

January 23, 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 3-2022-052

Dear Mr. Ochs,

Magellan Pipeline Company, L.P. (“Magellan”) received a Notice of Probable Violation (NOPV), Proposed Civil Penalties and Proposed Compliance Order, CPF 3-2022-052, on November 10, 2022. In accordance with *Response Options for Pipeline Operators in Enforcement Proceedings*, Magellan requested an extension of time to prepare an appropriate response to the Notice on December 7, 2022. Pursuant to 49 CFR 190.209, Magellan also requested a copy of the Case File to review the basis for the allegations and a copy of the Proposed Civil Penalty Worksheet on December 20, 2022 which PHMSA provided the same day. Magellan was granted an extension until January 23, 2023 to respond to the notice. Magellan respectfully submits the following response in accordance with the *Response Options for Pipeline Operators in Enforcement Proceedings*.

The NOPV alleges that Magellan committed five probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (C.F.R.) during the 2021 inspections of the petroleum pipeline facilities in Tulsa and Shinn Pence, Oklahoma, and Cheyenne, Wyoming. The NOPV also includes a Proposed Compliance Order and Proposed Civil Penalty. **Magellan does not contest Item #2, Item #4, or Item #5 but contests the Civil Penalty Calculation for Item #2. Magellan fully contests the two probable violations and proposed Compliance Order for Item #1 and Item #3 as explained below. Magellan requests a hearing on this matter and also requests an informal settlement conference as it believes that this matter can be fully resolved prior to a hearing.**

**Item #1: §194.105 Worst case discharge.**

- (a) Each operator shall determine the worst case discharge for each of its response zones and provide the methodology, including calculations, used to arrive at the volume.**
- (b) The worst-case discharge is the largest volume, in barrels (cubic meters), of the following:**
  - (1) ....**
  - (4) Operators may claim prevention credits for breakout tank secondary containment and other specific spill prevention measures as follows:**

<b>Prevention measure</b>	<b>Standard</b>	<b>Credit (percent)</b>
Secondary containment > 100%	NFPA 30	50
Built/repaired to API standards	API RP 620/650/653	10
Overfill protection standards	API RP 2350	5
Testing/cathodic protection	API STD 650/651/653	5
Tertiary containment/drainage/treatment	NFPA 30	5
Maximum allowable credit	-	75

Magellan failed to provide the methodology, including calculations, it used to arrive at the claimed prevention credits for breakout tank secondary containment and other specific spill prevention measures when determining the worst-case discharge. The Western District Response Plan last revised May 3, 2019, states, "All of the breakout tanks in the pipeline system are within adequate secondary containment, therefore, the discharge volumes for the largest tank were determined by adjusting the total tank volume downward by 50% per the company guidelines." The Facility Risk Assessments conducted in 2020 documented that Magellan did not have calculations on record showing that the secondary containment was adequate for the Cheyenne, Oklahoma City (Reno Ave), and the Central Cushing Terminals. Magellan responded to PHMSA's findings by stating that the Facility Risk Assessments conducted in 2020 did not incorporate the Spill Prevention, Control, and Countermeasures (SPCC) plan which contained the containment calculations greater than 100 percent, as required by NFPA 30. However, after PHMSA reviewed the SPCC plan, the secondary containment calculations were not provided. Magellan only presented the total containment of the diking certified by a third-party Professional Engineer, which did not verify secondary containment capacity.

**MAGELLAN RESPONSE:**

Magellan contests the basis for the claims asserted in Item #1. At the identified facilities—Cheyenne, Oklahoma City (Reno Ave) and the Central Cushing Terminals—Magellan has the supporting calculations to demonstrate adequate secondary containment capacity for the tank considered in the Worst Case Discharge scenario at each location. Magellan hereby provides this information electronically as Attachment 1 – Tank Secondary Containment Calculation Oklahoma City - Reno, Attachment 2 – Tank Secondary Containment Calculation Central Cushing, and Attachment 3 – Tank Secondary Containment Calculation Cheyenne.

Magellan internally calculated the secondary containment capacity for one of the facilities. With respect to the other two facilities, Magellan hired professional third parties to calculate and verify the secondary containment capacities. This verification reflects precise calculations using computerized software of the type that regulators and industry increasingly utilize. As advanced data capturing such as LiDAR is more routinely used for topographic surveys, secondary containment calculations are able to be computed within software programs. Magellan believes that a professional third-party calculation of the tank containment is simply no different than these LiDAR-based calculations that provide an adequate verification of the secondary containment capacity. These documents are accepted by other governmental agencies like the EPA as an acceptable means to verify Spill Prevention, Control and Countermeasure plans.

Magellan requests that this Probable Violation Item #1 and associated Proposed Compliance Order A be removed from CPF 3-2022-052.

**Item #2: §195.406 Maximum operating pressure.**

**(a) ....**

**(b) No operator may permit the pressure in a pipeline during surges or other variations from normal operations to exceed 110 percent of the operating pressure limit established under paragraph (a) of this section. Each operator must provide adequate controls and protective equipment to control the pressure within this limit.**

Magellan failed to provide adequate controls and protective equipment to control the operating pressure of the pipeline system to prevent it from exceeding 110 percent of the maximum operating pressure (MOP) established under § 195.406(a) during surges or other variations from normal operations. PHMSA reviewed the Abnormal Operation documentation of the Maximum Operating Pressure (MOP) exceedance that occurred at MPC - Glenpool OK West. On June 9, 2020, the pipeline was documented to exceed 400 psig which exceeded 110 percent of the 275 psig MOP. The Abnormal Operation report documented the following: "This relief event occurred upon startup of the Explorer Pipeline Delivery into Glenpool West and pressure was SCADA indicated at 30 psi. The LPMR was inspected and tested per 7.13-ADM-006 - Maintain/Repair Pressure Limiting Valves (LPMR, MSR) Procedure. The LPMR set point was verified per 9.02-ADM-031 - Overpressure Protection Settings, and the verification/test was documented on 07-FORM-0741 - PCD Inspection Record Excel.

An analog gauge installed on the pipe at the relief point captured >400 psi when the LPMR valve relieved. Due to the exceedance of MOP, a project was initiated by AI to install an engineered solution. This relief occurred due to a slack line condition when Explorer switched back in. An existing 1/2" line that equalizes receiving pressure to tank head pressure, was replaced with a 1" line. This 1" line was designed to increase equalization to prevent a slack line occurrence on future deliveries."

This violation is a repeat of violations found in CPF # 3-2021-5001, Item # 1

**MAGELLAN RESPONSE:**

Magellan does not contest the claim in Item #2 that Glenpool West exceeded 110% of the Maximum Operating Pressure on June 9, 2020. However, Magellan does contest the assertions that 1) PHMSA discovered the violation as opposed to Magellan self-disclosing it, 2) that it is a repeat violation, and 3) that the violation was allowed to continue and not corrected within ten days.

The penalty calculation indicates that the exceedance of 110 percent of maximum operating pressure was discovered by PHMSA. Magellan does not agree with the PHMSA assertion of discovery. Magellan responded to this event and also documented the event through the abnormal operating condition report. During the PHMSA Screening Inspection in March of 2021, Magellan again voluntarily pointed out to the inspector that

Magellan had exceeded 110% of the Maximum Operating Pressure. The penalty analysis in this matter should credit Magellan for self-disclosing the abnormal operation condition under the “Circumstances” section of the civil penalty calculation.

Magellan does not dispute that it had previously experienced an exceedance of its Maximum Operating Pressure previously in El Dorado, KS but notes that the many differences in the two scenarios should distinguish that these two events are not a repeat of violation. As the following will explain, the two events took place at different facility locations and had different causes. CPF #3-2021-5001 was an occurrence in El Dorado, Kansas and was caused by freezing cold conditions that were distinctive and unique to those assets. As documented in CPF #3-2021-5001, Item #1, “the pressure surge occurred due to an unplanned pump shut down at the El Dorado East Terminal while transferring flow from El Dorado West Terminal directly into the El Dorado East mainlines. The pressure surge relief valve operated as designed, however the overpressure occurred because of ice buildup in the low pressure manifold relief line, almost entirely blocking the flow path to the relief tank.”

Whereas this occurrence was in Glenpool, Oklahoma was caused by a slack line upon startup of a third party delivery. These two occurrences are quite dissimilar in origin and should be considered as separate offenses within the Civil Penalty Calculation.

Lastly Magellan contests that the “Duration of the longest violation in days” lasted longer than 10 days as documented on the Civil Penalty Calculation. Magellan’s documentation shows that the non-compliance was identified on June 9, 2020 at which time Magellan took immediate action by shutting down the asset for a thorough investigation. Beginning on this day, this segment no longer operated at all, let alone at levels that exceed the maximum operating pressure. On June 16, 2020, Magellan increased the capacity of a pressure equalization line on this receipt piping in order to prevent future slack line conditions prior to approving the assets to resume normal operations.

Accordingly, Magellan requests that PHMSA reconsider its application of these three factors in light of these facts and reduce the total in the Civil Penalty Calculation for Item #2.

**Item #3: §195.452 Pipeline integrity management in high consequence areas.**

**(i) What preventive and mitigative measures must an operator take to protect the high consequence area?**

**(1) ....**

**(2) Risk analysis criteria. In identifying the need for additional preventive and mitigative measures, an operator must evaluate the likelihood of a pipeline release occurring and how a release could affect the high consequence area. This determination must consider all relevant risk factors, including, but not limited to:**

**(i) ....**

**(vi) Ditches alongside a roadway the pipeline crosses;**

Magellan failed to consider all relevant risk factors while identifying the need for additional preventative and mitigative measures where it did not consider the relevant risk factor of ditches alongside a roadway the pipeline crosses.

On December 4, 2020, a release occurred at approximately Mile Post 0.2 of the Commerce City to Russellville six-inch pipeline. The leak traveled along a roadside ditch to a drain that led to an offsite pond. This pipeline runs through the highly populated urban area of Denver and directly down the center of the roadway from Mile Post 11-23 and again from Mile Post 26-32. However, the July 2021 Commerce City to Russellville 6" Risk Analysis Worksheet did not identify this relevant risk factor even after the release occurred and traveled in a ditch alongside a roadway.

In the July 2021 Commerce City to Russellville 6" Risk Analysis Worksheet document, under the Additional Risk Factors/Controls section, the following question was asked: "Are there any specific areas along the pipeline where additional measures should be considered to mitigate the consequence of a spill such as in a farm field following the drain tile into a waterway or ditches alongside the roadway that the pipeline crosses?" The GIS coordinator documented the answer to the question as the following, "No GIS data is currently available for the specific area mentioned." The Field Personnel documented the answer the question as, "No."

#### **MAGELLAN RESPONSE:**

Magellan contests Item #3 and the Proposed Compliance Order associated with this item. Magellan considered this factor in its risk analysis for this pipeline segment in the manner required by 49 CFR 195.452(i). Magellan undertakes a robust analysis that considers all of the risk analysis criteria in Section 195.452(i)(2) (as applicable) including using modeling software for over land spread analysis. Magellan uses this analysis to predict how liquids would flow in the event that they were released from the pipeline. The sufficiency of Magellan's risk assessment program can be seen since the program's preventive and mitigation measures correspond closely to PHMSA's expectations in 49 CFR 195.452(i)(1).

Magellan's risk analysis program also incorporates the interaction with its emergency response teams regarding its procedures for responding to pipeline releases. For this segment and others in similar areas, Magellan's response plans already consider roadside ditches (whether or not the pipeline actually crosses the ditch) and techniques to mitigate the consequence of a release such as the one that occurred near the Commerce City pump station. Within the Western District Emergency Response Plan, the Initial Response Action Checklist Section states that when the location is unknown to "Prioritize high consequence areas such as population areas" and to "Work with local emergency agencies to search waterways at culverts". It further states that when the release location is known, "Assign personnel to assess the impact and find leading edge of release. Examine culverts, ditches, drain tiles, or other potential pathways" and "Determine if sewers will be impacted, make notifications and take necessary actions." Magellan employees are trained and regularly conduct emergency response drills to ensure understanding of the Emergency Response Plans.

The statements “to the contrary” purportedly contained in the response to the question in The Risk Analysis Worksheet really reflect no more than a misunderstanding between PHMSA and Magellan. For instance, the Worksheet asks under Additional Risk Factors/Controls, “Are there any specific areas along the pipeline *where additional measures should be considered* (emphasis added) to mitigate the consequence of a spill such as in a farm field following the drain tile into a waterway or ditches alongside the roadway that the pipeline crosses?” The question was evaluated in the Risk Analysis Worksheet and it was determined by Magellan Subject Matter Experts that no *additional* risk mitigation measures were needed. As Magellan explained above, Magellan’s risk analysis already incorporates the flow of liquids across the ground. Magellan’s Risk Analysis Process had already validated the spill impact analysis along the Commerce City to Russellville pipeline segment and identified direct and indirect High Consequence Areas. As a result, Magellan’s Risk Analysis Process identified the location of the 2020 release to be a High Consequence Area as well as the areas identified between MP 11-23 and MP 26-32.

Likewise, the NOPV appears to misinterpret the response of the GIS coordinator on the Worksheet that “No GIS data is currently available for the specific area”. As explained above, Magellan had already performed a comprehensive risk assessment of this area including an over land spread flow analysis that predicted the spread of liquid from a pipeline release. This statement merely explains that there is no GIS data for this specific area that would have the resolution to address ditches. Magellan’s risk program, however, took these conditions into account and had developed a risk analysis to identify the additional preventive and mitigative measures that would be needed for the pipeline in this area.

Magellan requests that this Probable Violation Item #3 and associated Proposed Compliance Order C be removed from CPF 3-2022-052.

**Item #4: §195.583 What must I do to monitor atmospheric corrosion control?**

**(a) You must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:**

If the pipeline is located:	Then the frequency of inspection is:
Onshore	At least once every 3 calendar years, but with intervals not exceeding 39 months.
Offshore	At least once each calendar year, but with intervals not exceeding 15 months.

Magellan failed to monitor for atmospheric corrosion of onshore pipelines by inspecting each pipeline or portion of pipeline that was exposed to the atmosphere for evidence of atmospheric corrosion at least once every three calendar years, but with intervals not exceeding 39 months. The Rapid City Lateral 6-inch line, Mile Post (MP) 186.23 gravitometer location did not receive an atmospheric corrosion inspection in its history, prior to July 15, 2021. Corrosion technicians did not enter the location to inspect the pipeline facility for atmospheric corrosion because of the radioactive placard associated with the

instrumentation and the assumption that the technicians did not have the proper training to enter the site. On July 15, 2021, after PHMSA identified the issue Magellan inspected the MP 186.23 gravitometer location and ranked the pipe as bare with light surface rust.

#### **MAGELLAN RESPONSE:**

Magellan does not contest Item #4 associated with the Rapid City Lateral 6-inch line, MP 186.23 gravitometer. Magellan completed an atmospheric inspection at this location on July 15, 2021 and no further mitigations or repairs were required based upon the inspection. Magellan intends to submit the Civil Penalty upon receipt of the Final Order.

#### **Item #5: §195.583 What must I do to monitor atmospheric corrosion control?**

(a) ....

**(b) During inspections you must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.**

Magellan failed to give particular attention to pipe under thermal insulation during inspections to monitor for atmospheric corrosion at three locations. Magellan's 7.04- ADM-002 Atmospheric Corrosion Inspections Procedure defines the following grading system:

1. Localized pitting, General Corrosion >12.5% in depth of the pipe wall, Dent, Gouge, stress corrosion cracking (SCC).
2. Locations with an indication of active corrosion including, but not limited to: Pipe on pipe support contact points, under insulation, span over/in water including splash zones, external floating tank roof, tank bottom extension, and areas of disbonded coating.
3. General Corrosion < 12.5% in depth off the pipe wall.
4. No Rust and/or Light Surface Rust.
5. Not Exposed – under water, silted in, covered.

PHMSA inspectors observed at the Strouds Station a type of thermal insulation over the temperature sensor on the pipe that was not removable to allow for monitoring of atmospheric corrosion under the insulation. Magellan originally graded this location a 4 for no rust and/or light surface rust on August 21, 2020. The location was then regraded a “2” after the PHMSA observation on July 16, 2021, which indicates a location with an indication of active corrosion including, but not limited to: pipe on pipe support contact points, under insulation, span over/in water including splash zones, external floating tank roof, tank bottom extension, and areas of disbonded coating.

PHMSA inspectors observed that there was noticeable rust occurring at the Douglas Junction location, under the thermal insulation jacket for temperature sensor TT-CX. Magellan graded this location as a “4” for no rust and/or light surface rust on August 31, 2020, during the last atmospheric corrosion inspection. The location was then regraded after the PHMSA observation on July 15, 2021, as a “2” for locations with an indication of active corrosion including, but not limited to: pipe on pipe support contact points, under insulation, span

over/in water including splash zones, external floating tank roof, tank bottom extension, and areas of disbanded coating.

PHMSA inspectors observed at Rapid City Station corrosion under the thermal insulation jacket for the temperature sensor. Magellan originally graded this location as a “4” for no rust and/or light surface rust on August 31, 2020, on the atmospheric corrosion inspection. The location was then regraded a “2” after the PHMSA observation on July 13, 2021, for a location with an indication of active corrosion including, but not limited to: pipe on pipe support contact points, under insulation, span over/in water including splash zones, external floating tank roof, tank bottom extension, and areas of disbanded coating. Following PHMSA inspection, Magellan personnel responded that their inspection process requires refining so that all thermal insulations are identified and inspected.

All these locations were remediated as of February 11, 2022.

**MAGELLAN RESPONSE:**

Magellan does not contest the warning item associated with the atmospheric corrosion inspections listed at Strouds Station, Douglas Junction and Rapid City Station.

Magellan removed the thermal insulation on each of these assets and completed additional atmospheric inspections in July 2021 and remediation activities were complete by February 2022.

Magellan appreciates the opportunity to respond and proactively work through the alleged violations with PHMSA in an effort to make the hearing unnecessary. If you have any questions or need additional information, please contact me by phone at (918) 574-7073 or e-mail at [mark.materna@magellanlp.com](mailto:mark.materna@magellanlp.com) to discuss.

Sincerely,



Mark Materna  
Director, Pipeline Integrity

Cc: Jason Smith, Vice President, Asset Integrity, Magellan