan operations and maintenance procedures just as with paper records.

19. §195.420 Valve maintenance.

(a) Each operator shall maintain each valve that is necessary for the safe operation of its pipeline systems in good working order at all times.

(b) Each operator shall, at intervals not exceeding 7 1/2 months, but at least twice each calendar year, inspect each mainline valve to determine that it is functioning properly.

The Magellan procedure 7.13-ADM-134, Annual Valve and Operator Inspection does not define the valves that are subject to annual inspection. Magellan must revise the procedure to specify the valves that are covered by 7.13-ADM-134 similar to the Magellan procedure 7.13-ADM-1035, Mainline Valve Inspection.

20. §195.422 Pipeline Repairs.

(a) Each operator shall, in repairing its pipeline systems, insure that the repairs are made in a safe manner and are made so as to prevent damage to persons or property.

The Magellan procedure 7.03-ADM-009, RSTRENG Analysis of Corrosion Procedure, specifies the lower limit of metal loss applicable to the procedure but does not specify an upper limit. Magellan should modify its procedures to specify an upper limit of metal loss (80%) for the remaining strength calculation to be valid.

21. §195.424 Pipe movement.

(b) No operator may move any pipeline containing highly volatile liquids where materials in the line section involved are joined by welding unless-

(3) The pressure in that line section is reduced to the lower of the following:

(ii) The lowest practical level that will maintain the highly volatile liquid in a liquid state with continuous flow, but not less than 50 p.s.i. (345 kPa) gage above the vapor pressure of the commodity.

The Magellan procedure 7.05-ADM-013, Pipeline Lowering (Movement) Procedure, does not specify the prescriptive safety margin required for moving a HVL pipeline as required in 195.424(b)(3)(ii). The regulation requires the pressure be reduced to not less than 50 psig above the vapor pressure of the HVL commodity. Magellan must modify its procedure to specify this pressure lowering requirement.

22. §195.428 Overpressure safety devices and overfill protection systems

(a) Except as provided in paragraph (b) of this section, each operator shall, at intervals not exceeding 15 months, but at least once each calendar year, or in the case of pipelines used to carry highly volatile liquids, at intervals not to exceed 7½ months, but at least twice each calendar year, inspect and test each pressure limiting device, relief valve, pressure regulator, or other item of pressure control equipment to determine that it is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity and reliability of operation for the service in which it is used.

For overpressure devices that protect the Magellan system but are owned and tested by another operator, Magellan should require that its personnel witness testing of these overpressure protection device inspections. Also, Magellan 07-FORM-0741 should require the retention of the test documentation and qualification records for third party individuals performing inspection and testing of these over-pressure protection devices.

23. §195.444 CPM leak detection.

Each computational pipeline monitoring (CPM) leak detection system installed on a hazardous liquid pipeline transporting liquid in single phase (without gas in the liquid) must comply with API 1130 in operating, maintaining, testing, record keeping, and dispatcher training of the system.

Magellan uses CPM but its Start-up and Shut-down Procedure, 9.02-ADM-002 and Normal Operations and Line Monitoring Procedure, 9.02-ADM-017 does not have any references to performing CPM per API 1130. Magellan should modify its procedure to refer to the requirements of API 1130.

24. §195.436 Security of facilities.

Each operator shall provide protection for each pumping station and breakout tank area and other exposed facility (such as scraper traps) from vandalism and unauthorized entry.

The Magellan Physical Security Standards procedure 8.01-ADM-002 includes pump stations, breakout tanks, and scraper traps but does not mention “other exposed facilities” as specified by 195.436. The Magellan procedure must be revised to be consistent with the requirements of 195.436.

25. §195.575 Which facilities must I electrically isolate and what inspections, tests, and safeguards are required?

(a) You must electrically isolate each buried or submerged pipeline from other metallic structures, unless you electrically interconnect and cathodically protect the pipeline and the other structures as a single unit.

(b) You must install one or more insulating devices where electrical isolation of a portion of a pipeline is necessary to facilitate the application of corrosion control.

(c) You must inspect and electrically test each electrical isolation to assure the isolation is adequate.

(d) If you install an insulating device in an area where a combustible atmosphere is reasonable to foresee, you must take precautions to prevent arcing.

(e) If a pipeline is in close proximity to electrical transmission tower footings, ground cables, or counterpoise, or in other areas where it is reasonable to foresee fault currents or an unusual risk of lightning, you must protect the pipeline against damage from fault currents or lightning and take protective measures at insulating devices.

The Magellan Corrosion Control Program procedure (7.04-ADM-001, section 2.9.4) specifies that the operator is to determine if the casing and carrier pipe are metallicity shorted if the difference in cathodic protection readings is within 100 mV. However, recent guidance issued by PHMSA also indicates that electrolytically shorted casings present an integrity threat. A casing may be electrolytically shorted when the difference between the cathodic protection readings for the casing and carrier pipe are greater than 100 mV. An indication that a casing may be electrolytically shorted is when the casing-to-soil potential is more negative than native carbon steel in soil. In addition to the additional testing required by the 100 mV criterion Magellan must modify its procedures to require additional testing if the casing-to-soil reading is elevated above the native potential of carbon steel in soil. If the casing is determined to be electrolytically shorted, Magellan must have procedural requirements for remediating the condition and achieving electrical isolation.

26. §195.52 Immediate notice of certain accidents.

(b) Information required. Each notice required by paragraph (a) of this section must be made to the National Response Center either by telephone to 800-424-8802 (in Washington, DC, 202-267-2675) or electronically at <http://www.nrc.uscg.mil> and must include the following information:

(1) Name, address and identification number of the operator.

- (2) **Name and telephone number of the reporter.**
- (3) **The location of the failure.**
- (4) **The time of the failure.**
- (5) **The fatalities and personal injuries, if any.**
- (6) **Initial estimate of amount of product released in accordance with paragraph (c) of this section.**
- (7) **All other significant facts known by the operator that are relevant to the cause of the failure or extent of the damages.**

(c) Calculation. A pipeline operator must have a written procedure to calculate and provide a reasonable initial estimate of the amount of released product.

The Magellan Emergency Code Red Investigation Procedure 9.02-ADM-011, page 4 table, revision 15 dated 08/18/10, specifies that the spill quantity estimate will default to a specified fixed reporting volume based on the pressure range. For example, the Magellan procedure specifies that rupture of a pipeline operating at a pressure of greater than 250 psig and having a diameter up to 12-inches is to be reported as a 3,000 barrel spill. However, 49 CFR 195, Amendment 195-15, effective November 26, 2010 requires the operator to have a written procedure to calculate and provide a reasonable initial estimate of the amount of released product. Magellan must revise its procedure to require calculation of a reasonable initial estimate of the amount of released product.

27. 195.402(a) 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 commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

The Magellan procedure “Safety Sign Matrix, 5.02-ADM-001” states that a specific sign identified by the matrix will be posted around each “pipeline facility” but then excludes mainline valves from this requirement. However, the term “pipeline facility” is defined by Part 195 to include all equipment used in the transportation of hazardous liquids, including valves. Magellan must modify its procedure to eliminate the definition conflict by listing the specific facilities that must have signs (at a minimum consistent with Part 195 requirements) or must place the prescribed signs on all “pipeline facilities,” including valves.

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 30 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 Magellan Pipeline Company maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to R.M. Seeley, Director, Southwest Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 4-2012-5011M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

R. M. Seeley
Director, Southwest Region
Pipeline and Hazardous
Materials Safety Administration

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