



U.S. Department  
of Transportation  
**Pipeline and Hazardous  
Materials Safety**

901 Locust Street, Suite 480  
Kansas City, MO 64106

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

**VIA ELECTRONIC MAIL TO: [aaron.milford@magellanlp.com](mailto:aaron.milford@magellanlp.com),  
[mark.materna@magellanlp.com](mailto:mark.materna@magellanlp.com)**

September 8, 2023

Mr. Aaron Milford  
President/CEO  
Magellan Pipeline, LLC  
One Williams Center  
PO Box 22186  
Tulsa, OK 74172

**CPF 3-2023-026-NOPV**

Dear: Mr. Milford

From June 27 to August 25, 2022, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected the Magellan Pipeline, LLC's (Magellan) Control Room Management (CRM) procedures and records in Tulsa, Oklahoma, by video conference.

As a result of the inspection, it is alleged that Magellan has committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The items inspected and the probable violations are:

**1. 195.446 Control Room Management**

**(a)....**

**(c) *Provide adequate information.* Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:**

**(1)....**

**(2) Conduct a point-to-point verification between SCADA displays and related field equipment when field equipment is added or moved and when other changes that affect pipeline safety are made to field equipment.**

Magellan’s point-to-point records were not adequate to demonstrate thoroughness of the verification process between SCADA displays and related field equipment. A review was completed of point-to-point records for the Bethany FHR to Kansas City project and the Razorback Pipeline project. During this review it was identified that alarm setpoint values were not actually available in the documentation to support verification of the alarms presenting at the right set point, with the correct priority, color and alarm description in the alarm log as well as appropriately on subsequent SCADA screens.

There was no indication of the test having been completed live or simulated. Screen verification was documented by a check mark, but there were no actual records showing which screens had been checked. Procedure 9.02-ADM-082 Revision:6 12/15/21, Sections 2.5 and 6.0, required the SCADA analyst to document simulated points. Section 5.7, Display Changes, had a note that stated, “[T]his verification may only be used when an existing point is moved on a display or added to a different display. New or rescaled points must be verified to the field device.” Section 5.7.6 required recording the name of the affected displays and final SCADA value or state, but not for new screens/displays. There was no other requirement to verify new screens or document the screens reviewed and verified.

**2. 195.446 Control room management.**

**(a)....**

**(c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:**

**(1)....**

**(3) Test and verify an internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months;**

Magellan’s test of the internal communication plan for safe manual operation was not adequate to demonstrate compliance. This was primarily the result of the inadequacy of procedure 9.02-ADM-028 REV 14 6/22/2022. While the procedure was very well thought out and thorough in what should be considered in a shut down, the procedure did provide direction and tools for the controllers to function/operate manually over a longer term outage and direction and tools for the control room to operate all systems collectively.

Test records were reviewed for 2019, 2020 and 2021. The form used for testing, Manual Operation Notification and Drill Checklist 09-FORM-1119, was designed for manual shutdown of a pipeline segment and documenting specific information communicated from the field for a short-term test. The form was not adequate to capture the requirements defined in Magellan’s procedure for manual operation, 9.02-ADM-028 REV 14 6/22/2022, which can occur over a

longer duration. The form, used for testing and manual operations, was missing critical information relevant to an entire SCADA outage. Missing from the form were tank levels (where appropriate), abnormal operations, emergencies, and leak detection. Such information can be reported by field personnel during their required manual operations checks reported to the control room . Additionally, the same pipeline system on the same console was tested in 2019 and 2020, while a different console was tested in 2021. A test of one console, each year, in a control room with multiple consoles is not adequate to evaluate the operator’s manual operation plan in the event of loss of SCADA because controllers need to be given experience in operating under the process in the event a catastrophic SCADA failure occurs.

Step 2.4 of the procedure directed Field Employees, as directed by Operations Control, to communicate with impacted customers or third parties, initiate manual shut down of all pumps, close valves, including tank valves and mainline valves, and report status to the controllers. The procedure did not provide a tool that identified those key customers, third parties, pumps and valves. The field is required to document manual shut down activity on the Daily Operations Log which is a separate document from the control room eLogger and Controller Hand Over. In follow up communications, Magellan indicated that, “[t]he controllers document what operations are running and will utilize this information to coordinate the pipeline shutdowns, if SCADA is unavailable.” This information was not available in the procedure. The process was unclear as to who is accountable to ensure all critical facilities, from across all 11 consoles, have been placed in the correct state (on/off, open/closed, shutdown) designated by the operator for manual shutdown and isolation. The controllers at the consoles worked as independent units accountable for the systems assigned to that console. Without a control room overview process the operator could not verify when manual shutdown was complete for the control room. They did not have anything for monitoring the lines and relied on eLogger to manage the system and monitor after shutdown.

Magellan had a testing process and form to document the test, but this is not the same process or form utilized for an actual event. The test should simulate the actual process that would be used in the event all of SCADA or a portion of the SCADA system is lost and not available to the controller.<sup>a</sup>

### **3. 195.446 Control room management.**

**(a)....**

**(c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:**

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<sup>a</sup> As part of Magellan’s continuous improvement process, the 09-FORM-1119 Manual Operation Notification and Drill Checklist was enhanced in December of 2022 by moving it to a Manual Shutdown and Monitoring tab on the Controller Hand Over of Responsibility and E-Log Form. This form is in excel format, which will allow the controller to add lines to the spreadsheet in the event of a true manual shutdown. It also creates a consistent place for information to be captured in either a drill setting or a true event. Additionally, the requirement to document the controller and impact to 3<sup>rd</sup> party or a customer has been added to the form. While this was a good improvement, it is not adequate to demonstrate compliance.

(1)....

**(5) Implement section 5 of API RP 1168 (incorporated by reference, *see* §195.3) to establish procedures for when a different controller assumes responsibility including the content of information to be exchanged.**

Magellan failed to implement section 5 of API RP 1168, Section 5.3.1, by not including a review of abnormal operations and emergencies during shift change. The shift change forms and Logmate notes for March 22, 2021, and April 12 & 13, 2021, were reviewed during inspection. The forms did not include a section to document abnormal operations (AO) or emergencies, third party incidents, or incident/safety events. The forms did require documentation of operations and maintenance items and a review of alarms, all relevant to API 1168 section 5. The forms also required a review of Logmate note entries, which document all alarms received. Alarms may be notification of an AO, but not all alarms relate to an AO. The operator indicated in procedure 9.02-ADM-022 Revision 23 11/02/2021 that AOs, emergencies, and safety events may be documented in the “Special Notes” section. However, there was no process to review ongoing AOs that cross over multiple shifts.

Magellan’s procedure 9.02-ADM-022 Revision 23 11/02/2021 was not adequate because it did not meet the requirements of API 1168, Section 5. This section of the standard addressed what needed to be communicated during shift change, specifically included are emergencies and abnormal operating conditions (AOC) during shift change. Magellan’s procedure lumped AOs and emergencies, safety events, and reportable events in to the “Special Notes” section of the shift change form along with items not required by API 1168. It did include operations, tank status, maintenance, alarm reviews, and ELog entries. It did not include third party incidents or changes to assets. Procedure 9.02-ADM-003 Revision: 20 07/14/21, section 2.1.6, required the controller to “Complete appropriate documentation for the Abnormal Operation as applicable.” The procedure did not define what is appropriate documentation. It is possible this related to the alarm response guide instructions, but it was not referenced as such.

The form had semi-instructions as prompts for controllers to complete a shift turnover. The procedure had required items to complete/include during shift turnover. The form and procedure, while connected, did not support each other and did not demonstrate implementation of API 1168, section 5.

The procedure 9.02-ADM-022 needs to be amended to include a review of AOCs and emergencies, whether that is through Logmate, creating a listing in the shift change form, or other means. Procedure 9.02-ADM-003 needs to be amended to better define “appropriate documentation for the Abnormal Operation...”. The alarm response guide needs to be reviewed and amended to provide a consistent approach for AOCs to direct controllers to document in Logmate.09-Form-1107 needs to be amended to include instruction for reviewing /adding AOCs and emergencies.

4. **195.446 Control room management.**

(a)....

(e) **Alarm management.** Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. An operator's plan must include:

(1)....

(4) **Review the alarm management plan required by this paragraph at least once each calendar year, but at intervals not exceeding 15 months, to determine the effectiveness of the plan**

Magellan's records for the annual review of the Alarm Management Plan to determine effectiveness was not adequate to demonstrate compliance. The operator provided CMS tasks allegedly demonstrating compliance dated 12/31/2019, 12/31/2020 and 12/31/2021. However, the documentation provided did not show what was considered and included in the review of the Alarm Management Plan to determine its effectiveness. The records provided did not show the review's findings or follow-up actions, if any, to improve the effectiveness of the plan.

The operator indicated they use the monthly review Key Performance Indicators (KPI) as their primary action to determine effectiveness of the plan. However, there was no summary or collective assessment representing an annual review.

5. **195.446 Control room management.**

(a)....

(h) **Training.** Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator. In addition the training program must include the following elements:

Magellan's training content review results and modifications failed to demonstrate an adequate review of the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. As an example of modifications made to the training content, Magellan recommended NCCER (National Center for Construction Education and Research) booklets be eliminated as a training content. However, Magellan had no records documenting how that decision was reached. Additionally, Magellan recommended an (Authorization for Expenditure) AFE to expand the simulator capabilities. However, there were no records to show how Magellan came to that solution. Magellan provided a form, Annual Operations Control Site Specific Training Review 09-FORM-1122, that was a checklist and identified content improvements. It was obvious from reviewing the records that reviews, and modifications were being made to the training content, and results were being recorded, but there were no documents that indicated what was reviewed or the findings/results of the review that

led to the modifications. Documentation to demonstrate compliance must include what was reviewed to identify potential improvements, who performed the review, the findings of the review, and actions taken to modify the content for improvement for training each controller to carry out the roles and responsibilities defined by the operator.

**6. 195.446 Control room management.**

**(a)....**

**(h) Training.** Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator. In addition the training program must include the following elements:

**(1)....**

**(6) Control room team training and exercises that include both controllers and other individuals, defined by the operator, who would reasonably be expected to operationally collaborate with controllers (control room personnel) during normal, abnormal or emergency situations. Operators must comply with the team training requirements under this paragraph no later than January 23, 2018.**

Magellan failed to demonstrate compliance with §195.446(h)(6) because they did not include in their procedures team training and exercises that included both controllers and other individuals, defined by the operator, who would reasonably be expected to operationally collaborate with controllers (control room personnel) during normal, abnormal or emergency situations. This was indicative of inadequate procedures SIP 9.02-ADM-029 Revision 11 07/14/2021 CRM Plan, section 3.8, and procedure SIP 9.02-ADM-083 Revision 11 11/01/2021, specifically section 3.5.6. These procedures did not require for the three operational modes (normal, abnormal, emergency) inclusion of any type of soft skills training.

Team trainings and exercises are required to include both controllers and those who would be expected to collaborate with controllers. Also required in the training is all modes of operation (normal, abnormal and emergency) and how an individual's behaviors and communication styles can change as the modes shift. Therefore, some inclusion of soft skills or team building type exercises is important to the Team Training effort.

Magellan employed primarily Computer Based Training (CBT) for Team Training. While CBT can be a reasonable option for some level of team training, it cannot be the sole source. The regulation requires "Control Room Team Training and exercises that include both controllers and other individuals defined by the operator." The FAQ provided further guidance that "at least one controller be present in Team Training sessions." A CBT is not adequate to demonstrate compliance because a CBT is individual training.

Additionally, the procedure also included a variety of emergency type response drills that controllers may be included in as participants. SIP 9.02-ADM-083, section 3.4.7, required the controllers complete a minimum of 1 drill/test or Code Red test each year. However, these drills typically focus on an emergency and not an emerging event, which is the expectation for Team Training exercises and training. There should be an attempt to rotate all controllers and "others" through the Team Training sessions and continue to supplement with CBTs as appropriate.

Magellan's procedure SIP 2.01-ADM 001 Training Matrix (Magellan Wide) under Element 2 identified job roles required to complete team training every 24 months. Those job titles or groups included field, ops managers, ops supervisors, scheduling, and controllers. While the procedure described who must attend and what topics may be covered and how often training is to occur for controllers and others, it falls short of defining who is responsible for developing and conducting team training and how to engage the "others" with controllers. The responsibility to "[e]nsure completion of control room team training," was assigned to the Supervisor of Operations Control Applications in section 3.5. This means the Supervisor needs to make sure the controller has completed the required training. The operator was using various drills, tabletops, public outreach drills OPA/FRP, CBTs and crediting those as team training. While elements of these drills and events have similarities of what can be covered in team training, they are not a substitute for a well thought out and engaging team training session.

**7. 195.446 Control room management.**

**(a)....**

**(j) Compliance and deviations. An operator must maintain for review during inspection:**

**(1) Records that demonstrate compliance with the requirements of this section;**

Magellan did not provide records adequate to demonstrate compliance for verification of correct safety related alarm set points and alarm descriptors when associated field instruments are calibrated or changed and at least once each calendar year, but at intervals not to exceed 15 months. The operator provided records from their CMS database identifying this task completion for 2019, 2020 and 2021. These records did not show what alarms were reviewed, or which notations of identified deficiencies and corrections were completed, as required by the SCADA and Operations Control Supervisor in SIP 9.02-ADM-084 Revision 5 01/01/2021, section 2.2 and 2.3. A task record from CMS database, alone, is not adequate to demonstrate compliance.

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed \$257,664 per violation per day the violation persists, up to a maximum of \$2,576,627 for a related series of violations. For violation occurring on or after March 21, 2022 and before January 6, 2023, the maximum penalty may not exceed \$239,142 per violation per day the violation persists, up to a maximum of \$2,391,412 for a related series of violations. For violation

occurring on or after May 3, 2021 and before March 21, 2022, the maximum penalty may not exceed \$225,134 per violation per day the violation persists, up to a maximum of \$2,251,334 for a related series of violations. For violation occurring on or after January 11, 2021 and before May 3, 2021, the maximum penalty may not exceed \$222,504 per violation per day the violation persists, up to a maximum of \$2,225,034 for a related series of violations. For violation occurring on or after July 31, 2019 and before January 11, 2021, the maximum penalty may not exceed \$218,647 per violation per day the violation persists, up to a maximum of \$2,186,465 for a related series of violations. For violation occurring on or after November 27, 2018 and before July 31, 2019, the maximum penalty may not exceed \$213,268 per violation per day, with a maximum penalty not to exceed \$2,132,679. For violation occurring on or after November 2, 2015 and before November 27, 2018, the maximum penalty may not exceed \$209,002 per violation per day, with a maximum penalty not to exceed \$2,090,022.

We have reviewed the circumstances and supporting documentation involved for the above probable violations and recommend that you be preliminarily assessed a civil penalty of \$ 39,100 as follows:

<u>Item number</u>	<u>PENALTY</u>
6	\$ 39,100

Proposed Compliance Order

With respect to items 1,2,3, and 6, pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Magellan Pipeline, LLC. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Warning Items

With respect to items 4, 5, and 7, 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. Failure to do so may result in additional enforcement action.

Response to this Notice

This Notice is issued in accordance with 49 C.F.R. § 190.207(c). Any response you may have submitted to the original Notice is no longer applicable. You must respond as set forth below.

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Enforcement Proceedings*. Please refer to this document and note the response options. All material you submit in response to this enforcement action may be 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).

Following your receipt of this Notice, you have 30 days to respond as described in the enclosed *Response Options*. 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 you are responding to this Notice, we propose that you submit your correspondence to my office within 30 days from receipt of this Notice. The Region Director may extend the period for responding upon a written request timely submitted demonstrating good cause for an extension.

In your correspondence on this matter, please refer to **CPF 3-2023-026-NOPV** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Gregory A. Ochs  
Director, Central Region, Office of Pipeline Safety  
Pipeline and Hazardous Materials Safety Administration

cc: Mark Materna, Director Pipeline Integrity ([mark.materna@magellanlp.com](mailto:mark.materna@magellanlp.com))

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

## PROPOSED COMPLIANCE ORDER

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

- A. In regard to Item 1 of the Notice pertaining to Magellan’s point-to-point (P2P) records being inadequate to provide thoroughness in the verification process between SCADA displays and related field equipment, Magellan must amend their procedures and forms to include verification and documentation of alarm set points, documentation of the screens verified, and whether the point was tested live or by simulation. These procedures and forms must be utilized to perform a P2P for the Bethany FHR to Kansas City project and the Razorback Pipeline project within **120** days of receipt of the Final Order.
- B. In regard to Item 2 of the Notice pertaining to Magellan’s test of the internal communication plan for safe manual operation not being adequate, Magellan must amend its procedure to include a detailed procedure and a test plan for the shutdown (manual shutdown) of the system, both in total and by console. If the operator wishes to continue to manually move product through the system, a procedure, forms, and test plan must be developed for that as well. The test plan must be representative of the plan and demonstrate a thorough test and documentation of the effort. Using the amended plan, the operator must complete a test and provide documentation to PHMSA within **90** days of receipt of the Final Order.
- C. In regard to Item 3 of the Notice pertaining to Magellan failing to implement Section 5 of API RP 1168 by not including a review of abnormal operations and emergencies during shift change, Magellan must modify its procedures to include documentation and communication of abnormal operations and emergencies during shift change. Controllers must be trained on the new procedures. Evidence of the amended procedure, forms, to include modification of the shift change form, and training must be provided to PHMSA within **60** days of receipt of the Final Order.
- D. In regard to Item 6 of the Notice pertaining to Magellan failing to not include team training and exercises that included both controllers and other individuals, defined by the operator, who would reasonably be expected to operationally collaborate with controllers (control room personnel) during normal, abnormal or emergency situations, Magellan must modify its procedures to include team trainings and exercises that include both controllers and those who would be expected to collaborate with controllers, i.e., “others.” The procedure must include the topics to be covered during the training sessions. Magellan must also modify its procedures to include training for all modes of operation (normal,

abnormal and emergency) as well as some soft skills. The operator must then complete the team training for all “others” and controllers and provide documentation of within **90** days of receipt of the Final Order.

- E. It is requested that Magellan Pipeline, LLC, maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Gregory Ochs, Director, Central Region, Pipeline and Hazardous Materials Safety Administration. 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.