December 8, 2023

Via Electronic Mail to: Gregory.Ochs@dot.gov

Mr. Gregory A. Ochs, Director
Central Region, Pipeline and Hazardous Materials Safety Administration
901 Locust Street, Suite 480
Kansas City, MO 64106

Re: CPF 3-2023-026- NOPV and CPF 3-2023-025-NOA

Dear Mr. Ochs,

On September 8, 2023, Magellan Midstream Partners, L.P. ("Magellan") received the Notice of Probable Violation (NOPV), Proposed Civil Penalty and Proposed Compliance Order, CPF 3-2023-026-NOPV and the Notice of Amendment (NOA) CPF 3-2023-025-NOA. On October 4, 2023, Magellan requested an extension of time to file its response. The extension was granted pursuant to a letter dated October 10, 2023, moving the due date to file a response to December 8, 2023.

Magellan appreciates and acknowledges the importance of PHMSA's commitment to pipeline and public safety. Magellan is committed to those same principles and appreciates the opportunity to work with PHMSA to address these allegations. This enforcement matter largely concerns the amount of documentation necessary to demonstrate compliance with regulatory requirements. Magellan respectfully contends that it is compliant with all regulatory requirements cited in this enforcement action, but acknowledges the enhancement opportunities referenced in the NOPV and NOA. Magellan submits the following summary responses followed by detailed responses below:

- Magellan provides comments below, but will not contest NOPV Items 1 and 6, the penalty associated with Item 6, or the related Items A, D, and E in the Proposed Compliance Order.
- Magellan provides comments below on NOPV Items 4, 5, and 7 which are Warning Items.
- Magellan contests NOPV Items 2 and 3, and Proposed Compliance Order Items B and C.
- Magellan contends that its current procedures already ensure compliance with applicable regulations; however, Magellan plans to amend procedures in accordance to the NOA.

Magellan's detailed responses to the allegations are as follows.

Item 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.

MAGELLAN RESPONSE:

Magellan contends that the documentation provided during the inspection and within Magellan's response to the Post-Inspection Written Preliminary Findings demonstrated compliance to the regulation; however, Magellan will not contest Item 1. Magellan's procedures and practices ensure thorough point-to-point verifications are completed, which has been demonstrated through the safe operations of the pipelines systems. Magellan acknowledges that alarm setpoint values were not utilized during the point-to-point, but highlights that an existing, separate and independent procedure and process ensure proper setpoint values are utilized prior to operation of the assets.

To provide more context and clarification on Magellan's position that we met the regulatory requirements, the following response is humbly provided.

Magellan performs a point-to-point verification on all points that pass data to the SCADA system. Magellan's 9.02-ADM-082 Point-to-Point Verification Procedure includes detailed processes for conducting the point-to-point, including verification of alarm priority, color, alarm description, screens, and documenting if points are simulated. Point-to-point records are reattained within the repository database "SCADA Connect." Magellan addresses alarm set point implementation within SCADA through a corporate database (ODS) which populates the values into the SCADA. This process is managed through the 9.02-ADM-084 Pressure and Flow Program Management Procedure and 07-FORM-0012 Pipeline Integrity Review Checklist prior to the assets being commissioned. This procedure and checklist ensure alarm set points are in place and verified prior to assets being handed over to the controller.

During a point-to-point verification, the priority, color and alarm descriptions are verified and documented. 9.02-ADM-082 Point-to-Point Verification Procedure requires the SCADA analyst to ensure accurate data is displayed throughout the verification process. For example, the procedure requires the SCADA analyst to "Verify the correct priority SCADA alarm or event is generated for each state" and "Verify the correct state is shown on each display where the point occurs." Magellan's SCADA system utilizes configuration standardization that drives consistency and accuracy in alarm priority, color and descriptions through measurement ID fields. Through the point-to-point process this is validated and documented within SCADA Connect.

During the point-to-point verification, the SCADA screens are reviewed and verified per procedure, whether the point is being displayed on an existing screen or on a new screen. The documentation that this verification has been completed is per device and notated within SCADA Connect through the related check box labeled "Screens Verified".

Figure 1: Screen shot of SCADA Connect

Documentation to identify if a device was simulated or not during the point-to-point checkout is addressed through a check box in the SCADA Connect record. Magellan's 9.02-ADM-082 – Point-to-Point Verification Procedure section 6 states that point must be verified to the end device before being placed into service. If a point is simulated, the device will be marked as simulated in SCADA connect and will be deactivated. Once that device has been verified to the end device, the check box will be unchecked, and the points can be activated.

Per the requirements of Item A of the Proposed Compliance Order, Magellan has modified the point-to-point procedures and forms to include verification and documentation of alarm setpoint values, increased the level of detail in the documentation of screens verified, and will continue to document whether the point was tested through simulation or not. Additionally, Magellan has completed the point-to-point re-verifications for the Bethany FHR to Kansas City project and the Razorback Pipeline project utilizing the modified procedure and process. Documentation of the completed re-verification will be provided in a forthcoming communication.

Item 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.

MAGELLAN RESPONSE:

Magellan contests Item 2 and respectfully requests that this Probable Violation and Item B in the associated Proposed Compliance Order be rescinded. Magellan demonstrated with procedures and records that the requirements of 195.446(c)(3), to test and verify the internal communication plan to provide an adequate means for safely operating a pipeline manually, were met through the completion and documentation of the manual shutdown drill performed each calendar year.

Magellan's 9.02-ADM-028 - Operations Control Manual Shutdown and Monitoring Procedure is utilized to conduct a manual shutdown of a pipeline or system. Per the procedure, it is the Manager of Operations Control or designee's responsibility to ensure annually, not to exceed 15 months, a drill is completed to test and verify the internal communication plan. This drill is documented on 09-FORM-1119 Manual Operation Notification and Drill Checklist. Records provided by Magellan demonstrated the Manual Operation Notification and Drill Checklist were complete, accurate, and thorough. Effective communication between Operation Control and Operations was demonstrated, and a successful manual shutdown of a pipeline system was achieved. Additionally, record submission 54-55, which included SCADA events depicting the field manually shutting down equipment, demonstrated the results of the drill, and the appropriate equipment was shut down and valves closed.

The 09-FORM-1119 Manual Operation Notification and Drill Checklist facilitates and documents the testing of the internal communication plan to provide an adequate means for safely operating a pipeline manually. The form captures the appropriate information necessary to test and verify the communication plan, including capturing any deficiencies and resolution of those deficiencies. PHMSA states that critical information relevant to an entire SCADA outage was missing from the 09-FORM-1119 Manual Operation Notification and Drill Checklist, such as tank levels, abnormal operations, emergencies, and leak detection. As noted in 9.02-ADM-028 - Operations Control Manual Shutdown and Monitoring Procedure, this information is captured within the Controller Hand Over of Responsibility and E-Log form or within the Daily Operations Log, as part of normal daily activities. The manual shutdown drill simulates the actual process that a controller utilizes to perform a manual shutdown of the system. Additionally, during drills or live events, controllers have available the Controller Hand Over of Responsibility and E-Log as an aid in identifying which pipeline operations are active and third parties which could be impacted. Magellan's spatial data integration system is utilized as necessary to provide a system overview of assets. During manual shutdowns, field employees are acting at the direction of the controller – "As directed by" when performing actions per SIP-9.02-ADM-028 - Operations Control Manual Shutdown and Monitoring Procedure, such as communicating with third parties, initiating manual shut down of pumps or closing valves. The Field Employees and Controllers both have working relationships with these third parties and contacts are accessible.

PHMSA states "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." SIP-9.02-ADM-028 - Operations Control Manual Shutdown and Monitoring Procedure states the controller is accountable for ensuring the assets are in the correct state. Section 1.1 – "The purpose of this procedure is to provide a standardized method for communicating and implementing manual (i.e., **Controller directed**, field performed) shut down and monitoring of the DOT regulated Pipeline System." Section 2.6.1 states all controllers shall:

> *Coordinate manual shut down of Pipeline System through best available means (i.e. phone notification, email, text, etc.), directing field employees to (2.6.1.1) initiate manual shut down of all pumps associated with the Pipeline System, including tank pumps, booster pumps and mainline pump units.*

Since each controller has domain over their console, not the entire control room, they are ensuring the assets monitored and controlled by their console are in the correct state. The Manager of Operations Control monitors the status of the manual shut down as a whole and provides summary reports to the Manual Operations Stakeholder Group on the status and any abnormal operations experienced per procedure.

PHMSA states "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," however, the regulation states to test and verify the communication plan. The communication plan is the same whether it is being implemented on one console or all consoles.

Magellan acknowledges 09-FORM-1119 Manual Operation Notification and Drill Checklist was completed for the same pipelines system in 2019 and 2020. The regulation does not specify the same pipeline system cannot be used, but as part of Magellan's continuous improvement process and provided within the response to Preliminary Written Findings for Provide Adequate Information Q21_22 on January 18, 2023, requirements within SIP-9.02-ADM-028 - Operations Control Manual Shutdown and Monitoring Procedure have been updated to ensure the same pipeline systems or consoles are not repeated each year.

Accordingly, Magellan requests Probable Violation Item 2 and Proposed Compliance Order Item B be rescinded from CPF 3-2023-026.

Item 3: § 195.446 *Control room management.*
> **(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)….**
> **(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.

MAGELLAN RESPONSE:

Magellan contests Item 3 and respectfully requests Probable Violation and Item C in the associated Proposed Compliance Order be rescinded. Magellan demonstrated compliance through its procedures and records that the requirements of 195.446(c)(5) were met, which includes the implementation of section 5 of API 1168 to establish procedures for when a different controller assumes responsibility including the content of information to be exchanged.

PHMSA asserted "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". Magellan's 9.02-ADM-022 Controller Hand over of Responsibility and E-log Procedure section 2.1.5.7 states the departing controller shall prepare in the controller hand over form "special notes relative to safety, operations, **emergency**, **abnormal** or infrequent **operations**, reportable Logmate events (note required), Controller Required Reading (CRR) and Operations Control Advisory (OCA) communications".

Within the same procedure, section 2.1.15 states during the handover process both controllers will sign the controller hand over form, only after review is completed, ensuring the abnormal operations and emergencies are reviewed.

Additionally, within the 09-FORM-1107 Controller Handover of Responsibility and E-log form, there are instructions which require the Controllers to document the AOs and emergencies within the form.

> *4. All pertinent activities and operations that occur must be documented on this form, and each of these should be completed and updated as information is available. Examples include: ETA of all product changes, tank status and activity (including room and available figures and fill/empty time estimates), time field employees due back for operations off normal hours, batch information as appropriate (grade, batch size, gravities, etc..), SRO or Order number for 3rd party batches (or other specific identifier), scheduled segment shut downs or start-ups, scheduled pigging activities (launch/bypass/rec), **special notes relative to safety, operations, emergency, abnormal or infrequent operations, significant reportable LogMate events** (e.g. note required), CRR's, OCA's, maintenance activities (including personnel and equipment status), Alarm Inhibits including reason and expected duration and any other information the Controller determines appropriate.*

The 09-FORM-1107 Controller Handover of Responsibility and E-log form also reiterates the requirement for a review of the handover during shift change. This review would include AOs and emergencies.

> *7. At shift change, review the elements of the Hand Over and sign the form in the appropriate box when all elements have been reviewed. A time must be included when signing your name. The dropdown menu must be used - typing a date and time cannot be done. Erasing an incorrect time is done by deleting the box or clicking on the white bar in the dropdown menu.*

These procedures demonstrate that Magellan meets requirements to implement API 1168 section 5, which includes documenting and reviewing abnormal operations and emergencies into the handover process.

PHMSA states "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." As stated above, Magellan's 9.02-ADM-022 Controller Hand over of Responsibility and E-log Procedure section 2.1.5.7 states the departing controller shall prepare in the controller hand over form "special notes relative to safety, operations, **emergency**, **abnormal** or infrequent **operations**, reportable Logmate events (note required), Controller Required Reading (CRR) and Operations Control Advisory (OCA) communications."

PHMSA later states in the NOPV Item 3 writeup, "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." Within this statement, it is acknowledged that the AOs and emergencies are to be documented in the Special Notes section of the Handover. Per the section 2.1.5.7, if an event affects the console, such as an ongoing event, then it should be captured on the form. While there is not a specific call out for this reviewing ongoing AOs which go across multiple shifts, neither is there a specific requirement for a review of "ongoing AOs" in API RP 1168 section 5. Rather, it is implied in both instances.

PHMSA later states "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." This further acknowledges that AOs and emergencies are required to be documented within a specific section of the 09-FORM-1107 Controller Handover of Responsibility and E-log form.

PHMSA states that third party incidents or changes to assets were not covered by Magellan's procedure, but 9.02-ADM-022 Controller Hand over of Responsibility and E-log Procedure section 2.1.5.7 covers third party incidents and changes to assets via the Controller Required Readings. The requirements within section 2.1.5.7 do not exclude relevant third-party incidents. Per the scope of 9.02-ADM-025 Controller Required Readings procedure:

- *The purpose of this procedure is to establish a standardized process for communicating critical information to the Controller.*

- *Examples of information that may require Controller Required Reading (CRR) distribution include, MOCR/PSSR approval to place assets monitored or controlled by Operations Control in service, pressure reductions, changes to alarming, screen changes, new or changed site-specific procedures, operating changes, measurement/metering changes, and policy changes.*

PHMSA also asserts that "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." Magellan's 9.02-ADM-003 Abnormal Operations procedure, establishes standardized methods for managing an Abnormal Operating Conditions (AOC), including defining roles, responsibilities and authority for Controllers and Operations Control Supervisors (if Operator Qualified and filling a Controller role). Section 2.1.6 requires the controller to complete appropriate documentation for the Abnormal Operation as applicable. 9.02-ADM-021 Work Order and Logmate Note Entry Procedure requires all abnormal operations to be documented via a Logmate controller note and establishes a standardized method for Logmate note entries. Section 2.1.4 provides specific details on what is appropriate documentation for AOs within Logmate:

> *Controller Note information should include: a detailed description of the event response and Controller Actions Taken as required per Alarm Response Table. Logmate Note information should capture and specify: if the event was a verified False Alarm or verified as a True indication; if the Location was Manned or Unmanned at the time of the Alarm; if any operations were required to be shutdown; if an "AO" is required or if a "Work Order" is needed.*

Magellan requests Probable Violation Item 3 and Proposed Compliance Order Item C be rescinded from CPF 3-2023-026.

Item 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.

MAGELLAN RESPONSE:

Magellan provides the following response to provide additional context and clarification on Item 4.

9.02-ADM-030 Alarm Management Philosophy and Written Plan provides guidance and requirements to effectively manage alarms within the control room. The alarm system performance is tracked, monitored, and reported monthly. During this process, monthly alarm management review meetings are held to review and analyze the alarm performance. These reports were provided as record submission 70C during the CRM inspection. These monthly reports are utilized in the review of the alarm management plan on an annual basis to determine the effectiveness of the plan.

As provided in the response to the Preliminary Written Response for Alarm Management questions 13 and 14 on January 18, 2023, in the interest of Magellan's effort to continuous improvement process and procedure review, Magellan enhanced SIP 9.02-ADM-030 Alarm Management Philosophy and Written Plan's annual review process and procedure. These enhancements include the development of 09-FORM-1134 Annual Operations Control Alarm Management Program Review, to capture the review for effectiveness process, and additional language to the procedure which requires the Analyst to complete the form as part of the annual review.

Item 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.

MAGELLAN RESPONSE:

Magellan provides the following response to provide additional context and clarification on Item 5.

In accordance with 195.446 (h), Magellan has an established and mature controller training program. An annual review of the training program content is conducted to identify potential improvements at least once each calendar year, as required in 9.02-ADM-083 Operations Controller Training Procedure. This review is captured in 09-FORM-1122 Annual Operations Control Site Specific Training Review form. Magellan provided documentation of completed forms demonstrating the tasks were thoroughly completed (record submission 47). The 09-FORM-1122 Annual Operations Control Site Specific Training Review form includes the performance goal, if the goal was met, the performance documentation, and recommendations and/or comments. It is not only a checklist, but a comprehensive evaluation form to ensure a standardized process of review is occurring. The result of the annual review demonstrates improvements and enhancements to the training materials and program, strengthening the effectiveness of the training program.

Item 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 mangers, 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.

    MAGELLAN RESPONSE:

    Magellan contends the documentation provided during the inspection and within its response to the Post-Inspection Written Preliminary Findings demonstrated compliance to the regulation; however, Magellan will not contest Item 6. Magellan demonstrated through records that control room team training and exercises were being conducted, which included both controllers and other individuals who would reasonably be expected to operationally collaborate with controllers during normal, abnormal, or emergency situations. Magellan acknowledges that the control room team training format was not conducted as a singular team training session, but instead accomplished through a multitude of training events and media.

    Magellan specifically defines within 9.02-ADM-083 Operations Control Training Procedure section 3.5.6, that "Biennially, (24 months), ensure completion of control room team training and exercises by employees as listed in SIP 2.01-ADM-001 Training Matrix." The training matrix defines who must complete the control room team training, including those individuals who would reasonably be expected to operationally collaborate with controllers during normal, abnormal, or emergency situations. To meet the requirements of the regulation for team training, Magellan utilizes several different approaches to ensure effective collaboration and understanding. One of those methods is computer-based training (CBT), specifically

designed for covering the collaboration with controllers in normal, abnormal, and emergency situations. The CBT addresses roles and responsibilities of controllers and those that interact with controllers, as well as soft skills around those interactions. Records were submitted in submission 67 include training rosters for CBTs, which include many of Magellan's personnel outside Operations Control. But CBTs are just one piece of the control room team training. Magellan also provided in record submission 48, annual Controller training, records of Code Red Simulation, which include not only the qualified controllers, but also the Magellan Trainer. Additionally, record submission 28 contains training rosters for controller annual training. These rosters cover topics such as abnormal operations and Code Red team training. Magellan does not rely on the control room team training CBT to be the only team training effort. 9.02-ADM-083 Operations Control Training Procedure sections 3.5.6.1 through 3.5.6.6 provide more definition on training that is included in team training:

> 3.5.6.1   *Initial CBT or classroom training of current and new employees listed above*
>
> 3.5.6.2   *Biennial CBT or classroom refresher control room team training*
>
> 3.5.6.3   *Code Red simulation or tabletop drills*
>
> 3.5.6.4   *HAZWOPER training and drills*
>
> 3.5.6.5   *Emergency Response drills*
>
> 3.5.6.6   *Annual controller training*

Normal, abnormal, and emergency operational modes are imbedded within the required control room team training, though not specifically called out within the procedure. The content of the training meets the requirements of the regulation.

PHMSA states "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." One of the operational modes which is referenced in the regulation is emergency. To state that this does not meet the intent of the regulation seems to be contradictory. Code Red and SMT drills provides those individuals with skills, including soft skills, necessary for addressing conditions that occur.

The Supervisor of Operations Control Applications is responsible for developing and conducting the team training. Within 9.02-ADM-083 Operations Control Training Procedure, the Supervisor of Operation s Control Applications shall:

> 3.5.1   *Review and update the Operations Control Site Specific Controller and Supervisor Training Matrix and Operations Control Site Specific Individual Training Plan on an annual basis (not to exceed 15 months).*

> 3.5.2   *Review all training materials and documentation. Participate in annual review of training needs for the following year's training plans by the end of the 4th quarter.*

>> 3.5.2.1   *Annually, not to exceed 15 months, review Operations Control Site Specific Controller and Supervisor Training Matrix education and training program and material/content to determine frequency, effectiveness and potential improvements.*

> 3.5.6   *Biennially, (24 months), ensure completion of control room team training and exercises by employees as listed in SIP 2.01-ADM-001 Training Matrix. Content of control room team training may include:*

PHMSA states "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." Accordingly, PHMSA recognizes that Magellan utilizes a multifaceted approach to meet the requirements within the regulation. Additionally, the regulation does not specify that an Operator cannot use multiple training scenarios to meet the requirements.

Item 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.

MAGELLAN RESPONSE:

Magellan provides the following response to provide additional context and clarification on Item 7.

Magellan's 9.02-ADM-029 Control Room Management section 3.5.3 states "Verify the correct safety-related alarm set-point values and alarm descriptions when associated field instruments are calibrated or changed at least once each calendar year, but at intervals not to exceed 15 months". This is completed during the testing and calibration of the field-based equipment. As an example, SIP 7.13-ADM-725 Inspect, Test and Calibrate Pressure Switches and Transmitters details the process for inspecting, testing and calibrating pressure switches and transmitters.

In SIP 7.13-ADM-725 Inspect, Test and Calibrate Pressure Switches and Transmitters section 4, key steps have been provided which highlight the communication, interaction during testing, and verification of set-point values with Operations Control. In step 3, the field captures set-point values for devices to be tested/calibrated. In step 5A, the field communicates with affected parties, including Operations Control. In step 10, verification of set-points in the controller or PLC is confirmed. In step 12, verification with Operations Control for alarm set-point, alarm and transmitter range. In step 15, communication is performed to ensure a safe return to normal operations, including Operations Control.

These inspections are recorded within 07-FORM-0741 Protective and Control Device Inspection Record. Magellan provided records of these documents for several locations with record submission 36.

Supplemental to this inspection process, Magellan also performs an additional review to compare intended, corporate database settings and the SCADA settings, which are detailed within 9.02-ADM-084 Pressure and Flow Program Management Procedure. The SCADA supervisor annually performs a review of the SCADA set-point values comparing them to the corporate database for all safety-related set point values which are used in SCADA. They then notify Operations Control Supervisors and Integrity Management Supervisors of any discrepancies to review and address any instances, when needed. The CMS task completion records referenced by PHMSA are indications that each group has completed their assigned tasks. The Operations Control Manager has the final completion of this process after the Operations Control Supervisors have made any necessary adjustments to the set-point values.

SUMMARY

Magellan shares PHMSA's commitment to pipeline safety and appreciates the opportunity to respond and proactively work through these issues with PHMSA. Deliverables associated with the Proposed Compliance Order and NOAs will be submitted under separate correspondence as they are enacted. Magellan wishes to preserve its right to a hearing regarding Items 2 and 3 in the NOPV and Items B and C in the Proposed Compliance Order, and first requests an informal conference to discuss the remaining issues in an effort to make the hearing unnecessary. If a hearing is necessary, Magellan will be represented by in-house counsel, Danny Scroggins, and possibly outside counsel. If you have any questions or need additional information, please contact me by phone at (918) 574-7073 or e-mail at mark.materna@oneok.com to discuss.

Sincerely,

Mark Materna
Director, Pipeline Integrity

Cc: Jason Smith, Vice President, Asset Integrity,
    Charles Misak, Director, Integrated Operations Services
    Joe Butler, Director, Operations Control
    Danny Scroggins, Senior Legal Attorney