



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

JUL 09 2009

1200 New Jersey Ave., SE
Washington, DC 20590

Mr. Richard A. Olson
Vice President, Transportation Operations
Magellan Midstream Partners, L.P.
One Williams Center
P.O. Box 22186
Tulsa, OK 74121-2186

**Re: CPF No. 4-2006-5020
CPF No. 4-2006-5021M**


Dear Mr. Olson:

Enclosed are the Final Order and the Order Directing Amendment issued by the Pipeline and Hazardous Materials Safety Administration in the above-referenced companion cases. The Final Order makes findings of violation, assesses a civil penalty of \$147,500, and specifies certain actions that need to be taken by Magellan to comply with the pipeline safety regulations. The Order Directing Amendment makes a finding of inadequate procedures and requires that Magellan make certain amendments to its written integrity management program.

The penalty payment terms are set forth in the Final Order. When the civil penalty has been paid and the terms of the Compliance Order completed, as determined by the Director, Southwest Region, PHMSA, CPF No. 4-2006-5020 will be closed. When the terms of the Order Directing Amendment have been completed, as determined by the Director, Southwest Region, CPF No. 4-2006-5021M will be closed. Your receipt of the Final Order and Order Directing Amendment constitute service of those documents under 49 C.F.R. § 190.5.

Thank you for your cooperation in these matters.

Sincerely,


Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

For 1

Enclosure

cc: Paul E. Pratt, Esq., Magellan Midstream Partners, L.P.
Mr. Rod M. Seeley, Director, Southwest Region, PHMSA

CERTIFIED MAIL – RETURN RECEIPT REQUESTED [7005 0390 0005 6162 5012]

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, DC 20590**

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In the Matter of)	
)	
Magellan Midstream Partners, L.P.,)	CPF No. 4-2006-5020
)	
Respondent.)	

FINAL ORDER

Between April 11-15 and May 2-6, 2005, pursuant to 49 U.S.C. § 60117, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS) and its state agent, the Minnesota Office of Pipeline Safety, conducted an on-site pipeline safety inspection of the Integrity Management Program procedures and records of Magellan Midstream Partners, L.P. (Magellan or Respondent), at the company's offices in Tulsa, Oklahoma. Magellan is a major energy supplier in the United States whose assets include an 8,700-mile petroleum products pipeline system and a 1,100-mile ammonia pipeline system.

As a result of the inspection, the Director, Southwest Region, OPS (Director), issued to Respondent, by letter dated May 2, 2006, a Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order.¹ In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Respondent committed certain violations of 49 C.F.R. Part 195 and assessing a civil penalty of \$215,000 for the alleged violations. The Notice also proposed that Respondent be required to take certain measures to correct the alleged violations.

Magellan responded to the Notice by letter dated June 2, 2006 (Response). Respondent contested the allegations, penalties, and proposed compliance order, and requested a hearing. A hearing was subsequently held on September 21, 2006, in Houston, Texas, with May Chiranand, Esquire, Office of Chief Counsel, PHMSA, presiding. After the hearing, Respondent provided two post-hearing submissions dated October 17, 2006, and February 23, 2007 (collectively, Brief).²

FINDINGS OF VIOLATION

The Notice alleged three violations with respect to Magellan's Integrity Management Program (IMP) under 49 C.F.R. § 195.452. These consisted of (1) a failure to include in its program a process for identifying which of its pipeline segments could affect High Consequence Areas

¹ The Notice originally assigned docket number CPF No. 4-2005-5020 to this action. It was later re-designated as CPF No. 4-2006-5020.

² Unless otherwise noted, all citations to Respondent's Brief refer to the October 17, 2006, document.

(HCAs);³ (2) a failure to follow company procedures by assessing the highest-risk segments first; and (3) a failure to establish an assessment schedule based on all risk factors reflecting the condition of each segment. Each of these allegations is discussed more fully below.

Item 1: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(f)(1), which states:

§ 195.452 Pipeline integrity management in high consequence areas.

(a)

(f) *What are the elements of an integrity management program?*

An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:

(1) A process for identifying which pipeline segments could affect a high consequence area;

The Notice alleged that Magellan violated 49 C.F.R. § 195.452(f)(1) by failing to include in its IMP a process for identifying which of its pipeline segments could affect an HCA. Specifically, the Notice alleged that although Magellan’s IMP purported to identify those segments of its pipeline system that “could affect” HCAs, it failed to use a technically justifiable or defensible methodology as part of that identification process.

The Notice alleged that Magellan had performed an “Overland Spread Analysis” as the underlying basis or model for identifying its “could affect” pipeline segments. This analysis was designed to estimate, for every 100-foot segment of pipe, the ground area that could potentially be affected by a hazardous liquid spill.⁴ Magellan calculated the overland spill volume by assuming a 15-minute pipeline flow rate plus 28% of the drain-down volume.⁵ Respondent then overlaid a map of the area where the product would potentially spill with available HCA maps to make the ultimate determination of which HCAs could be affected by a spill. According to the Notice, there was inadequate technical justification for limiting the drain-down volume to 28%; therefore, the use of this percentage could have the effect of significantly reducing the total number of miles deemed capable of affecting an HCA.

At the hearing and in its Brief, Magellan defended its Overland Spread Analysis generally and its 28% drain-down figure in particular. Magellan stated in its Brief:

³ HCAs are defined as commercially navigable waterways, high population areas, and areas unusually sensitive to environmental damage. *See* 49 C.F.R. § 195.450.

⁴ Brief, at 7.

⁵ The drain-down volume is the volume that could drain from pipeline segments upstream and downstream of the leak site. Respondent explained in its Brief that it calculated the maximum drain-down volume by estimating the volume of product that could potentially “gravity drain” into the release site, taking into account pipeline and location-specific information. *Id.*

The drain down volume calculation and the application of the 28% factor was derived from a review of the 1993 California Fire Marshall Study and the 2000 Longhorn Valve Study. Additionally, in order to substantiate the application of the 28% factor, historical refined product release volumes were analyzed and compared to the theoretical spill volumes as determined by the calculation method. Magellan analyzed ten years of applicable historical Refined Products mainline releases which constituted 62 releases from 1994 to 2003.⁶

According to Magellan, its model was based initially upon the California and Longhorn studies and further supported by historical spill data drawn from its own system. Its own internal data was used to verify the assumption that the total amount of product potentially spilled from any particular pipe segment was only 28% of the maximum potential drain-down volume. The company noted that all 62 of the historical Magellan releases studied (with one notable exception) resulted in an actual spill volume that was less than the amount calculated using the methodology from the California study. Magellan argued that 64% of its own historical releases produced a spill volume of less than 10% of the amount initially predicted using the 28% drain-down factor. Therefore, Magellan claimed that its methodology was a conservative, technically justifiable, approach. It further asserted that not only was such a performance-based approach allowed under § 195.452(f)(1), it was actually encouraged since the regulation recognized the need to consider actual conditions and location-specific information.⁷

At the hearing, the OPS Southwest Region staff rejected Magellan's Overland Spread Analysis for several reasons. First, OPS contended that the model was *not* properly based upon location- and pipeline-specific information from Magellan's own system. OPS acknowledged that the agency's integrity management regulations are indeed performance-based and designed to provide operators with the flexibility to tailor their IMPs to the unique conditions presented by their *own* particular systems. Operators are encouraged to design their own methodologies, taking into account the unique circumstances of their particular systems, including the potential for excavation damage, the results of other inspections required by the pipeline safety regulations, cathodic protection survey results, topography, roadway crossings, etc.⁸ However, as noted during the notice-and-comment period for the hazardous liquid integrity management

⁶ Brief, at 8. Respondent did not submit formal copies of either study for the written record. However, it is apparent that one of the studies referred to is a paper entitled, "Hazardous Liquid Pipeline Risk Assessment," and was conducted by EDM Services for the California State Fire Marshal. This 1993 study assessed 10 years of pipeline failure and leak data in California. Respondent did not provide information regarding the 2000 Longhorn Valve study.

⁷ In support of its position, Magellan quoted from the Preamble of the final IMP rule: "The proposed rule used primarily performance-based language to allow operators to use pipeline- and location-specific information to determine the necessary integrity management practices." See, Pipeline Safety: Pipeline Integrity Management in High Consequence Areas (Hazardous Liquid Operators With 500 or More Miles of Pipeline) Part III, 65 FR 75378 (December 1, 2000).

⁸ *Id.* at 75395.

rulemaking process, an operator's assessment methodology for designating "could affect" pipe segments must still be technically defensible.⁹

In this case, Magellan *initially* calculated the volume of product that would drain out in the event that the line ruptured in a specific location, considering the specific commodity, pipeline specifications, and the effects of the local terrain. However, it then *reduced* this maximum volume by multiplying it by a factor of 28%, thus greatly reducing the potential areas affected by a spill. The OPS Southwest Region rejected the use of this borrowed 28% factor, stating that it could not be applied universally to other pipeline systems, including Magellan's.

The agency cited several reasons. First, the 28% factor was based upon historical accident data for specific pipelines in California between 1981 and 1990. Second, specific topographical, pipeline configuration, and operational differences existed between the pipelines studied in California and those operated by Magellan. Third, the California study utilized the 28% factor as part of a totally different type of risk analysis (i.e., a "cost-benefit" analysis) than the one involved in PHMSA's integrity management program (i.e., a "could-affect" analysis).¹⁰ Fourth, applying the 28% factor from the California study, which had already accounted for topography, further reduced the maximum drain-down volume in a manner that lacked an adequate technical basis.

OPS also contended that Magellan's use of its own historical spill data did *not* serve to validate the use of the 28% drain-down factor plus 15 minutes of pipeline flow rate. Most of the leaks Magellan included in its analysis were relatively small. The company acknowledged that one release in 1999 on its El Dorado to Walthena JCT line segment resulted in a spill volume that far exceeded Magellan's drain-down volume calculation method. In fact, the evidence shows that it exceeded the calculated spread distance by almost 300 percent.¹¹

While Magellan contended in its Brief that this one major leak was an anomaly, the OPS staff argued that the purpose of § 195.452(f)(1) is to determine whether HCAs *could be affected* by a spill, not what the normal or historical effects of most spills *had been* in the past. At the hearing, when OPS staff asked Respondent if this one major leak was the worst case possible, Respondent replied that it was not. Therefore, OPS argued, Magellan should not be relying on the 28% drain-down factor when it was clear that a spill could exceed the spread area assumed under its model.

⁹ *Id.* at 75385. PHMSA has also stated in guidance materials that an operator's methodology should be developed with "sound engineering judgment with a reasonable amount of conservatism to account for uncertainties in the assumptions and calculation methods used in the analysis." See, *Integrity Management Rule Frequently Asked Questions (FAQ)* (3.4), (February 18, 2003), available at Pipeline & Hazardous Materials Safety Administration, OPS Integrity Management, http://primis.phmsa.dot.gov/iim/docs/faq_text.htm.

¹⁰ Appendix C to Part 195 provides guidance on factors that operators should consider in determining whether a pipeline "could affect" an HCA. These factors are quite different than the type of data used in a cost-benefit analysis.

¹¹ Brief, at 10.

Findings:

Upon review of all of the evidence and the arguments of the parties, I find that Magellan's use of its Overland Spread Analysis to identify pipe segments that "could affect" HCAs was not technically justifiable. The fact that one of the releases in Magellan's historical study exceeded the predicted spill volume by roughly 300% is significant. It shows that Magellan's methodology did not fully take into account what could happen if a portion of Magellan's line ruptured in close proximity to an HCA. I further find that the 28% drain-down factor used in the model did not adequately take into account the specific conditions of Magellan's own line, including the topography of the area. Accordingly, I find that Magellan violated 49 C.F.R. § 195.452(f)(1) by failing to include in its IMP an adequate process for identifying which of the company's pipeline segments could affect an HCA.

Item 2B: The Notice alleged that Respondent violated 49 C.F.R. §§ 195.452(e)(1), which states:

§ 195.452 Pipeline integrity management in high consequence areas.

(a)

(e) *What are the risk factors for establishing an assessment schedule (for both the baseline and continual integrity assessments)?*

(1) An operator must establish an integrity assessment schedule that prioritizes pipeline segments for assessment (see paragraphs (d)(1) and (j)(3) of this section). An operator must base the assessment schedule on all risk factors that reflect the risk conditions on the pipeline segment. The factors an operator must consider include, but are not limited to:

(i) Results of the previous integrity assessment, defect type and size that the assessment method can detect, and defect growth rate;

(ii) Pipe size, material, manufacturing information, coating type and condition, and seam type;

(iii) Leak history, repair history and cathodic protection history;

(iv) Product transported;

(v) Operating stress level;

(vi) Existing or projected activities in the area;

(vii) Local environmental factors that could affect the pipeline (*e.g.*, corrosivity of soil, subsidence, climatic);

(viii) Geo-technical hazards; and

(ix) Physical support of the segment such as by a cable suspension bridge.

The Notice alleged that Respondent violated 49 C.F.R. §§ 195.452(e)(1) by failing to establish an integrity assessment schedule that was based on all risk factors reflecting the conditions of each "could affect" pipeline segment. Specifically, OPS alleged that the relative risk scores in Magellan's model did not adequately reflect the likelihood of threats and actual failures experienced by Respondent, including such risk factors as cathodic protection, coating condition, fatigue, one-call, and hazard identification.

The OPS inspector noted in his Violation Report that Magellan's risk model did not effectively utilize these risk factors because it was too heavily weighted toward the *consequences* of accidents and not enough toward their *likelihood*. This meant that the model could therefore be masking many likelihood-related relative risk factors.

Since the integrity management program set forth in § 195.452 applies only to those pipeline segments that "could affect" HCAs and there are a limited number of different types of HCAs, it is common to have dissimilar segments of pipeline within or close to similarly categorized HCAs. In such cases, the differences in associated relative risks should be primarily based on likelihood, since the consequences are similar.

The Magellan risk model was comprised of four indexes based on failure modes (likelihood) and a leak impact factor (consequences).¹² OPS alleged that many of the factors within Respondent's risk model were weighted so that important differences in the likelihood of pipeline failure were not reflected in the risk scores. For example, several piggable pipe sections scheduled for assessment in 2007 had high-risk scores and should have been assessed prior to September 30, 2004, but were not. Respondent's explanation for not having assessed these pipelines was that these lines were of less concern because they had received an assessment in 2000, yet their risk scores did not reflect this lower risk. Under Magellan's scoring system, a completed internal inspection carried a maximum score of only 7, out of a total of 400, on Magellan's relative likelihood of failure index. Given the significant risk reduction that can be achieved through the completion of an internal inspection tool run, OPS contended that this weighting appeared to be inaccurate.

The Violation Report further noted that Magellan had utilized several risk factors taken directly from the popular text on integrity management, *Pipeline Risk Management Manual, First Edition* (Muhlbauer, 1992), but that the company had failed to use the factors effectively in developing its own model. At the hearing, OPS cited four specific risk factors used by Muhlbauer that Magellan had allegedly misapplied:

Cathodic Protection - The Violation Report alleged that Magellan's risk model did not utilize the corrosion risk factor effectively because it was set at a constant (lowest risk) value instead of being adjusted to take into account differing conditions for various segments. Thus, the OPS inspection team questioned its usefulness as a risk factor. According to the Muhlbauer model, an operator should consider varying conditions and historical data (e.g., anode bed depletion, changing conditions, and equipment malfunctions) and make appropriate adjustments to this risk factor, depending upon the unique characteristics of different segments.

In response, Magellan stated that each of the indexes in its model took into account the current protections on the line. For example, in developing the corrosion index, Respondent considered that its corrosion control program was designed to manage and mitigate comprehensive corrosion risks such as anode bed depletion, equipment malfunctions, and changing conditions. In addition, the company's Additional Preventive and Mitigation Analysis evaluated the effectiveness of the company's overall corrosion control program and identified other potential

¹² Magellan's Risk Model Indexes were third party, corrosion, design, and incorrect operations. The leak impact factor considered product type, dispersion factor, population, environmental, and leak history. Brief, at 21.

“enhancements” that were subsequently evaluated to enhance its cathodic protection system.¹³ Therefore, Magellan stated that a constant risk factor was appropriate since its cathodic protection system has always met compliance standards.

Coating Type and Condition – The Violation Report alleged that Magellan’s risk model did not utilize the coating type and condition risk factor properly because it only considered coating type and did not take coating *condition* into account at all, as required by § 195.452(e)(1)(ii). For example, a proper model should consider differing conditions in various segments, such as disbondment and incorrect coating application during installation. Muhlbauer recommends rating the quality of the coating, the quality of the application, the quality of the inspection, and the quality of the defect correction program, with each being rated as “good,” “fair,” “poor,” or “absent.” In response, Magellan argued that it utilized only the coating type since information on the coating condition of its pipe segments was unreliable.

Fatigue - The Violation Report alleged that Magellan’s risk model did not effectively utilize the fatigue risk factor because it simply considered whether or not a pressure cycle analysis had been performed on a particular pipe segment. A pressure cycle analysis, however, is only performed on low-frequency electric resistance welded (LF-ERW) pipe. Since Magellan used the default factor of the highest risk for all segments that had not had a pressure cycle analysis, OPS noted that this could produce the anomalous result that LF-ERW segments with high-pressure cycles might receive a lower risk score than non-LF-ERW segments that had not undergone a pressure cycle analysis. In addition, OPS questioned whether Magellan’s approach was sufficiently sophisticated to determine whether a particular segment was susceptible to fatigue. Muhlbauer, for example, recommends a more elaborate fatigue analysis that does more than simply note whether or not a pressure cycle analysis had been performed.

In response, Magellan stated that its fatigue factor was derived by comparing the percent of Maximum Operating Pressure (MOP) at which the pipeline operated to the number of lifetime cycles. Its model assigned a default number of lifetime cycles for segments that had not undergone a pressure cycle analysis, with the score derived by comparing the number of lifetime cycles to the percentage of MOP.

One-Call¹⁴ - The Violation Report alleged that Magellan’s risk model did not effectively utilize the “One-Call” risk factor because it simply noted whether a One-Call system was mandated by the state and whether it was widely used. OPS noted that such an approach failed to address potential or “projected activities in the area,” as required by § 195.452(e)(1)(vi). This is generally done by reviewing the level of third-party or construction activities in an area, as well as measuring the frequency of one-call activity in the vicinity. Such information is important since third-party activity near pipelines is a significant risk factor for the likelihood of failures.

Respondent contended at the hearing that its “Activity Level” risk factor did properly account for third-party activity near the line. It was calculated on the basis of population levels and foreign line crossings; Respondent assigned a score through an algorithm using population density and the number of foreign utility crossings in the area. In contrast, Muhlbauer recommends a

¹³ Brief, at 4.

¹⁴ This factor is referred to in § 195.452(e)(1)(vi) as “existing or projected activities in the area.”

methodology that includes population density, utility crossings, construction activity and volume of one-calls or reconnaissance reports near each segment.

Hazard Identification - The Violation Report alleged that Magellan's risk model did not effectively utilize the hazard identification risk factor because all segments were assigned the same score of "Average" instead of assigning different scores based upon relative risk. OPS noted that under Magellan's model, in order for a particular segment to receive an "Above Average" or "Excellent" score, a thorough hazard analysis or Haz-op would have to be performed and a hydraulic study completed. Magellan had only completed the hydraulic analysis. Magellan stated that it had assigned an "Average" score to all segments during the development of its BAP since it had not completed the necessary hazard analyses. In addition, it claimed that it used its Additional Preventive and Mitigative Measures process as a type of hazard analysis.¹⁵ In contrast, Muhlbauer recommends that an operator clearly understand the nature of *all* potential hazards, including possible failures, prior to employing the appropriate risk reduction measures.

Findings:

Upon review of all of the evidence and the arguments of the parties, I find that Respondent violated 49 C.F.R. § 195.452(e)(1) by failing to establish an integrity assessment schedule based on all of the risk factors that reflected the risk conditions on each "could affect" pipeline segment. Section 195.452(e)(1) lists nine factors that must be considered in establishing a schedule but leaves it up to the operator to determine what other factors need to be considered, how to assign risk scores to each factor and pipe segment, and how to prioritize assessments.

Magellan failed to do this. The company's scoring system did not adequately reflect the actual risks posed by each pipe segment because it was too heavily weighted toward spill consequences and not enough toward the likelihood of accidents. In addition, Magellan failed to provide adequate documentation to validate or justify its weighting of the various risk factors used in its model. Finally, the record shows that Magellan took certain risk factors directly from the Muhlbauer model but failed to consider them in a fashion that was consistent with the Muhlbauer approach or that was sufficient to account for actual differences in risk for each pipeline segment. In short, Magellan had the beginnings of a proper risk model but not enough detail to support an adequate risk-based assessment schedule.

Accordingly, I find that Respondent violated § 195.452(e)(1) by failing to establish an integrity assessment schedule based upon all risk factors that reflect the risk conditions on each pipeline segment that "could affect" HCAs, including the nine factors set forth in said regulation.

These findings of violation will be considered prior offenses in any subsequent enforcement action taken against Respondent.

¹⁵ Brief, at 37.

WITHDRAWAL OF ALLEGATION

Item 2A: The Notice alleged that Respondent violated 49 C.F.R. §§ 195.452(d)(1), which states:

§ 195.452 Pipeline integrity management in high consequence areas.

(a)

(d) *When must operators complete baseline assessments?*

Operators must complete baseline assessments as follows:

(1) *Time periods.* Complete assessments before the following deadlines:

If the pipeline is:	Then complete baseline assessments not later than the following date according to a schedule that prioritizes assessments:	And assess at least 50 percent of the line pipe on an expedited basis, beginning with the highest risk pipe, not later than:
Category 1	March 31, 2008	September 30, 2004.
Category 2	February 17, 2009	August 16, 2005.
Category 3	Date the pipeline begins operation	Not applicable.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(d)(1) by failing to follow its own procedure for establishing a Baseline Assessment Plan (BAP) schedule. Specifically, the Notice alleged that Magellan had not followed its procedures for assessing the highest-risk segments first. It stated that “[l]ess than half (47%) of the top 50% highest risk segments had received a baseline assessment at the time of the inspection.”¹⁶ In its Response, the company argued that it had indeed followed its procedures by assigning a risk ranking score to each pipeline segment and by ranking the sections in order from highest to lowest risk. Magellan acknowledged that certain conditions caused the company to deviate from the assessment schedule but these types of modifications were provided for in Section 3.4 of its procedures. Magellan also pointed to certain OPS regulatory guidance that acknowledged practical considerations could cause operators to assess some lower-risk segments before higher-risk ones.¹⁷

Findings:

Upon consideration of all of the evidence and the arguments of the parties, I find that this allegation is not supported by the evidence and is hereby withdrawn. Magellan submitted copies of its procedures and it appears that the company did follow them by assigning a risk rank to

¹⁶ Notice, at 3. The Violation Report quoted from Section 3 of Magellan’s IMP, which states that “[b]y using the risk-ranked order of sections, MMP will specify pipeline sections that must be assessed each year (beginning with year one) to satisfy the requirements of assessing at least one half of the HCAs in the first three and one half years (September 30, 2004), and the remainder within the next three and one half years (March 31, 2008).” Violation Report, at 3.

¹⁷ Brief, at 3. See, *Integrity Management Rule FAQ 4.14*, (February 18, 2003), available at Pipeline & Hazardous Materials Safety Administration, OPS Integrity Management, http://primis.phmsa.dot.gov/iim/docsf/faq_text.htm.

each segment and then assessing it in accordance with the company's own schedule. Further, Magellan's procedures provided for modification of the initial assessment schedule on the basis of ILI tool availability, operational readiness, workforce availability, previous integrity testing history, and other factors.

Although the Notice focused on Magellan's procedures and did not refer specifically to Magellan's mileage assessment obligation under § 192.452(d), it is important to understand the regulation because differing interpretations presented by OPS and the company led to their disagreement over whether Magellan had complied with its own procedures. Under §192.452(d), Magellan was required 1) to assess at least 50% of the line pipe on an expedited basis, and 2) to begin with the highest risk pipe. According to the data Magellan provided, the company had 2976 miles of "could affect" HCA pipe in its system. Therefore, by September 30, 2004, Magellan was required to have assessed at least 50%, or 1488 miles, of such pipe. Magellan exceeded this requirement by assessing 63%, or 1865 miles, by the deadline. Magellan was also required to start its assessments "with the highest-risk pipe" first, but not to have completed any particular percentage of highest-risk pipe by the deadline.

In support of this interpretation, the OPS guidance specifically states:

The rule requires that baseline assessments must have been completed on at least 50 percent of the category 1 line pipe that can affect HCAs by September 30, 2004, (or August 16, 2005 for category 2 pipe), starting with the highest risk pipe. Although PHMSA Pipeline Safety expects operators to have concentrated on the highest risk pipe, some segments not among the highest risk pipe may have been counted towards the 50 percent requirement. PHMSA Pipeline Safety recognizes that practical issues associated with scheduling and conducting assessments may have led to some lower risk pipe being assessed prior to high-risk pipe. For example, during a pig run to address a high risk segment, an operator may also have assessed another lower risk segment that happens to be located in the same section of pipe that was being inspected. This additional segment may be credited against the September 30, 2004, (or August 16, 2005) deadline. PHMSA Pipeline Safety inspections will review how an operator has prioritized segments for assessment to assure that appropriate emphasis is being placed on the highest-risk pipe." (emphasis in original)¹⁸

The passage quoted above does not minimize the need to address higher-risk pipeline segments as soon as practicable. Instead, it merely recognizes that some lower-risk segments will naturally be assessed along with higher-risk ones. In accepting that lower-risk segments might be assessed as part of the initial assessment, the FAQ continues to emphasize the need to place a priority on assessing higher-risk segments at the beginning of the process, not the end.

¹⁸ See, *Integrity Management Rule FAQ 4.14*, (February 18, 2003), available at Pipeline & Hazardous Materials Safety Administration, OPS Integrity Management, http://primis.phmsa.dot.gov/iim/docsf/faq_text.htm

In its Response and Brief, Magellan mischaracterized the meaning of 49 C.F.R. § 195.452(d) and the guidance quoted above. Magellan stated:

The unambiguous requirement under 49 CFR § 195.452(d)(1) requires only that 50% of the line pipe on an expedited basis be completed no later than September 30, 2004.... There is no regulatory requirement that **50% of the highest risk segments** be completed by September 30, 2004. In fact, PHMSA, in its regulatory guidance, specifically recognized that other lesser risk segments would get completed as part of the practical consideration of doing the baseline assessment and that those lesser risk segments would count towards the 50 percent completion requirement. (emphasis in original)¹⁹

In its Brief, Magellan chose to ignore a key phrase in the chart contained in § 195.452(d)(1), namely, “beginning with the highest risk pipe.” That phrase makes clear that the intent of § 195.452(d)(1) is that operators must prioritize all of their pipe segments that “could affect” HCAs according to the risks that they pose and then to assess them on an expedited basis, beginning with the highest-risk pipe first. While there is no exact percentage of highest-risk pipe that must be assessed by the deadline, the regulation does require a showing that the operator make a deliberate effort to assess its HCA pipe in a manner that addressed the highest risk pipe first. In this case, although Magellan may have misinterpreted the regulation and guidance, it still met the requirement that it should place an emphasis on the highest-risk pipe. It accomplished this by assessing more than the minimum amount of pipe it was required to assess by the September 30, 2004 deadline. The company assessed 1865 miles of pipe, rather than the minimum of 1488 miles that was required and 890 of those miles consisted of high-risk pipe. Therefore, 60% of the total number of miles the company was required to inspect prior to September 30, 2004 consisted of high-risk pipe.

Based upon the foregoing, I do not believe there is sufficient evidence to show that Magellan violated either the letter or the spirit of its own procedures for assessing “could affect” HCA pipe in accordance with a risk-based schedule. Accordingly, Item 2A is hereby withdrawn.

ASSESSMENT OF PENALTY

Under 49 U.S.C. § 60122, Respondent is subject to a civil penalty not to exceed \$100,000 per violation for each day of the violation, up to a maximum of \$1,000,000 for any related series of violations.

49 U.S.C. § 60122 and 49 C.F.R. § 190.225 require that, in determining the amount of the civil penalty, I consider the following criteria: the nature, circumstances, and gravity of the violation, including adverse impact on the environment; the degree of Respondent’s culpability; the history of Respondent’s prior offenses; the Respondent’s ability to pay the penalty and any effect that the penalty may have on its ability to continue doing business; and the good faith of Respondent in attempting to comply with the pipeline safety regulations. In addition, I may consider the economic benefit gained from the violation without any reduction because of subsequent

¹⁹ Brief, at 2.

damages, and such other matters as justice may require. The Notice proposed a total civil penalty of \$215,000 for the violations.

The Notice proposed a civil penalty of \$80,000 for violation of 49 C.F.R. § 195.452(f)(1) (Item 1) and a civil penalty of \$135,000 for violations of 49 C.F.R. §§ 195.452(d)(1) and (e)(1) (Items 2A and 2B).

Respondent requested that PHMSA consider reducing the amount of the proposed penalties for Items 1 and 2 because: (1) Magellan's process for identifying pipe segments that "could affect" HCAs was "derived from various industry studies and validated through the specific analysis of 10 years of release data on [the] pipeline system," and that such methodology was technically justifiable; (2) Magellan acted in good faith in attempting to achieve compliance, as evidenced by its expedited schedule for completing all integrity assessments ahead of the regulatory deadlines; and (3) PHMSA's failure to recognize Magellan's good faith efforts could have "a chilling public policy effect" on other operators striving to achieve full compliance.²⁰

As for Item 1, I have already found that Magellan's Overland Spread Analysis was not technically justifiable. Respondent's use of this methodology undermined the company's entire IMP process and could have resulted in a failure directly impacting an HCA. In fact, Magellan's analysis could significantly reduce the number of pipeline segments deemed capable of affecting HCAs and the number miles that were subject to increased scrutiny under the company's IMP.

As stated above, Item 2A is withdrawn. Therefore, the associated civil penalty of \$67,500 is also withdrawn.

As for Item 2B, PHMSA recognizes and appreciates Respondent's efforts to assess all of its pipe segments that "could affect" HCAs, ahead of the regulatory deadlines. However, the company's failure to utilize effectively the risk factors in its risk model weakened the reliability of its IMP program. Risk scores are the foundation of an IMP program and are crucial to predicting and avoiding pipeline ruptures and incidents in HCAs.

Contrary to Respondent's argument that upholding the proposed penalties would have a "chilling public policy effect" on other operators, I believe the opposite is true. If PHMSA were to allow operators to adopt flawed engineering models with impunity, it would suggest that the agency does not take seriously its commitment to a rigorous technical basis for its performance-based standards.

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$80,000 for the violation of 49 C.F.R. § 195.452(f)(1) (Notice Item 1) and a civil penalty of \$67,500 for the violation of § 195.452(e)(1)(Notice Item 2B), for a total civil penalty of **\$147,500**.

Payment of the civil penalty must be made within 20 days of service. Federal regulations (49 C.F.R. § 89.21(b)(3)) require this payment be made by wire transfer, through the Federal Reserve Communications System (Fedwire), to the account of the U.S. Treasury. Detailed instructions are contained in the enclosure. Questions concerning wire transfers should be

²⁰ Brief, at 4-5.

directed to: Financial Operations Division (AMZ-341), Federal Aviation Administration, Mike Monroney Aeronautical Center, P.O. Box 269039, Oklahoma City, OK 73125; (405) 954-8893.

Failure to pay the \$147,500 civil penalty will result in accrual of interest at the current annual rate in accordance with 31 U.S.C. § 3717, 31 C.F.R. § 901.9 and 49 C.F.R. § 89.23. Pursuant to those same authorities, a late penalty charge of six percent (6%) per annum will be charged if payment is not made within 110 days of service. Furthermore, failure to pay the civil penalty may result in referral of the matter to the Attorney General for appropriate action in a United States District Court.

COMPLIANCE ORDER

The Notice proposed a Compliance Order with respect to Items 1 and 2 in the Notice. Under 49 U.S.C. § 60118(a), each person who engages in the transportation of hazardous liquids or who owns or operates a pipeline facility is required to comply with the applicable safety standards established under Chapter 601. Pursuant to the authority of 49 U.S.C. § 60118(b) and 49 C.F.R. § 190.217, Respondent is ordered to take the following actions to ensure compliance with the pipeline safety regulations applicable to its operations:

1. With regard to Item 1 of the Notice, modify its process to use a technically justified methodology to estimate release volumes. The data used must be specific to Respondent's pipelines and surrounding terrain;
2. With regard to Item 1 of the Notice, identify HCAs in accordance with the process developed in Item 1 above. Newly identified pipeline segments that could affect HCAs must be added to Respondent's program, along with identification of any anomalies that must be remediated per the repair criteria in 49 C.F.R. § 195.452(h);
3. With regard to Item 2B of the Notice, modify Respondent's risk model to appropriately account for the threats to the integrity of its pipelines. Respondent must consider the relative likelihood of all required threats listed in 49 C.F.R. § 195.452, as well as additional threats identified by Respondent in its risk analysis and segment relative risk ranking. The relative weightings applied to risk factors must be re-evaluated to ensure that the risk analysis adequately reflects the risk conditions on the pipeline segments and appropriately balances relative likelihood and consequence considerations;
4. Compare the new risk ranking for all segments with the list of assessed segments to ascertain the status of the baseline assessment program, and identify the higher relative risk pipeline segments for which integrity assessments should have been performed by September 30, 2004, but that have not been performed to date, if any;
5. Within 60 days of receipt of the Final Order, provide the revised risk model and the anticipated assessment completion dates for the high risk segments for which assessments were not completed by September 30, 2004, as set forth above, to the Director, Southwest Region, Pipeline and Hazardous Materials Safety Administration, 8701 South Gessner, Suite 1110, Houston, Texas 77074. Please

refer to CPF No. 4-2006-5020 on any correspondence or communication in these matters.


- 6. Maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Director, Southwest Region, PHMSA. Costs shall 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.

The Director, Southwest Region, PHMSA, may grant an extension of time to comply with any of the required items upon a written request timely submitted by Respondent demonstrating good cause for an extension.

Failure to comply with this Order may result in the administrative assessment of civil penalties not to exceed \$100,000 for each violation for each day the violation continues or in referral to the Attorney General for appropriate relief in a district court of the United States.

Under 49 C.F.R. § 190.215, Respondent has a right to submit a Petition for Reconsideration of this Final Order. The petition must be received within 20 days of Respondent's receipt of this

Final Order and must contain a brief statement of the issue(s). The filing of the petition automatically stays the payment of any civil penalty assessed. All other terms of the Order, including any required corrective action and amendment of procedures, remain in full effect unless the Associate Administrator, upon request, grants a stay. The terms and conditions of this Final Order shall be effective upon receipt.



 Jeffrey D. Wiese
 Associate Administrator
 for Pipeline Safety

7/9/09
 Date Issued