



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave., SE
Washington, DC 20590

NOV 2 2011

Mr. Michael E. McMahon
Senior Vice President and General Counsel
Gulf South Pipeline Company, LP
9 East Greenway Plaza
Suite 2800
Houston, TX 77046

Re: CPF No. 4-2007-1003

Dear Mr. McMahon:

Enclosed please find the Final Order issued in the above-referenced case. It makes findings of violation, assesses a reduced civil penalty of \$85,800, and specifies certain actions that need to be taken by Gulf South Pipeline Company to comply with the pipeline safety regulations. 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 have been completed, as determined by the Director, Southwest Region, this enforcement action will be closed. Your receipt of the Final Order constitutes service of that document under 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,

for: [Signature]
Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

Enclosure

cc: Mr. Alan Mayberry, Deputy Associate Administrator for Field Operations, Pipeline Safety
Mr. R.M. Seeley, P.E. Director, Southwest Region, PHMSA

CERTIFIED MAIL – RETURN RECEIPT REQUESTED [71791000164202821001]

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

In the Matter of

Gulf South Pipeline Company, LP,

Respondent.

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CPF No. 4-2007-1003

FINAL ORDER

During the weeks of January 23-27 and February 6-10, 2006, pursuant to 49 U.S.C. § 60117, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), conducted an on-site pipeline safety inspection of the facilities and records of Gulf South Pipeline Company, LP (Gulf South or Respondent), in Houston, Texas.¹ Gulf South operates an interstate gas pipeline system consisting of approximately 7,500 miles of pipe running from southern Texas to western Florida.

As a result of the inspection, the Director, Southwest Region, OPS (Director), issued to Respondent, by letter dated March 29, 2007, a Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order (Notice). In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Respondent had violated 49 C.F.R. §§ 192.605, 192.713, 192.909, 192.911, 192.915, 192.917, 192.919, 192.921, 192.933, 192.935, and 192.937 and proposed assessing a civil penalty of \$183,000 for the alleged violations. The Notice also proposed ordering Respondent to take certain measures to correct the alleged violations.

Gulf South responded to the Notice by letter dated April 26, 2007 (Response), contesting all of the allegations and requesting a hearing, which was subsequently held on October 10, 2007, in the PHMSA Southwest Region Office, with an attorney from the Office of Chief Counsel, PHMSA, presiding. At the hearing, Respondent was represented by counsel. On November 8, 2007, Respondent provided a summary of the evidence presented at the hearing and additional legal arguments (Supplemental Response). As part of its Supplemental Response, Gulf South submitted a separate response for each probable violation, with each one being entitled "Response to Notice of Probable Violation" (Brief, Supplemental Response or Response to Notice of Probable Violation).

¹ Gulf South is a wholly-owned subsidiary of Boardwalk Partners, LP. Gulf South Pipeline Company, LP website, available at <http://www.gulfsouthpl.com/> (last accessed May 10, 2011).

As a general matter, in its Supplemental Response, Gulf South argued that 49 U.S.C. § 60109(c)(9)(A)(iii) only permits PHMSA to act under § 60109(a)(2) to order an operator to revise its integrity management program with a Notice of Amendment type of enforcement action (i.e., to require operators to amend their plans and procedures). Respondent further argued that this statute precluded or did not give PHMSA the authority to act under any other section of Chapter 601 to enforce integrity management program regulations by issuing compliance orders and civil penalties.

With the enactment of the Pipeline Safety Improvement Act of 2002 (PSIA), the U.S. Congress directed the Department of Transportation, PHMSA, to establish and issue regulations detailing standards for the implementation of an integrity management program.

The authority set forth in §§ 60119 and 60122 to enforce pipeline safety standards, laws and regulations through compliance orders and civil penalties has been codified since 1979 and nothing in PSIA or the Pipeline Inspection, Protection, Enforcement and Safety Act of 2006 (PIPES Act) affected this authority.

Any suggestion that, prior to the PIPES Act, § 60109(c)(9)(A)(iii) limited the agency's authority with respect to operator conduct and to only require an operator to amend an inadequate or noncompliant integrity management program is therefore incorrect.

Considering the authority established in §§ 60118 and 60122; the legislative history of both PSIA of 2002 and the PIPES Act, including H.R. Rep. No. 109-717, Part 2, § 2(g), at 16 (Dec. 5, 2006); and the legal issues presented, I find that PHMSA had the authority and did properly exercise the full spectrum of enforcement tools upon a determination that a risk analysis or integrity management program was inadequate or noncompliant.

FINDINGS OF VIOLATION

The Notice alleged that Respondent violated 49 C.F.R. Part 192, as follows:

Item 1: The Notice alleged that Respondent violated 49 C.F.R. §§ 192.605 and 192.713, which state, in relevant part:

§ 192.605 Procedural manual for operations, maintenance, and emergencies.

(a) *General.* Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

(b) *Maintenance and normal operations.* The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.

(1) Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and subpart M of this part....

§ 192.713 Transmission lines: Permanent field repair of imperfections and damages.

(a) Each imperfection or damage that impairs the serviceability of pipe in a steel transmission line operating at or above 40 percent of SMYS must be—

- (1) Removed by cutting out and replacing a cylindrical piece of pipe; or
- (2) Repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe.

(b) Operating pressure must be at a safe level during repair operations.

A. Item 1A of the Notice alleged that Respondent violated 49 C.F.R. § 192.605 by failing to follow for each pipeline the company's own written procedures for conducting operations and maintenance activities. Specifically, the Notice alleged that Respondent recoated a section of pipe, on Pipeline # 1-129 Agua Dulce at SS 123+13, that exhibited localized corrosion pitting in the seam and girth welds, in violation of Section 10.8, *Repair of Leaks and Defective Pipe*, of its own Operations and Maintenance Manual (O & M Manual). PHMSA alleged that the O & M Manual required a Type B Sleeve be used to repair selective corrosion on Factor 20 electric resistance welded (ERW) pipe. Respondent's dig sheet listed three metal loss areas, at a maximum depth of .130 and a maximum length of 2 inches.²

At the hearing and in its Supplemental Response, Gulf South gave three reasons why the cited section of its O & M Manual was not applicable to the section of pipe in question. First, Respondent challenged PHMSA's characterization of the corrosion pitting as "defects" by arguing that the pitting was an "imperfection" or "anomaly," not a "defect." To support its argument, Respondent cited an ASME B31G strength calculation and certain other sources, which, the company argued, indicated that the depth of the anomalies at issue did not impair the ability of the pipeline to operate safely up to a pressure of 994 psig.³ Secondly, Respondent cited the NACE Standard RPO 102-2002 (NACE Standard) definition of "defect," which is "an anomaly for which an analysis indicates that the pipe is approaching failure as the nominal hoop stress approaches the specified minimum yield strength of the pipe material."⁴

Respondent also included documentation showing that the pipe was flash-welded, not ERW, as alleged by PHMSA. Finally, Respondent argued that because the corrosion in the seam was not deeper than the corrosion in the adjacent body of the pipe, the corrosion on this line pipe was not preferential and was not selective seam corrosion. Respondent cited a Kiefner and Associate's

² "Gulf South – Bell Hole Inspection Form," September 24, 2003, as incorporated into the Pipeline Safety Violation Report, March 29, 2007 (Violation Report), Exhibit A, at 3.

³ The pipeline had a maximum allowable operating pressure (MAOP) of 609.

⁴ NACE Standard RPO 102-2002, Section 2: Definitions.

grooving ratio of less than 1 and that only grooving ratios greater than 1.4 were indicative of selective seam corrosion.⁵

After considering all the evidence, I agree that Gulf South did not violate its own O & M Manual in assessing and repairing the corrosion in question. Accordingly, I order that Item 1A be withdrawn.

B. As in Item 1A above, Item 1B of the Notice alleged that Respondent violated 49 C.F.R. § 192.605 by failing to follow its manual of written procedures for conducting operations and maintenance activities. Specifically, the Notice alleged that Gulf South improperly applied a PermaWrap composite sleeve to SS 286+05 of Pipeline #1 -129 Agua Dulce that exhibited localized and general corrosion pitting, in violation of its own O & M Manual, which required repair of the corrosion with a Type B sleeve.⁶

At the hearing and in its Supplemental Response, Gulf South raised similar arguments as in Item 1A above to support its contention that the O & M Manual and current industry standards did not require repair with a Type B Sleeve, normally used for the repair of “defects” that were the result of “selective corrosion” in the “weld zone.”⁷ Respondent argued that the corrosion at issue here was (1) generalized or local, not “selective corrosion” in the “weld zone,” and (2) an anomaly, not a defect.

In support of its contention that the corrosion was generalized and not selective seam corrosion, the company pointed to language in the Notice itself which described the corrosion as “localized and general,” yet alleged nevertheless that Respondent was required to use a “selective corrosion” repair method.

Respondent pointed out that the two terms describe two distinct conditions. The company cited an analysis by Kiefner and Associates, which found that the corrosion grooving ratio of the depth of corrosion at the weld line to the depth of corrosion outside the weld line was less than 1.0.⁸ This indicated that the corrosion did not favor the weld metal to the pipe metal, and therefore was not selective seam corrosion. PHMSA did not specify why it believed the corrosion at SS 286+05 had to be repaired using a method appropriate for selective seam corrosion.

In support of its contention that the corrosion at issue did not amount to a defect, Gulf South stated that the deepest penetration was less than 80%. Using the B31G strength calculation,

⁵ Kiefner and Associate’s April, 23, 2007 letter, “Review of Corrosion Anomalies Discovered Adjacent to the A.O. Smith Flash Weld Seam.”

⁶ PHMSA alleged that Respondent “did not repair the defects in accordance with their own O & M procedures,” but failed to list the specific section of the O & M Manual that Gulf South allegedly violated. I assume that it was the same section cited in Item 1A, i.e., Section 10.8, *Repair of Leaks and Defective Pipe, Table 2 – Repair Methods for Environmentally Caused Defects*.

⁷ Section 10.8, O & M Manual, *Repair of Leaks and Defective Pipe, Table 2 – Repair Methods for Environmentally Caused Defects*.

⁸ Kiefner & Associates, *supra*. Response to NOPV 1A and NOPV 1B, Table of Attachments.

Respondent determined a safe pressure of 694 psig and a burst pressure of 964 psig.⁹ Respondent also cited the NACE Standard definition of “defect” noted above to argue that a defect was “damage that impairs the serviceability of pipe.” Assuming the accuracy of Respondent’s calculations and the NACE definition, the corrosion at issue here did not amount to a defect.

PHMSA did not dispute Respondent’s calculations or the NACE definition of “defect.” Instead, PHMSA argued that Respondent’s repair of the pipe by applying a PermaWrap sleeve indicated that Respondent believed the anomaly did indeed “impair the serviceability of the pipe.” Therefore, PHMSA argued that if Respondent believed a repair was needed to restore the serviceability of the pipe, the company had to perform the repair in a manner vetted through the development of its O & M Manual.

I disagree. Respondent’s decision to repair an anomaly does not automatically render the anomaly a “defect” that impairs the serviceability of the pipe. If PHMSA believed that the condition did threaten the serviceability of the pipe, it should have challenged Respondent’s B31G strength calculation or cited some other factual support. In any event, PHMSA did not cite any provision of the O & M Manual that Respondent allegedly violated.

As for PHMSA’s contention that Respondent failed to make repairs “that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe,” PHMSA cited the American Gas Association’s 1994 “Pipeline Repair Manual.” Specifically, PHMSA referred to Table 1 of that document, which directs the use of Type B sleeves for “ERW Selective Corrosion” and “Girth weld defects.” This table, however, is not applicable to the corrosion anomaly cited here because the anomaly was not selective seam corrosion, did not constitute a “defect,” as defined by NACE, and was A.O. Smith line pipe, not ERW pipe.¹⁰ PHMSA did not dispute Respondent’s contention that Pipeline #1 -129 Agua Dulce was constructed of A.O. Smith pipe.

Given the above facts, I am not persuaded that Section 10.8 of Respondent’s O & M Procedures, *Repair of Leaks and Defective Pipe*, nor its 1994 Pipeline Repair Manual – Table 1, *Summary of Repair Applications*, controls the repair of the corrosion at issue here. Therefore, I find that Respondent was not required to apply a Type B Sleeve.

After considering all of the evidence, I find that the evidence does not support the allegation that Respondent failed to follow its own O & M Manual in assessing and repairing the corrosion in question. Accordingly, I order that Item 1B be withdrawn.

Item 2: The Notice alleged that Respondent violated 49 C.F.R. § 192.909(a), which states:

§ 192.909 How can an operator change its integrity management program?

(a) *General.* An operator must document any change to its program and the reasons for the change before implementing the change.

⁹ The MAOP for the pipeline was 609 psig.

¹⁰ *Id.*

Item 2 of the Notice alleged that Respondent violated 49 C.F.R. § 192.909(a) by failing to document changes to its Integrity Management Program, (IMP) before implementing such changes. Specifically, it alleged that Gulf South's Management of Change process (MOC Plan) lacked procedures and documentation requirements for "technical, physical, procedural, and organizational changes" in its IMP. In addition, the Notice alleged that Gulf South had actually implemented certain changes in its IMP but that such changes had not been performed and documented in accordance with the MOC Plan.

At the hearing and in its Supplemental Response, Gulf South cited its "Document History Log" to show that substantive changes to the IMP were indeed recorded. The log showed that the IMP was amended three times between December 1, 2004, and January 16, 2006. The three entries were as follows:

- 8-01-2005, "Reformat and overall edit. Incorporate feedback from outside consultants;"
- 12-01-2005, "Edits to sections 4 and 5 per Dynamic Risk;" and
- January 16, 2006, "Revised organizational charts in section 1. Revised HCA formula included to sections 2 and 3. Revisions to sections 4 and 5 per Dynamic risk and updated risk data. Additional mitigative measures added to section 8."

The Document History Log demonstrates that Respondent made certain changes to its IMP but did not provide any real information about the substance of those changes. Gulf South provided no information showing why the organizational charts needed revision or what actual revisions took place. It is also impossible to tell what changes were made to the High Consequence Area, (HCA) formula or how they might affect pipeline operations. No information was provided as to how sections 4 and 5 of the IMP were revised or what risk information was responsible for the changes. In short, Respondent did not "document any change to its program and the reasons for the change before implementing the change," as required by the regulation.

Respondent's failure to properly document changes to its IMP also violated the terms of its own MOC Plan. The diagram labeled "Process Flow" in the company's MOC Plan (Section 14 of its IMP) required the following actions to be documented and communicated prior to, during, and following any technical, physical, procedural, or organizational change in the IMP: requesting a change, impact of change, approval of change, plan/design change, training, implement change, and post change assessment.

The entries in Gulf South's Document History Log provided no substantive information about the changes that had been made to its IMP; they did not include any of the elements in Respondent's MOC Process Flow. It could be argued that the first two entries cited above were not "technical, physical, procedural, or organizational changes," but the third entry clearly reflected various technical, procedural, and organizational changes, including revising organizational charts, HCA formula, and sections 4 and 5 per updated dynamic risk data. Each of these changes should have had its own set of entries in the Document History Log. These entries should have documented the request for each change and its anticipated impact before final approval was given. Other entries should have included an approval of each change, how

the change would impact the IMP, the training required, how the change would be implemented, and how the change actually affected the system once it was in place.¹¹

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 192.909(a) by failing to document changes to its IMP before implementing such changes.

Item 3: The Notice alleged that Respondent violated 49 C.F.R. § 192.911(k), which states:

§ 192.911 What are the elements of an integrity management program?

An operator's initial integrity management program begins with a framework (*see* § 192.907) and evolves into a more detailed and comprehensive integrity management program, as information is gained and incorporated into the program. An operator must make continual improvements to its program. The initial program framework and subsequent program must, at minimum, contain the following elements. (When indicated, refer to ASME/ANSI B31.8S (incorporated by reference, *see* § 192.7) for more detailed information on the listed element.)

(a)

(k) A management of change process as outlined in ASME/ANSI B31.8S, section 11.

The Notice alleged that Respondent violated 49 C.F.R. § 192.911(k) by failing to have an IMP that contained an MOC Plan with specific procedural or documentation requirements to address changes to the IMP. PHMSA also contended that Respondent's IMP was deficient because it did not contain a procedure for updating the Baseline Assessment Plan (BAP) with new information that could affect prioritization or assessment method. In support of this allegation, PHMSA cited IMP subsections 4.7, *Ongoing Reevaluation of Risk*, and 5.1, *Baseline Assessment Plan*, alleging that both failed to specify detailed procedures describing how those sections were to be implemented. The two areas of alleged inadequacies with respect to the ASME Standard, subsections 11(a) and (b), cited in the Notice will be discussed below.

As noted in Item 2 above, ASME Standard, subsection 11(a), requires that "[m]anagement of change shall address technical, physical, procedural, and organizational changes to the system . . . [A] documented record of changes should be developed and maintained . . . [I]t should include the process and design information both before and after the changes were put into place." Respondent's "MOC Process Flow" chart, shown in Section 14 of the MOC Plan, uses similar wording as the list set forth in the ASME Standard, subsection 11(a). Although Respondent's process flow requires "documentation and communication" for each element, the process flow and the entire MOC Plan fail to dictate who within Gulf South is responsible for each process step. It also fails to provide any direction as to how the elements are to be implemented, how the processes are to be documented, or by whom they should be documented.

¹¹ As stated above, PHMSA also alleged that Gulf South's IMP did not include procedures and documentation requirements for the management of change process to "address technical, physical, procedural, and organizational changes" as stated in the IMP. These issues are more appropriately dealt with under 49 C.F.R. § 192.911(k), which was the basis for Item 3 of the Notice. Therefore, this allegation will be considered in Item 3 below.

Instead, it appears that the goal of MOC Plan Section 14 is simply to explain the general purpose of an MOC Plan, rather than to communicate specific instructions on how Gulf South's unique MOC program is to be implemented. Without such instructions, the MOC Plan is incomplete. Subsection 14.7, *Integrity Management Program Management of Change*, and Subsection 14.8, *Communications of Changes*, state that "[a]ll communications of changes should be undertaken in accordance with the requirements of Section 11, Communications Plan." Respondent did not attach or explain Section 11 in either its "Response to Notice of Probable Violation 2" or its "Response to Probable Violation 3."

Although submitted in response to PHMSA's allegations about inadequate BAP updating procedures and not MOC procedures, the table entitled *Allocation of Responsibilities for IMP-Related Tasks*, subsection 1.2.2, assigned responsibility for various tasks in its MOC Plan, including:

- "Review of changes to HCAs," assigned to the Engineering/GIS Team;
- "Initiating a review (through the Management of Change process) of the adequacy of outside force monitoring program should an unforeseen outside force event occur along a covered segment," assigned to Field Operations;
- "Communicating any increase in operating pressure that exceeds 10% of 5-year historical norms, or any increase in MAOP by means of the Management of Change processes," assigned to Operations; and
- Three separate tasks in the "Management of Change Plan" section of the table, including, "Reviewing, identifying, and communicating industry failure statistical trends and new vendor information," assigned to the IM Team and Engineering.¹²

The above-listed tasks show that the IMP directed that MOC procedures be utilized for certain changes within the system but the tasks are scattered throughout the IMP task list and do not evidence a thorough, organized process to analyze each proposed change. The *Management of Change* section of the subsection 1.2.2 table does not contain tasks that correspond either to Gulf South's "Section 14 Management of Change Plan" or ASME Standard, subsection 11(a). Instead, they appear to be geared towards relaying generic IMP information from industry and PHMSA to Gulf South and vice versa. The tasks listed in this section do not "identify and consider the impact of changes to pipeline systems," as required by ASME Standard, subsection 11(a).

The Notice also alleged that Respondent had no procedures to ensure that the BAP was kept up-to-date by including new information. ASME Standard, subsection 11(b), requires that operators recognize and respond to changed system conditions with appropriate changes to the IMP.¹³

In its Response, Gulf South submitted relevant portions of its IMP to demonstrate that

¹² Response to Notice of Probable Violation 3, IMP Section 1.2.2, *Allocation of Responsibilities for IMP-Related Tasks*.

¹³ "The operator shall recognize that system changes can require changes in the integrity management program and, conversely, results from the program can cause system changes." ASME Standard, subsection 11(b).

procedures to keep the BAP up-to-date were included. Section 5 of Respondent's IMP, which outlines the BAP, required that "[a]ll changes to the BAP will have a reason, be approved by the proper authority, be analyzed for implications of the change and be properly communicated to involved individuals." Subsection 4.7, *Ongoing Reevaluation of Risk*, stated: "[T]he risk assessment will be re-calculated and the results will be reviewed to determine if changes to the Baseline Assessment Plan are warranted."

While these sections do not include directions as to how and by whom these goals are to be achieved, the table at Subsection 1.2.2, *Allocation of Responsibilities for IMP-Related Tasks*, as discussed above, include dozens of IMP tasks assigned to various teams. The following tasks appear most relevant to ensuring that the BAP is kept up-to-date:

- "Review the annual risk assessment results against the BAP and revise priorities identified in the BAP . . .," assigned to the IMP Team;
- "Develop and perform revisions of the IMP (prioritization of segments for assessment and selection of assessment techniques for each segment)," assigned to the IMP Team;
- "Perform direct examination of pipe for 3rd party damage in areas where evidence of encroachment exists," assigned to Field Operations;
- "Refresh IRAS risk database on an annual basis and re-generate risk assessment," assigned to IMP Data Administration;
- "Review and validate risk assessment results," assigned to the IMP Team;
- "Documenting and maintaining records for Risk Assessment Algorithm and BAP," assigned to the IMP Team; and
- "Perform assessments to determine optimal means for mitigating risk for the following threats: third party damage, outside force (e.g., geotechnical, flooding, etc.), manufacturing defects, welding / fabrication defects, equipment failure, and incorrect operations," assigned to the IMP Team and Field Operations.¹⁴

The above-listed tasks, which Respondent assigned to specific teams/departments, demonstrate that Gulf South did have procedures in place for ensuring that changed conditions to its system resulted in changes to the IMP. ASME Standard, subsection 11(b), provides some examples of changes to the system that would require parallel changes to the IMP, including changes in surrounding land use and operating pressure. Respondent did describe and assign responsibility for various tasks to investigate these conditions and update the BAP or IMP accordingly. Therefore, I find that Respondent had adequate procedures in place to keep its BAP updated.

After considering all the evidence, I find that Respondent violated 49 C.F.R. § 192.911(k) by failing to have adequate MOC procedures in place to carry out its MOC Plan or ASME Standard, subsection 11(a), as required in 49 C.F.R. § 192.911(k). However, I find that it did have adequate procedures in place to ensure that its BAP was amended to reflect current risk assessment data, as required in ASME Standard, subsection 11(b).

Item 4: The Notice alleged that Respondent violated 49 C.F.R. § 192.911(l), which states:

¹⁴ IMP Section 1.2.2, "Allocation of Responsibilities for IMP-Related Tasks." Submitted as an attachment to "Response to Notice of Probable Violation 3."

§ 192.911 What are the elements of an integrity management program?

An operator's initial integrity management program begins with a framework (*see* § 192.907) and evolves into a more detailed and comprehensive integrity management program, as information is gained and incorporated into the program. An operator must make continual improvements to its program. The initial program framework and subsequent program must, at minimum, contain the following elements. (When indicated, refer to ASME/ANSI B31.8S (incorporated by reference, *see* § 192.7) for more detailed information on the listed element.)

(a)

(1) A quality assurance process as outlined in ASME/ANSI B31.8S, section 12.

The Notice alleged that Respondent violated 49 C.F.R. § 192.911(l) by failing to have an IMP that contained a comprehensive quality assurance/quality control (QA/QC) process, as required by ASME Standard, section 12. The allegations in the Notice generally restated the ASME Standard, section 12, requirements. It further alleged that Respondent's IMP did not define the scope or frequency of QA/QC reviews. PHMSA alleged that the fact that Respondent had not assessed threats discovered in an in-line inspection (ILI) run on Index 130 piping with a caliper pig demonstrated the inadequacy of the IMP procedures.

Respondent contested this allegation, asserting that each subpart of ASME Standard, section 12, was covered by its IMP. The company presented Section 12 of its IMP, *Quality Control Plan* (Respondent Section 12), and argued that its plan met the requirements of ASME Standard, section 12. A close comparison of the requirements of ASME Standard, section 12, and Respondent's Section 12 shows this is not the case. ASME Standard, subsection 12(b)(1), requires that an operator "determine" and "include" the documents in its quality control plan. Respondent's Section 12 contains various statements about the importance of documentation in general and that "[t]hese documents *may* take the form of risk assessments, reports, data documents (e.g. collection sheets, recording charts), and this IMP Program." A nearly identical list appears in ASME Standard, section 12, as "examples of documented activities." In other words, Respondent's IMP merely reiterated the contents of the ASME Standard, section 12, but did not apply it to Gulf South's own system by listing specific documents. I therefore find that Respondent failed to create a specific list of documents.

In addition, ASME Standard, subsection 12(b)(2), also requires that "responsibilities and authorities under this program shall be clearly and formally defined." The Notice alleged that Respondent's IMP failed to identify responsibility for IMP quality-control activities. Respondent's IMP Section 12 states that "[t]he responsibilities and authorities required to ensure the effective execution, application, and maintenance of this IMP Program are outlined in the Roles and Responsibilities section of the IMP." No such section, however, was attached to Respondent's "Response to Notice of Probable Violation 4."

The next subsection of Respondent's Section 12 states: "The Pipeline Integrity Group is responsible for maintenance of the Company's IMP Program." Not only is reference to the "Pipeline Integrity Group" vague, but Respondent's Table 1.2.2, *Allocation of Responsibilities for IMP-Related Tasks*, assigns responsibility for IMP tasks to at least six different teams or

authorities. No mention of the “Pipeline Integrity Group” exists in this document. I therefore find that Respondent failed to clearly and formally define responsibilities and authorities in its IMP.

ASME Standard, subsection 12(b)(3), further requires that “results of the integrity management program shall be reviewed at predetermined intervals, making recommendations for improvement.” Respondent’s Section 12 states: “Periodic review of the Program and its results is required, as outlined in ASME/ANSI B31.8S, section 12(b)(3).” ASME Standard, section 12, does not provide any specific interval. Respondent’s Section 12 states: “Review of the IMP document can happen at any prescribed time” This generic statement is insufficient to fulfill the requirement in the ASME Standard that *predetermined* intervals be established for review of an operator’s IMP.

ASME Standard, subsection 12(b)(4), requires that “[t]he personnel involved in the integrity management program shall be competent Documentation of such competence, awareness, and qualification and the processes for their achievement, shall be part of the quality control plan.” Respondent’s Subsection 12.5, *Training and Qualification Requirements*, states: “It shall be established that a program is in place for the effective training of individuals responsible for the effective management of the IMP. . . . They shall be trained as outlined in the Training and Qualification Requirements section of the IMP.”

However, the *Training and Qualification Requirements* section of Respondent’s IMP states only the following: (1) individuals involved in QA/QC and IMP must be, “competent, aware of the Program and its activities, and trained to execute such activities within the Program,” (2) “it is recommended that a number of these individuals be trained and assessed by a recognized third party QA/QC Service Contractor,” and (3) “[a]ny such training of these individuals shall be documented and records retained by the Operator Qualification Group.” The section is inadequate because it simply restates the ASME requirements and contains no information about the substance or procedures of the training process for ensuring competence, awareness, etc. Also, ASME Standard, subsection 12(b)(4), requires that this information “shall be part of the quality control plan.” It is not acceptable that documentation and record-keeping responsibilities are delegated to another group instead of including the information in the quality control plan. Therefore, I find that Respondent failed to define “the processes for their achievement” or the documentation requirements for training.

ASME Standard, subsection 12 (b)(5), requires that “[t]he operator shall determine how to monitor the integrity management program to show that it is being implemented according to plan and document these steps. These control points, criteria, and/or performance metrics shall be defined.” The Notice alleged that Respondent’s IMP had “inadequate specification for the performance and documentation of program reviews.” Respondent’s Section 12 states: “Performance metrics, criteria, and control points are dependent on what facet of the IMP is being assessed. These performance measures are limitations that are set in place . . . [and] agreed upon by Company Management in compliance with this IMP, Company Operations, Engineering Practices, and/or Regulatory and Environmental Laws governing the industry.” Again, these statements contain no specifics; they only describe how performance measures will be defined at some point in the future. Therefore, I find that Respondent failed to define control points, criteria, and/or performance metrics for monitoring implementation of its IMP.

ASME Standard, subsection 12(b)(6), requires that an IMP include “periodic internal audits . . . [and] an independent third party review of the entire program.” The Notice alleged that Respondent’s IMP lacked such a defined schedule of review. Respondent’s Section 12 required “an annual audit of the whole program internally or concurrently with an independent third party.” Because Gulf South’s IMP provided for annual reviews, I find that Respondent’s plan did meet the requirements in this subsection.

ASME Standard, subsection 12(b)(7), requires that corrective actions to improve the IMP and QA/QC program be documented and their effectiveness monitored. Respondent’s Section 12 states that “any competent and responsible employee may produce a corrective action” and that corrective action requires a report that communicates how non-conforming actions were brought back “within required parameters.” It further states that “Company Management” is required to review corrective action reports. I find that this section merely restates the generic requirements of ASME Standard, subsection 12(b)(7), and does not provide the level of detail that the ASME Standard requires as to how corrective action will be achieved within Gulf South’s organization under its unique operating conditions.

Finally, Respondent argued that the fact that it had not run a caliper pig was not indicative of inadequacy in its plan. It argued that running a Magnetic Flux Leakage/hardspot ILI tool was adequate because of its capacity to locate changes in pipeline hardness created as a result of a deformation caused by third-party damage. As discussed in further detail in Item 14 below, the caliper tool should have been used to locate third-party damage.

Accordingly, based upon a review of all of the evidence, I find that Respondent violated 49 C.F.R. § 192.911(l) by failing to include an adequate quality assurance procedure in its IMP for all but one of the seven quality-control requirements set out in ASME Standard, section 12.

Item 5: The Notice alleged that Respondent violated 49 C.F.R. § 192.911(l), as quoted above, by failing to meet the QA/QC requirements in ASME Standard, section 12. Specifically, the Notice alleged that Gulf South failed to take certain corrective action measures recommended by its third-party reviewer, Process Performance Improvement Consultants, LLC (P-PIC), to implement procedures for properly tracking corrective action measures to completion, and to ensure that contractors had proper QA/QC controls. Under ASME Standard, subsection 12(b)(7), “[c]orrective actions to improve the integrity management program shall be documented and the effectiveness of their implementation monitored.”

In its Response, Gulf South included a statement from an internal P-PIC review, dated August 15, 2005, stating that Respondent had completed most of the contractor’s recommended changes. Respondent also cited its document log, which, though lacking any detail, contained an entry dated August 2005 to “[i]ncorporate feedback from outside consultants” and included affected pages from its IMP reflecting the August 2005 update.

After considering all of the evidence, I find that there is insufficient evidence to support the allegation that Respondent failed to meet the requirements of ASME Standard, section 12, as more fully set forth above. Accordingly, this item is hereby withdrawn.

Item 6: The Notice alleged that Respondent violated 49 C.F.R. § 192.911(m), which states:

§ 192.911 What are the elements of an integrity management program?

An operator's initial integrity management program begins with a framework (*see* § 192.907) and evolves into a more detailed and comprehensive integrity management program, as information is gained and incorporated into the program. An operator must make continual improvements to its program. The initial program framework and subsequent program must, at minimum, contain the following elements. (When indicated, refer to ASME/ANSI B31.8S (incorporated by reference, *see* § 192.7) for more detailed information on the listed element.)

(a)

(m) A communication plan that includes the elements of ASME/ANSI B31.8S, section 10, and that includes procedures for addressing safety concerns raised by-

(1) OPS; and

(2) A State or local pipeline safety authority when a covered segment is located in a State where OPS has an interstate agent agreement.

The Notice alleged that Respondent violated 49 C.F.R. § 192.911(m) by failing to include in its IMP a communication plan that included the elements of ASME Standard, section 10. Specifically, it alleged that Gulf South's Communications Plan failed to specify how the company documented and routinely communicated IMP issues internally and how it acted upon requests made by PHMSA and state or local authorities. Also, it alleged that Respondent's IMP lacked formal communication procedures, such as specified intervals for internal communications or requirements to ensure a broad internal understanding of the IMP.

In its Response, Gulf South argued that Section 11 of its IMP, *Communications Plan*, addressed "how Gulf South regularly and routinely communicates and documents IMP issues internally and how it responds to requests made by PHMSA and state or local officials."¹⁵ An examination of Respondent's Communications Plan, however, reveals that it contains only general statements about making the IMP available to the above-listed authorities or notifying such authorities about significant changes to the IMP. For example, Subsection 11.2.2, *Communications to Stakeholders in HCAs*, states: "Communications, such as safety concerns, from OPS, state and local pipeline authorities and other stakeholders shall be handled by the Pipeline Integrity Group or Pipeline Safety Group, depending on the type of communications." Furthermore, subsection 11.4, *Communication of Changes*, states that changes to the IMP that "substantially affect" the program or its implementation must be communicated to PHMSA within 30 days after adopting the change.

Gulf South's Response appears to acknowledge that its' Communications Plan did not contain specific procedures for responding to authorities' concerns when it stated: "[N]o Gulf South-specific safety concerns had been raised by PHMSA or state or local officials. Should safety concerns be identified in the future, any necessary changes would be implemented in accordance with the MOC process contained in IMP Section 14." While this may be the case, § 192.911(m) requires that an operator's communications plan include procedures for addressing safety

¹⁵ Response to Notice of Probable Violation 6, at 2.

concerns raised by pipeline authorities. Therefore, I find that Respondent's plan failed to include a communications plan that included procedures for addressing safety concerns raised by OPS and state or local authorities.

As for PHMSA's allegation that Respondent had no formal procedures to provide for regular internal communications, a comparison of ASME Standard, section 10, and Respondent's plan is necessary. The former requires that operators develop and implement an internal communications plan that ensures integrity management personnel understand and support the IMP.¹⁶ It also requires that performance measures be reviewed on a periodic basis and that necessary changes be incorporated into the IMP, including the communications plan.

Gulf South's Communications Plan, however, does not do this. On the contrary, it states:

The Integrity Management Awareness Program makes provisions for the following communications to company employees that may be impacted by pipeline integrity.

- (1) Overview of the Integrity Management Program;
- (2) Summary of Performance Measure Reviews;
- (3) Results of Risk Assessment; and
- (4) Identification of Changes to the IMP. . .

[C]ontrolled copies of the IMP document shall be distributed to all recipients who are actively engaged in conducting or monitoring integrity management activities.¹⁷

Although the Communications Plan states that the company's Integrity Management Awareness Program "makes provisions" for communicating IMP information to company employees, it doesn't provide any procedures for accomplishing this objective beyond simply ordering that employees receive a copy of the IMP. Therefore, the statements in Respondent's plan are merely aspirational. In order to meet the requirements of 49 C.F.R. § 192.911(m), the IMP must provide specific guidance or requirements as to *how* company personnel are expected to communicate and document internal communications on Gulf South's IMP. Respondent has not presented any other evidence showing it had actually developed or implemented a specific plan to carry out these goals.

Accordingly, after considering all the evidence, I find that Respondent violated 49 C.F.R. § 192.911(m) by failing to include in its IMP a communication plan that ensured internal communications regarding IMP issues and that included procedures for addressing safety concerns raised by PHMSA or state or local authorities.

Item 7: The Notice alleged that Respondent violated 49 C.F.R. § 192.915, which states, in relevant part:

§ 192.915 What knowledge and training must personnel have to carry out an integrity management program?

¹⁶ ASME Standard, subsection 10.3.

¹⁷ Section 11.3, *Integrity Management Awareness Program*.

(a)

(b) *Persons who carry out assessments and evaluate assessment results.*

The integrity management program must provide criteria for the qualification of any person–

(1) Who conducts an integrity assessment allowed under this subpart; or

(2) Who reviews and analyzes the results from an integrity assessment and evaluation; or

(3) Who makes decisions on actions to be taken based on these assessments.

(c) *Persons responsible for preventive and mitigative measures.* The integrity management program must provide criteria for the qualification of any person–

(1) Who implements preventive and mitigative measures to carry out this subpart, including the marking and locating of buried structures; or

(2) Who directly supervises excavation work carried out in conjunction with an integrity assessment.

The Notice alleged that Respondent violated 49 C.F.R. § 192.915 by failing to have procedures or program qualification requirements documented in its IMP for personnel who carried out assessments or evaluated assessment results. Gulf South contested this Item, asserting that subsection 1.2.1 of its IMP described the roles and responsibilities of the personnel involved in integrity management activities and that Section 13 of its IMP stated that the training, qualification, and evaluation requirements for such individuals were described in its operator qualification (OQ) document. Respondent argued that the two sections, taken together, satisfied 49 C.F.R. § 192.915(b) and (c).

Gulf South submitted copies of portions of its IMP. Section 13, *Training and Qualification Requirements*, and subsection 1.2.1, *Roles and Responsibilities*, provide descriptions of various personnel positions in the company (i.e., Vice President, Operations; Corrosion Manager, ILI Manager), but do not contain either “criteria for the qualification” for these positions or a description of how or whether these individuals are determined to be “qualified” for performance of IMP tasks. Section 13 allows individuals to be qualified through written or oral examinations or performance evaluations, but does not set out the criteria which must be met through such examinations. It also states that persons conducting integrity assessments and reviewing integrity assessments must have “proper training, knowledge and experience,” and that persons who perform preventive and mitigative measures, “must be qualified under Company’s OQ program.” Stating that such persons must have proper training, however, is not the same as providing criteria against which they are to be evaluated. Respondent did not attach its OQ plan to show the appropriate criteria for qualification. In any event, § 192.915(b) and (c) require that the IMP contain criteria for qualification.

Accordingly, after considering all the evidence, I find that Respondent violated 49 C.F.R. § 192.915 by failing to include in its IMP the criteria for persons performing or reviewing integrity assessments or for those performing preventive and mitigative measures.

Item 8: The Notice alleged that Respondent violated 49 C.F.R. § 192.917(a), which states:

§ 192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(a) *Threat identification.* An operator must identify and evaluate all potential threats to each covered pipeline segment. Potential threats that an operator must consider include, but are not limited to, the threats listed in ASME/ANSI B31.8S (incorporated by reference, *see* § 192.7), section 2, which are grouped under the following four categories:

- (1) Time dependent threats such as internal corrosion, external corrosion, and stress corrosion cracking;
- (2) Static or resident threats, such as fabrication or construction defects;
- (3) Time independent threats such as third party damage and outside force damage; and
- (4) Human error.

The Notice alleged that Respondent violated 49 C.F.R. § 192.917(a) by failing to identify and evaluate in its IMP all potential threats to each covered pipeline segment, as outlined in ASME/ANSI B31.8S, section 2. Specifically, it alleged that Gulf South failed: (1) to develop and implement a systematic process for evaluating threats for specific pipeline segments; (2) to adequately justify the elimination of “cyclic fatigue or other loading conditions” as a threat for all pipeline segments; and (3) to develop a procedure for analyzing interacting threats, such as corrosion related to low frequency ERW pipe or third-party damage.

As for the first allegation, Gulf South contended that its risk model did consider a comprehensive list of data to assess all threats to the pipeline, including interacting threats. It cited subsection 4.4 of its IMP, *Risk Assessment Methodology* (§ 192.917), which outlined its own risk assessment methodology, known as “Dynamic Risk Assessment System” (DRAS), that the company described as a failure-likelihood algorithm or risk matrix that included 10 measures of “failure likelihood” and three measures of “consequence.”¹⁸ According to Gulf South, the weight of each factor was determined by “failure statistics maintained within the Company, and that were augmented by industry statistics.”¹⁹ The procedure included a subsection on each failure threat, which explained the detailed criteria for the scoring of that section.²⁰

Given that the regulation does not specify how an operator must conduct the risk evaluation, we

¹⁸ The 10 failure threats, with their respective assigned weights, were: external corrosion (40%), third party damage (15%), manufacturing defects (seam defects, hard spots) (10%), fabrication/joining (7%), old repairs (7%), equipment failures (5%), weather and outside force (5%), internal corrosion (5%), incorrect operations (3%), and SCC (3%). IMP Figure 4.5-1, submitted as an attachment to Response to Notice of Probable Violation 8.

¹⁹ IMP Section 4.5, *Failure Likelihood Assessment*, submitted as an attachment to “Response to Notice of Probable Violation 8.”

²⁰ For example, the external corrosion section includes a litany of factors such as pipe age, coating type, cathodic protection, casing, soil type, failure history, etc. Depending of the type of data available for each factor, the analysis and assumptions may vary.

must defer to the ASME Standard. Under subsection 5.5, “Risk Assessment Approaches,” four different approaches are available. One of these methods, known as the “Relative Assessment Models” approach, identifies and quantitatively weighs known threats and consequences relevant to past pipeline operations and is consistent with the methodology used in DRAS. Accordingly, I find no basis for the allegation that Respondent’s IMP lacked a “systematic process” for evaluating threats on specific pipelines segments.

As for the second allegation that the company failed to adequately justify the elimination of “cyclic fatigue or other loading conditions” as a threat for all pipeline segments, Gulf South responded that its risk algorithm did, in fact, consider the potential for cyclic fatigue when it calculated “defect scores for threats that are associated with seam defects and joining defects.”²¹ Under subsection 4.2 of its IMP, *Threat Identification*, it further stated that cyclic fatigue had not occurred on Gulf South gas pipelines, but that “the Company will continue to monitor for fatigue.” The company further noted, in subsection 4.5.6, *Fabrication/Joining*, that “[a]n increase in stress conditions leading to cyclic fatigue” was included as a factor in determining risk scores. Finally, Respondent cited a 2004 article in support of its argument that cyclic fatigue was not a common problem in gas pipelines.²²

OPS did not present any additional evidence or arguments to rebut Respondent’s defenses against this allegation. Accordingly, I find that there is insufficient evidence to support a finding that Gulf South failed to adequately justify the elimination of “cyclic fatigue or other loading conditions” as a threat for all pipeline segments.

As for the third allegation that Respondent did not have a procedure for analyzing interacting threats, Gulf South cited various sections of its IMP as evidence that it had adequate procedures for analyzing such threats. First, it cited subsection 4.4, which states: “Because the model considers all threats, it consequently considers multiple threats and their interaction as well.”²³

Respondent is correct that the DRAS weighting and scoring system considered more than one threat on each section of pipeline. However, the Notice alleged that Gulf South’s IMP failed to analyze the manner by which certain threats can exacerbate others, such as corrosion and third-party damage.²⁴ A review of the company’s various failure threat sections reveals that the scoring of one threat often includes consideration of another. For example, the corrosion section included consideration of weather and environmental conditions; the SCC section included consideration of seam weld defects.²⁵ However, it does not appear that the model considered *all* interacting threats, as there is no mention of third-party damage in the corrosion scoring explanation or vice versa.

²¹ Supplemental Response, at 23.

²² “Effects of Pressure Cycles on Gas Pipelines.” Kiefner, J.F., Rosenfeld, M.J., September 17, 2004.

²³ IMP Section 4.4, submitted as an attachment to “Response to Notice of Probable Violation 8.”

²⁴ “The interactive nature of threats (i.e. more than one threat occurring on a section of pipeline at the same time) shall also be considered. An example of such an interaction is corrosion at a location that also has third party damage.” ASME Standard, subsection 2.2.

²⁵ IMP Section 4, *Threat Identification, Data Integration, and Risk Assessment* (§ 192.917).

Respondent cited subsections 4.5.5 and 6.3.1 of its IMP in support of its position. However, a review of these subsections reveals that they do not discuss how interactive threats are considered. Both subsections contain the following simple statement: “If other interacting threats could adversely affect the stability of residual manufacturing and construction defects, as required by ASME B31.8S, subsection 2.2, Company will establish its assessment plans accordingly.” It is unclear what conditions would have to exist in order for Respondent to determine that such “interacting threats *could* adversely affect stability” of its covered segments. The IMP does not provide details as to *how* or even *when* it will evaluate or make conclusions about the presence of interacting threats. Although DRAS requires consideration of various interacting threats, it does not meet the requirements of ASME Standard, section 2.

Accordingly, after considering all of the evidence, I find there is insufficient evidence to prove that Respondent’s IMP lacked an adequate process for identifying and evaluating threats or that it improperly eliminated cyclic fatigue or other loading conditions as a threat. On the other hand, I find that Respondent did violate § 192.917(a) by failing to consider all potential interacting threats, as required in ASME Standard, subsection 2.2.

Item 9: The Notice alleged that Respondent violated 49 C.F.R. § 192.917(b), which states:

§ 192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(a)

(b) *Data gathering and integration.* To identify and evaluate the potential threats to a covered pipeline segment, an operator must gather and integrate existing data and information on the entire pipeline that could be relevant to the covered segment. In performing this data gathering and integration, an operator must follow the requirements in ASME/ANSI B31.8S, section 4. At a minimum, an operator must gather and evaluate the set of data specified in Appendix A to ASME/ANSI B31.8S, and consider both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records and all other conditions specific to each pipeline.

The Notice alleged that Gulf South violated 49 C.F.R. § 192.917(b) by failing to include proper procedures in its IMP for gathering and integrating data consistent with ASME Standard, section 4, which requires that design and construction data be integrated with current operational and maintenance records. PHMSA also alleged that Respondent violated ASME Standard, section 4, by failing to develop procedures to indicate the basis for assumptions made when data was missing or suspect. Specifically, it alleged that Gulf South’s IMP failed to: (1) make conservative assumptions with regard to missing threat and segment data; (2) maintain records that identified how unsubstantiated data were used; and (3) initiate or plan actions to obtain data where there were data deficiencies.²⁶

In its Response, Gulf South argued that its IMP did, in fact, describe how the company gathered

²⁶ ASME Standard, subsections 4.2.1, 4.3, and 4.4.

and integrated data. Respondent stated that its data owners gathered data from a number of sources and that the company ensured data quality through certain data validation activities. Respondent submitted Table 2, *Data Source Mapping*, from its IMP, listing various threats and their information sources. However, neither this chart nor any other part of the IMP indicates how, by whom, or what information about the listed threats is actually collected. The table provides no information about segments or locations along Respondent's system where the listed threats have been detected or may be considered a threat as a result of missing data. The table only demonstrates that information about various threats *could be* collected from the listed sources.

Respondent also submitted Section 3 of its IMP, which stated that the company's engineering department was responsible for entering data in the GIS system. However, there was no explanation as to how the GIS system, which contained data about activities and structures in and around the pipeline right-of-way, gathered data about the pipeline itself. Also, IMP Section 3 stated that "PIPER records are tied to new geometry within the appropriate PODS tables and updated in the GIS as needed."²⁷ Respondent provided no explanation, however, as to how or whether Respondent utilized these programs to collect and integrate data.

The company also submitted Section 6.5.1 of its IMP, *Periodic Evaluations - Data and Risk Reviews*, which states: "A re-evaluation of risk on a system-wide basis for all covered pipeline segments shall be conducted at least once a year to ensure that the assessed threats and risk magnitudes that are assigned to covered segments is consistent with the latest available data." Respondent also submitted significant portions of its IMP relating to reassessment intervals and methods. While related to this allegation, such procedures do not explain *how* data is systematically collected and integrated, which is what ASME Standard, section 4, requires.

Finally, Respondent stated that it used a system called "*Data view*" to align all data attributes to assess risk, yet provided no further information about this system, either in its Response or in the IMP sections attached to the Response. The IMP contained generalized statements about data integration, indicating an understanding of the purpose of such a process, but included no specific procedures as to how the company actually carried out the data integration process.²⁸ While the analysis of the DRAS above concluded that such system was capable of adequately assessing threats to the pipeline system, specific procedures for maintaining up-to-date information in the DRAS are necessary to comply with ASME Standard, section 4.

ASME Standard, section 4, also requires that "[d]evelopment of a common reference system (and consistent measurement units) will allow data elements from various sources to be

²⁷ Nothing in Respondent's "Response to Notice of Probable Violation 9" indicates what "PIPER" or "PODS" stand for, assuming they are acronyms. A review of Respondent's entire IMP Section 3 revealed that "MAOP calculations are maintained in the Company's PIPER database." No explanation was located about the purpose of the "PODS" database.

²⁸ For example, Section 6.5. *Reassessment Plan*, states: "This re-evaluation shall include data integration and risk assessment so that . . . the impact of these changes on the risk profile of each segment, and the risk prioritization can be accounted for." Also, Section 6.5.4 states: "The data collected as part of the above surveys and analyses must be maintained in the Risk Database, and any decisions and/or findings that are made as a result of the integration and evaluation of relevant data must be documented."

combined and accurately associated with common pipeline locations.”²⁹ I find that the information provided by Respondent points to disjointed data collection and integration procedures instead of one common, well-developed data reference system. Respondent’s explanation and submissions do not refute PHMSA’s allegation that the data gathering procedure failed to meet the requirements of ASME Standard, section 4.

Finally, in response to PHMSA’s allegations that Gulf South lacked proper procedures to address missing data and that it failed to make conservative assumptions in those instances, Respondent cited various company policy statements indicating that conservative default scores were to be used where data was missing. For example, Respondent cited Section 4.3.5 of its IMP, *Assuring Data Quality*, where it stated that the company was “always conservative with suspect data and defaults – worst case scenarios – are used whenever no data is available.” The Response also provided examples of instances where conservative scores were assigned to pipe segments on which data was unavailable. For example, the most conservative score of “10” was assigned to two external corrosion categories where the coating type and soil type were unknown. In an SCC category, a score of “9” was assigned where a compressor station’s distance from a point was unknown.

While the evidence does show that Respondent made conservative assumptions with regard to certain missing threat and segment data, there were other shortcomings in this key part of the data integration process. Specifically, there was still no indication that Gulf South either maintained records identifying how such unsubstantiated data were to be used or that it had procedures in place describing how the company would initiate or plan actions (e.g., additional inspections or field data collection efforts) to obtain data where data deficiencies existed.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 192.917(b) by failing to have proper procedures for gathering and integrating data consistent with ASME Standard, section 4, which requires that operators have a systematic process for collecting and utilizing the data elements necessary for risk assessments. The missing or inadequate procedures included processes for actually collecting threat information, for integrating GIS and other threat data, for maintaining records identifying how unsubstantiated data were used, and for initiating and planning actions to obtain data where data deficiencies existed.

Item 10: The Notice alleged that Respondent violated 49 C.F.R. § 192.917(b), as quoted above, by failing to analyze and review each covered segment of its system using the complete data sets specified in Appendix A to the AMSE Standard, as summarized in Table 1, and the seven factors prescribed in § 192.917(b). The Notice also alleged that certain factors of these required data elements were excluded without explanation.

In response, Gulf South argued that the data sets listed in Appendix A to AMSE/ANSI B31.8S and in § 192.917(b) “are applied in the Integrated Risk Assessment System (IRAS) model.”³⁰ In

²⁹ ASME Standard, subsection 4.5.1.

³⁰ Supplemental Response, at 11.

support of this contention, Respondent submitted its Table 4.2-1.³¹ Respondent is correct that many of the elements listed in AMSE/ANSI B31.8S and the seven factors prescribed in the rule appear in this table. Table 4.2-1 lays out the various factors, but there is no substantive information about the pipeline to perform an analysis. Therefore, the table does not serve to “evaluate” the required elements needed for identifying or prioritizing threats to the pipeline. I find nothing in the record to demonstrate that Respondent actually “gather[ed] and evaluate[d] the set of data specified in Appendix A to ASME/ANSI B31.8S, and consider[ed] both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records and all other conditions specific to each pipeline.”

Accordingly, after considering all of the evidence, I find that Respondent failed to gather and evaluate the data as required by Appendix A of the ASME Standard and 49 C.F.R. § 192.917(b).

Item 11: The Notice alleged that Respondent violated 49 C.F.R. § 192.917(c), which states:

§ 192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(a)

(c) *Risk Assessment.* An operator must conduct a risk assessment that follows the ASME/ANSI B31.8S, section 5, and considers the identified threats for each covered segment. An operator must use the risk assessment to prioritize the covered segments for the baseline and continual reassessments (§§ 192.919, 192.921, 192.937), and to determine what additional preventive and mitigative measures are needed (§ 192.935) for the covered segment.

The Notice alleged that Respondent violated 49 C.F.R. § 192.917(c), by failing to have proper procedures in its IMP to conduct risk assessments for identifying threats to pipeline integrity. Specifically, it alleged that Gulf South’s risk assessment process failed to address how risk data was used to accomplish the six specific objectives set forth in ASME Standard, subsection 5.3.³²

In its Supplemental Response, Gulf South addressed each of the six ASME risk assessment objectives. First, in response to PHMSA’s allegation that the company did not have procedures to assess the benefits derived from mitigating actions, Gulf South contended that its use of the “Case Study functionality of IRAS” was appropriate for determining the effect of mitigating actions.³³ However, Respondent did not provide any explanation as to what the “Case Study

³¹ “Table 4.2-1, *Data Review and Preliminary Threat Assessment*, p. IMP 4-4 to IMP 4-15, submitted as an attachment to “Response to Notice of Probable Violation 10.”

³² ASME standard, subsection 5.3, lists the six risk assessment objectives: (a) prioritization of pipelines/segments for scheduling assessment and mitigation; (b) assessment of the benefits derived from mitigating action; (c) determination of the most effective mitigation measures for identified threats; (d) assessment of the integrity impact from modified inspection intervals; (e) assessment of the use of or need for alternative inspection methodologies; and (f) more effective resource allocation.

³³ Response to Notice of Probable Violation 11, at 2.

functionality” of its IMP was or how it functioned, nor could PHMSA locate an explanation in the various IMP sections that Respondent attached to its Supplemental Response. I therefore find that Respondent’s risk assessment process did not include any means of assessing the benefits of mitigation.

Second, in response to PHMSA’s allegation that Gulf South did not have procedures to determine the most effective mitigation measures for identified threats, Respondent stated that “[t]he process for determining the appropriate mitigating action is described in IMP Section 8 – *Additional Preventative Measures*.”³⁴ However, a review of Section 8 reveals that the section is aimed at “reducing risk through mitigating the consequence of a failure . . . of various operations-related measures, such as increased patrol frequency, increased signage, and decreased notification response times on risk.”³⁵ Actual pipe conditions, not “operations-related measures,” are the focus of ASME Standard, subsection 5.3. In this context, “mitigation” refers to “actions that can be taken to reduce or eliminate the threat to the integrity of a pipeline.”³⁶ Thus, Section 8 of Respondent’s IMP is not responsive to the requirements in § 192.917(c).

Third, in response to PHMSA’s allegation that Gulf South did not have procedures to assess the use of, or the need for, modified inspection intervals, Respondent stated that it could determine the impact of modified inspection intervals by using the “Case Study functionality.” Again, there is no explanation as to how Gulf South utilized the “Case Study functionality,” nor could PHMSA locate such an explanation in the various IMP sections that Respondent attached to its Supplemental Response. Gulf South also cited subsections 4.5.1, 4.5.4, and 4.5.2 of its IMP, but these sections simply discuss how the DRAS scored various integrity threats (e.g., external corrosion, SCC, and internal corrosion). There is minimal, if any, direct discussion of inspection intervals and no mention of “modified inspection intervals” in these sections. Therefore, I find that Respondent’s procedures did not assess the use of, or need for, modified inspection intervals.

Fourth, Respondent appears to concede PHMSA’s allegation that the company lacked procedures to address “the need for alternative inspection methodologies,” as it cited no sections of its IMP as responsive.

Fifth, in response to PHMSA’s allegation that Gulf South’s procedures did not address effective resource allocation, Gulf South stated that it gave assessment, mitigation, and preventive measures priority in those areas with the highest risk scores. In support, Respondent cited subsection 4.1 of its IMP, which states: “The Company will review annually to ensure that adequate time and personnel have been allocated to permit effective completion of the selected risk assessment approach.” This generic statement, however, does not set forth any procedures or details about how this goal will be accomplished. Instead, it is merely purpose-stating. Therefore, I find that Respondent’s procedures do not address effective resource allocation.

³⁴ *Id.*

³⁵ Response to Notice of Probable Violation 11, attachment; IMP Section 8.7. *Strategies for Mitigating the Consequences of Failure*.

³⁶ Section 7. *Responses to Integrity Assessments and Mitigation*.

Finally, Gulf South did not cite any section of its IMP in response to PHMSA's allegation that its procedures failed to facilitate decision-making to address pipeline and facility risks.

Accordingly, after considering all of the evidence, I find that Respondent failed to have proper procedures in its IMP to address the above-listed risk assessment objectives in ASME Standard, subsection 5. 5.3, as incorporated into 49 C.F.R. § 192.917(c).

Item 12: The Notice alleged that Respondent violated 49 C.F.R. § 192.917(e)(3), which states:

§ 192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(a)

(e) *Actions to address particular threats.* If an operator identifies any of the following threats, the operator must take the following actions to address the threat.

(1)

(3) *Manufacturing and construction defects.* If an operator identifies the threat of manufacturing and construction defects (including seam defects) in the covered segment, an operator must analyze the covered segment to determine the risk of failure from these defects. The analysis must consider the results of prior assessments on the covered segment. An operator may consider manufacturing and construction related defects to be stable defects if the operating pressure on the covered segment has not increased over the maximum operating pressure experienced during the five years preceding identification of the high consequence area. If any of the following changes occur in the covered segment, an operator must prioritize the covered segment as a high risk segment for the baseline assessment or a subsequent reassessment.

(i) Operating pressure increases above the maximum operating pressure experienced during the preceding five years;

(ii) MAOP increases; or

(iii) The stresses leading to cyclic fatigue increase.

The Notice alleged that Respondent violated 49 C.F.R. § 192.917(e)(3) by failing to have defined procedures in its IMP for addressing manufacturing and construction defects. Specifically, it alleged that Gulf South's IMP failed to include procedures on how the company monitored operating conditions, such as pressure increases above the MAOP, fluctuations, and stresses leading to cyclic fatigue.

In its Supplemental Response, Gulf South stated that it monitored manufacturing and construction defects through its annual risk assessment using the IRAS. In support of this contention, Respondent submitted the following sections of its IMP:

- *Subsection 4.5.5, Manufacturing Defects* - provided a formula to determine the susceptibility of a segment to hard spots, which included "operating stress level" as a variable. It also discussed how "stress overload" was usually necessary for the growth of seam defects.

- *Subsection 4.5.6, Fabrication/Joining* - stated that the primary joining threat along the Gulf South system was field girth weld and dresser couplings failures and contained a chart showing various pressure conditions to predict such situations.
- *Subsection 6.3.1, Pressure Testing Plan* - stated that pressure tests were appropriate to assess pipe seam and manufacturing threats. It also stated that pressure changes or MAOP increases would affect prioritization because such events could affect manufacturing and construction defects.
- *Subsection 8.5, Strategies for Material Defects* - stated that the Operations Department must report any operating pressure that exceeded 10% of five-year historical norms and any increase in MAOP.

Upon review of these portions of Respondent's IMP, I find that they did include procedures to ensure that if manufacturing and construction defects were identified, then there was a defined process for analyzing the affected pipe segments to determine the risk of failure from such defects, as required under 49 C.F.R. § 192.917(e)(3). Accordingly, I order that this Item be withdrawn.

Item 13: The Notice alleged that Respondent violated 49 C.F.R. § 192.919(b), which states:

§ 192.919 What must be in the baseline assessment plan?

An operator must include each of the following elements in its written baseline assessment plan:

(a)

(b) The methods selected to assess the integrity of the line pipe, including an explanation of why the assessment method was selected to address the identified threats to each covered segment. The integrity assessment method an operator uses must be based on the threats identified to the covered segment. (*See* § 192.917.) More than one method may be required to address all the threats to the covered pipeline segment;. . .

The Notice alleged that Respondent violated 49 C.F.R. § 192.919(b) by failing to include in its BAP proper procedures to describe its analytical process for selecting the appropriate ILI tools or using such information to address identified threats. In addition, it alleged that Respondent's BAP did not "specify the use of a tool tolerance to compensate for potential tool and grading inaccuracies for ILI results." Finally, it alleged that Gulf South did not have a quality assurance procedure to ensure vendor qualification to evaluate ILI results.³⁷

Respondent defended the adequacy of its BAP procedures against all three allegations. First, it argued that it selected ILI tools pursuant to its IMP, Section 6, *Assessment Plan*, and Section 3, *Tool Selection and Management of Data of Evaluation and Remediation Practice #4, Inline Inspection Practice*, which contained detailed descriptions of many ILI tools, their usage,

³⁷ The factual allegations in Items 13 and 14 of the Notice were erroneously reversed. The following discussion for Items 13 and 14 therefore considers the combined allegations and the operator's responses to both Items.

strengths, weaknesses, and limitations and an analysis of the ILI tool selection process.³⁸ Also, Section 6.1 of the company's IMP summarized appropriate assessment methods as a function of the threat type, including third party/mechanical damage. The "Assessment Limitations" columns of the table stated that third-party damage may be detected through ILI Pipe Size and Deformation Tools and that metal loss associated with third-party damage could be detected through the use of magnetic flux leakage, (MFL) tools and possibly crack detection tools.

Second, in response to PHMSA's allegation about the failure to specify the use of tool tolerance, it argued that section 7.5 of its IMP, *Response Schedule for Anomalous Conditions*, provided that "tool tolerance will be considered when selecting tools for remediation activities."

Finally, Respondent argued that quality assurance was provided both through its IMP and its contracts with vendors. Section 12.8 of its IMP, *Control of Vendor-Supplied Services*, stated that all vendors must be audited and approved prior to the start of services in order to determine whether a contractor was "qualified and accountable." That section also required that contract services be documented so that work could be checked to ensure compliance with the IMP. Respondent also cited language within its vendor contracts that required vendor compliance with API 1163 and ASNT ILI-PQ-2004.

After considering all of the evidence, I find that Gulf South's BAP did have written procedures for its ILI tool selection process, as required in § 192.919(b), and that it required the consideration of tool tolerance and quality assurance of vendor personnel and work. Accordingly, I order that Item 13 be withdrawn.

Item 14: The Notice alleged that Respondent violated 49 C.F.R. § 192.921(a), which states:

§ 192.921 How is the baseline assessment to be conducted?

(a) *Assessment methods.* An operator must assess the integrity of the line pipe in each covered segment by applying one or more of the following methods depending on the threats to which the covered segment is susceptible. An operator must select the method or methods best suited to address the threats identified to the covered segment (*See* § 192.917).

(1) Internal inspection tool or tools capable of detecting corrosion, and any other threats to which the covered segment is susceptible. An operator must follow ASME/ANSI B31.8S (incorporated by reference, *see* § 192.7), section 6.2 in selecting the appropriate internal inspection tools for the covered segment. . . .

The Notice alleged that Respondent violated 49 C.F.R. § 192.921(a) because its BAP failed to select an assessment method or methods best suited to address the threats identified in particular covered pipe segments. Specifically, it alleged that Respondent failed to use a caliper run to address potential third-party damage, which the risk assessment had identified as a primary threat.

In its Supplemental Response, Gulf South argued that it did not need to use a caliper tool and

³⁸ *Evaluation & Remediation Practice #4, In-Line Inspection Practice, Tool Selection and Management of Data*, as cited in "Response to Notice of Probable Violation 4" and attached as Exhibit L of the Violation Report.

that its combined use of a “gagging pig,” a dummy pig, and an MFL hardspot ILI tool was sufficient because each of those tools was capable of detecting third-party damage and that the company had integrated the results of the gagging tool with the results of the MFL tool to conclude that no third-party damage had occurred. However, such an approach is inconsistent with Respondent’s own IMP.

Under its own *Evaluation and Remediation Practice #4 – In-Line Inspection Practice*, caliper tools are used to detect dents caused by third-party damage.³⁹ That section also states that MFL tools “are not reliable for detection or sizing of most defects other than metal loss.”

Furthermore, under ASME Standard, subsection 6.2, gauging and dummy tools are not considered accurate in detecting third-party damage, especially dents that are less than 10% of pipe diameter, and the main function of the MFL tool is to detect metal loss, not dents. The caliper pig is the appropriate tool for the detection of dents caused by third parties.⁴⁰

Respondent further argued that it had compensated for tool inaccuracies in its selection of remediation activities and through its standard practice of performing validation digs. Conservative selection of remediation activities and validation digs may certainly be beneficial, but they do not alleviate Respondent’s duty to “select the method or methods best suited to address the threats identified to the covered segment.” Therefore, Respondent’s determination that “running a caliper pig was unnecessary because the results of the “gagging pig” together with the MFL/hardspot tool adequately assessed third party damage” was erroneous.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 192.921(a) by failing to select the assessment method or methods best suited to address the threats identified on each covered pipe segment.

Item 15: The Notice alleged that Respondent violated 49 C.F.R. § 192.921(f) and (g), which state:

§ 192.921 How is the baseline assessment to be conducted?

(a)

(f) *Newly identified areas.* When an operator identifies a new high consequence area (*see* § 192.905), an operator must complete the baseline assessment of the line pipe in the newly identified high consequence area within ten (10) years from the date the area is identified.

(g) *Newly installed pipe.* An operator must complete the baseline assessment of a newly-installed segment of pipe covered by this subpart within ten (10) years from the date the pipe is installed. An operator may conduct a pressure test in accordance with paragraph (a)(2) of this section, to satisfy the requirement for a baseline assessment.

³⁹ Violation Report, Item # 14.

⁴⁰ ASME Standard, subsection 6.2.3, “Metal Loss and Caliper Tools for Third-Party Damage and Mechanical Damage Threat,” states that gagging pigs are the “lowest resolution” geometry tools and that they are only “adequate for identifying and locating severe deformation of a pipe cross section. A higher resolution is provided by the standard caliper tools . . .” The section goes on to state that “[t]here has been limited success identifying third party damage using magnetic flux leakage tools. MFL tools are not useful for sizing deformations.”

The Notice alleged that Respondent violated 49 C.F.R. § 192.921 by failing to have procedures or programmatic requirements to complete a baseline assessment for segments having newly identified HCAs and newly installed segments within 10 years from the date of installation or identification.

In its Supplemental Response, Gulf South asserted that its IMP complied with the requirement for completion of baseline assessments within 10 years for newly identified HCAs and newly installed segments. It first cited Table 1.2.2 of its IMP, *Allocation of Responsibilities for IMP Related Task*, which contained various requirements about entering new HCAs into Respondent's IMP. Respondent also cited its IMP Section 3.1.1, which required that "new segments must be incorporated into the baseline plan as an HCA within one year from the date the area is identified." Finally, Respondent cited its IMP subsection 5.1, which stated, like subsection 3.1.1, that new HCAs must be incorporated into the BAP within one year.

Accordingly, upon review of the materials submitted by Respondent, I find no evidence to support the allegation that Respondent violated 49 C.F.R. § 192.921(f) and (g) as alleged in the Notice. Therefore, I order that Item 15 be withdrawn.

Item 16: The Notice alleged that Respondent violated 49 C.F.R. § 192.933(c), which states:

§ 192.933 What actions must be taken to address integrity issues?

(a)

(c) *Schedule for evaluation and remediation.* An operator must complete remediation of a condition according to a schedule prioritizing the conditions for evaluation and remediation. Unless a special requirement for remediating certain conditions applies, as provided in paragraph (d) of this section, an operator must follow the schedule in ASME/ANSI B31.8S (incorporated by reference, see § 192.7), section 7, Figure 4. If an operator cannot meet the schedule for any condition, the operator must explain the reasons why it cannot meet the schedule and how the changed schedule will not jeopardize public safety.

The Notice alleged that Respondent violated 49 C.F.R. § 192.933(c) for failing to have procedures to implement an alternative remediation schedule in the event that the one provided in ASME/ANSI B31.8S, section 7, Figure 4, could not be met. Specifically, it alleged that Respondent's IMP failed to identify who would be responsible for developing the justification for an alternative schedule, where such records would be maintained, and what would be their contents.

In its Supplemental Response, Gulf South cited subsection 7.6 of its IMP, which tracked the requirements of the regulation and required, in the event of an inability to meet the ASME Standard, section 7 schedule, that the company document "the reasons why the schedule cannot be met and the basis for why the changed schedule will not jeopardize public safety." In response to PHMSA's criticism that the justification procedure did not contain adequate detail, Respondent argued that it had not had any defects on its covered segments that required scheduled repair and therefore had no instances of failure to meet the required schedule. Therefore, it was difficult to imagine how Respondent could describe the "contents" of a

justification when it had never had any defect that could potentially exceed the required schedule.

Under § 192.933(c), an operator must remediate conditions according to either the ASME Standard, section 7 schedule or an alternative one that has been properly justified. Gulf South presented evidence that it did have procedures in place to address the potential need for an alternative schedule and that it had never violated the requirement of this section to complete such remediation in a timely manner. The regulation is written to require the operator to provide justification for “any condition” for which the schedule cannot be met. It does not require the operator to have a justification in place before a condition arises. PHMSA presented no evidence or arguments to rebut the evidence provided by Respondent or to demonstrate that the company had failed to properly remediate such conditions under § 192.933(c). Therefore, I order that Item 16 be withdrawn.

Item 17: The Notice alleged that Respondent violated 49 C.F.R. § 192.933(c), as quoted above, by failing to develop a prioritized schedule for remediation activities, as required by the regulations and as specified in Respondent’s IMP, subsection 7.5. In its Supplemental Response, Gulf South argued that such a schedule was impossible to develop since it had no immediate or scheduled anomalies in an HCA to schedule. I agree. Accordingly, based upon review of all of the evidence, I hereby withdraw Item 17.

Item 18: The Notice alleged that Respondent violated 49 C.F.R. § 192.935(a), which states:

§ 192.935 What additional preventive and mitigative measures must an operator take?

(a) *General requirements.* An operator must take additional measures beyond those already required by Part 192 to prevent a pipeline failure and to mitigate the consequences of a pipeline failure in a high consequence area. An operator must base the additional measures on the threats the operator has identified to each pipeline segment. (See § 192.917) An operator must conduct, in accordance with one of the risk assessment approaches in ASME/ANSI B31.8S (incorporated by reference, see § 192.7), section 5, a risk analysis of its pipeline to identify additional measures to protect the high consequence area and enhance public safety. Such additional measures include, but are not limited to, installing Automatic Shut-off Valves or Remote Control Valves, installing computerized monitoring and leak detection systems, replacing pipe segments with pipe of heavier wall thickness, providing additional training to personnel on response procedures, conducting drills with local emergency responders and implementing additional inspection and maintenance programs.

The Notice alleged that Respondent violated 49 C.F.R. § 192.935(a) by failing to have formal procedures or documentation to identify the required additional preventive and mitigative (P&M) measures.

In its Supplemental Response, Gulf South cited various sections of its IMP that it argued were formal strategies for completing P&M measures. Respondent cited Section 8 of its IMP,

Additional Preventative and Mitigative Measures (§192.935), which included a flow chart for selecting appropriate P&M measures and a narrative on various prevention measures that should be considered to address various types of threats, including, third-party damage, outside force damage, corrosion, material defects, and stress corrosion cracking. It also listed various mitigative measures, including measures to reduce the consequences of failure, risk-based optimization of mitigation measures, methods for evaluating consequence reduction, and methods for optimizing risk reduction.

The Notice did not specify what “formal procedures” were required, either by the regulation or by ASME Standard, section 5, nor did PHMSA produce any evidence or arguments to rebut the evidence presented by Gulf South. Therefore, after considering all of the evidence, I find that there is insufficient evidence to support the allegation that Respondent violated § 192.935(a). Accordingly, I order that Item 18 be withdrawn.

Item 19: The Notice alleged that Respondent violated 49 C.F.R. § 192.935(a), as quoted above, by failing to evaluate several HCA segments to identify appropriate and required P&M measures.

Respondent submitted an identical response for this Item as it did for Item 18. However, the substance of this allegation is different than Item 18. The regulation states that “an operator must base the additional measures on the threats the operator has identified to each pipeline segment.” Respondent’s resubmission of its procedures in response to an allegation about completion of the required evaluations does not refute PHMSA’s allegation. Respondent provided no evidence to show that it had completed the evaluations of the information gathered during the assessment of all pipeline segments that were necessary to identify appropriate P&M measures. Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 192.935(a) by failing to conduct evaluations for several HCA segments to identify appropriate P&M measures.

Item 20: The Notice alleged that Respondent violated 49 C.F.R. § 192.935(c), which states:

§ 192.935 What additional preventive and mitigative measures must an operator take?

(a)

(c) *Automatic shut-off valves (ASV) or Remote control valves (RCV).* If an operator determines, based on a risk analysis, that an ASV or RCV would be an efficient means of adding protection to a high consequence area in the event of a gas release, an operator must install the ASV or RCV. In making that determination, an operator must, at least, consider the following factors--swiftness of leak detection and pipe shutdown capabilities, the type of gas being transported, operating pressure, the rate of potential release, pipeline profile, the potential for ignition, and location of nearest response personnel.

The Notice alleged that Respondent violated 49 C.F.R. § 192.935(c) by failing to have a documented risk analysis procedure to determine if automatic shut-off valves or remote control valves should be installed.

In its Supplemental Response, Gulf South submitted subsections 8.1, 8.2, 8.6, 8.7, and 8.8 of its IMP to describe its approach to risk mitigation. Subsection 8.1, *Additional Preventative and Mitigative Measures* (§192.935), included a table listing various P&M measures that it considered, including installation of ASVs and RCVs. In the same section, the IMP stated that “the following factors have been considered in prescribing prevention and mitigation measures, when evaluating risk reduction by use of automatic shut off valves or remote control valves...” and it set out a bulleted list of the same factors in the regulation.

Finally, in the argument portion of its Supplemental Response, Gulf South contended that its risk mitigation methodology focused more on prevention of failures than on mitigation of failure consequences. It cited various studies indicating that shorter valve spacing and/or rapid closing mainline valves would not necessarily reduce injuries or fatalities, as these generally occurred at the moment of and immediately after pressure release. Respondent did not attach copies of the articles it had cited from the Gas Research Institute or the Pipeline Research Council International.

After considering all of the evidence, I find that Respondent did consider the use of ASVs and RCVs, as required by the regulation, but determined that they would not be an efficient means of adding protection to HCAs in the event of a gas release. Accordingly, I order that this item be withdrawn.

Item 21: The Notice alleged that Respondent violated 49 C.F.R. § 192.937(b), which states:

§ 192.937 What is a continual process of evaluation and assessment to maintain a pipeline's integrity?

(a)

(b) *Evaluation.* An operator must conduct a periodic evaluation as frequently as needed to assure the integrity of each covered segment. The periodic evaluation must be based on a data integration and risk assessment of the entire pipeline as specified in § 192.917. For plastic transmission pipelines, the periodic evaluation is based on the threat analysis specified in 192.917(d). For all other transmission pipelines, the evaluation must consider the past and present integrity assessment results, data integration and risk assessment information (§ 192.917), and decisions about remediation (§ 192.933) and additional preventive and mitigative actions (§ 192.935). An operator must use the results from this evaluation to identify the threats specific to each covered segment and the risk represented by these threats.

The Notice alleged that Respondent violated 49 C.F.R. § 192.937(b) by failing to have procedures and documentation requirements for performing periodic evaluations based on data integration and risk assessment of its entire pipeline.⁴¹ Specifically, it alleged that Gulf South’s IMP process for conducting periodic evaluations did not consider “past and present integrity assessment results, data integration, risk assessment information, decisions about remediation, and additional preventive and mitigative actions.”

⁴¹ This Item also alleged a failure to actually perform the required evaluations. Since Item 22 includes the same allegation, the discussion will be combined under Item 22.

At the hearing and in its Supplemental Response, Gulf South argued that its IMP did include procedures for integrating data from its entire pipeline system, for refreshing the database regularly, and for requiring that the risk assessment model be run annually. It submitted subsections 4.7, 6.5.1, and 6.5.2 of its IMP to support its argument.

Subsection 4.7 states that the risk database will be refreshed with updated pipeline variables on “a regular basis.” The updated pipeline variables could result from an integrity assessment or completed mitigative or preventive actions. It provides that such information will be used to recalculate the risk assessment, which may require changes to the BAP. Subsection 6.5.1 states that a “re-evaluation of risk on a system-wide basis for all covered segments shall be conducted at least once a year to ensure that the assessed threats and risk magnitudes that are assigned are consistent with the most updated data.” It further mentions risk data, risk changes, risk calculation, risk profile, risk analysis, risk drivers, and risk results. It states that changes in risk may warrant a re-prioritization of the reassessment schedule.

Subsection 6.5.2 consists of a single paragraph that refers the reader to various sections of the document specifying reassessment intervals and methodology.

While the cited sections address some of the basic elements in § 192.937(b) for the conduct of periodic evaluations, they do not indicate that remediation actions will be considered in the risk evaluation, as required by the regulation. Furthermore, even for the listed items, the sections do not adequately set forth how Gulf South actually considers “past and present integrity assessments,” how it considers decisions about remediation, or how it considers “additional preventative and mitigative actions” to identify threats specific to each pipeline segment, nor do any of the sections contain documentation requirements for the annual risk assessment. Therefore, the cited sections do not comply with the regulation.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 192.937(b) by failing to have procedures for performing periodic evaluations based upon data integration and risk assessment of its entire pipeline.

Item 22: The Notice alleged that Respondent violated 49 C.F.R. § 192.937(b), as quoted above, by failing to conduct periodic evaluations as frequently as needed to ensure the integrity of each pipeline segment. Specifically, it alleged that Gulf South did not conduct the yearly evaluations required in subsection 6.5.1 of its IMP for the baseline assessments that Respondent reported as complete. Subsection 6.5.1, *Periodic Evaluations – Data and Risk Reviews*, requires a reevaluation of risk on a system-wide basis for all covered segments, based on newly available information. Risk prioritization and the assessment schedule must be adjusted as necessary.

In its Supplemental Response, Gulf South contended that “[i]f the annual review of risk results and other information demonstrate the need for a different reassessment schedule, the reassessment interval will be updated accordingly.” However, the company provided no statement or documentation showing that it had actually conducted any annual periodic evaluations or what the results were. Because it only cited its IMP, Gulf South’s response did not address PHMSA’s allegation that it had failed to actually complete the required yearly evaluations.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 192.937(b) by failing to conduct or document periodic evaluations of each pipeline segment as frequently as required by subsection 6.5.1 of its own IMP.

Item 23: The Notice alleged that Respondent violated 49 C.F.R. § 192.937(b), as quoted above, by failing to have procedures and documentation requirements in place to use completed periodic evaluations to determine if new information warranted any change in reassessment intervals or methods. As stated in Item 21 above, Respondent's procedures do not ensure the thorough evaluation of assessment results. They also fail to include documentation requirements for the use of evaluations that have been conducted. Documentation of such reviews is necessary to fulfill their purpose of ensuring accurate and up-to-date risk assessments and prioritization.

After considering the evidence, I find that Respondent violated 49 C.F.R. § 192.937(b), as quoted above, by failing to have documentation requirements for periodic evaluations.

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

ASSESSMENT OF PENALTY

Under 49 U.S.C. § 60122, Respondent is subject to an administrative 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.

In determining the amount of a civil penalty under 49 U.S.C. § 60122 and 49 C.F.R. § 190.225, I must 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 damages, and such other matters as justice may require. The Notice proposed a total civil penalty of \$183,000 for the violations cited above.

Item 4: The Notice proposed a civil penalty of \$16,000 for Respondent's violation of 49 C.F.R. § 192.911(l), for failing to have a comprehensive QA/QC process, as required by ASME Standard, section 12. As discussed above, I found that Gulf South did not include an adequate QA/QC process for all but one of the seven quality-control requirements set out in the ASME Standard. Without proper quality assurance procedures, it is impossible to implement effectively the enhanced protections required for HCAs and to reduce the consequences of pipeline failures on public safety and the environment. On the other hand, the gravity of the violation is diminished because Gulf South did meet one of the seven quality-control requirements. Accordingly, having reviewed the record and considered the assessment criteria, including the gravity of the violation, the culpability of Respondent, and the company's history of prior offenses, I hereby reduce the proposed civil penalty for violation of § 192.911(l) to \$10,800.

Item 10: The Notice proposed a civil penalty of \$16,000 for Respondent's violation of 49 C.F.R. § 192.917(b), for failing to explicitly analyze and review each covered segment of its system using the data sets specified in Appendix A to the AMSE Standard, as summarized in Table 1 of ASME Standard, section 4, and the seven risk factors listed in § 192.917(b). The Notice also alleged that certain required data elements were excluded without explanation. As noted above, I found that while Gulf South's IMP enumerated the various data sets and factors required by the regulation, the company failed to actually evaluate such data to identify and prioritize threats. Without properly identifying and analyzing the appropriate data on each covered segment, it is possible that particular threats could go undetected, thus jeopardizing public safety and the environment. Accordingly, having reviewed the record and considered the assessment criteria, including the gravity of the violation, the culpability of Respondent, and the company's history of prior offenses, I assess Respondent a civil penalty of \$16,000 for violation of § 192.917(b).

Item 11: The Notice proposed a civil penalty of \$16,000 for Respondent's violation of 49 C.F.R. § 192.917(c), for failing to have proper procedures to conduct risk assessments for identifying threats to pipeline integrity. Specifically, it alleged that Gulf South failed to address how risk data were used to plan and evaluate mitigation, integrity inspection methodology, and resource allocation according to the six risk assessment objectives in ASME Standard, subsection 5.3. As noted above, I found that Respondent's IMP failed to include an adequate discussion or analysis of the six specific objectives outlined in the standard. Without properly addressing how risk data would be used to accomplish the goals of its IMP, it is possible that the company's program would not accomplish the goals of the regulation, thus compromising public safety and the environment. Accordingly, having reviewed the record and considered the assessment criteria, including the gravity of the violation, the culpability of Respondent, and the company's history of prior offenses, I assess Respondent a civil penalty of \$16,000 for violation of § 192.917(c).

Item 14: The Notice proposed a civil penalty of \$16,000 for Respondent's violation of 49 C.F.R. § 192.921(a) because the company's BAP failed to select the assessment method or methods best suited to address the threats identified in particular covered pipe segments. The Notice based this allegation on the fact that Respondent had not performed a caliper run to address potential third-party damage, which its own risk assessment had identified as a primary threat. As noted above, I found that the company had not selected the proper assessment tools according to its own ILI manual and as specified in ASME Standard, subsection 6.2. Gulf South's assessment processes fail to ensure that inspection tools are properly selected and used thus reducing the effectiveness of its in-line inspections and jeopardize public safety and the environment. Accordingly, having reviewed the record and considered the assessment criteria, including the gravity of the violation, the culpability of Respondent, and the company's history of prior offenses, I assess Respondent a civil penalty of \$16,000 for violation of § 192.921(a).

Item 19: The Notice proposed a civil penalty of \$11,000 for Respondent's violation of 49 C.F.R. § 192.935(a), for failing to evaluate several HCA segments to identify appropriate and required P&M measures. As noted above, I found that Gulf South had failed to properly identify threats to those particular segments so that appropriate P&M measures could be developed. Without properly identifying and implementing appropriate P&M measures, Gulf South is not in

a position to adequately prevent failures and mitigate the consequences of potential accidents. Accordingly, having reviewed the record and considered the assessment criteria, including the gravity of the violation, the culpability of Respondent, and the company's history of prior offenses, I assess Respondent a civil penalty of \$11,000 for violation of § 192.935(a).

Item 22: The Notice proposed a civil penalty of \$16,000 for Respondent's violation of 49 C.F.R. § 192.937(b), for failing to conduct baseline assessment evaluations as frequently as needed to ensure the integrity of each pipeline segment and as required by subsection 6.5.1 of Respondent's IMP. As noted above, I found that Gulf South had failed to actually conduct the required annual evaluations. Without conducting such assessment reviews, it is possible that the company established inappropriate reassessment methods and schedules, which could adversely affect public safety and the environment. Accordingly, having reviewed the record and considered the assessment criteria, including the gravity of the violation, the culpability of Respondent, and the company's history of prior offenses, I assess Respondent a civil penalty of \$16,000 for violation of § 192.937(b).

In summary, having reviewed the record and considered the assessment criteria for each of the Items cited above, I assess Respondent a total civil penalty of **\$85,800**.

Payment of the civil penalty must be made within 20 days of service. Federal regulations (49 C.F.R. § 89.21(b)(3)) require such payment to 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 directed to: Financial Operations Division (AMZ-341), Federal Aviation Administration, Mike Monroney Aeronautical Center, P.O. Box 269039, Oklahoma City, Oklahoma 73125. The Financial Operations Division telephone number is (405) 954-8893.

Failure to pay the \$85,800 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 1-23 in the Notice for violations of 49 C.F.R. §§ 192.605(a); 192.817(a); 192.909(a); 192.911(k); 192.911(l); 192.911(m); 192.915(b) and (c); 192.917(a), (b), (c), and (e); 192.919(b); 192.921(a), (f), and (g); 192.933(c); 192.935(a) and (c); and 192.937(b). I have withdrawn several of these items. The remaining compliance order requirements are set out below.

Under 49 U.S.C. § 60118(a), each person who engages in the transportation of gas 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. Respondent shall:

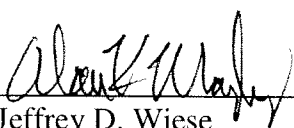
1. With respect to the violation of § 192.909(a) (**Item 2**), Respondent must develop and implement appropriate MOC procedures to cover the issues addressed.
2. With respect to the violation of § 192.911(k) (**Item 3**), Respondent must develop and implement appropriate MOC procedures and documentation requirements to cover the issues addressed.
3. With respect to the violation of § 192.911(l) (**Item 4**), Respondent must develop and implement appropriate QA/QC procedures to cover the issues addressed.
4. With respect to the violation of § 192.911(m) (**Item 6**), Respondent must develop and implement appropriate communication procedures to cover the issues addressed.
5. With respect to the violation of § 192.915 (**Item 7**), Respondent must develop and implement appropriate training procedures to cover the issues addressed.
6. With respect to the violation of § 192.917(a) (**Item 8**), Respondent must develop and implement appropriate threat assessment procedures to consider all potential interacting threats.
7. With respect to the violation of § 192.917(b) (**Item 9**), Respondent must develop and implement appropriate data gathering and integration procedures, as required under ASME Standard, section 4.
8. With respect to the violation of § 192.917(b) (**Item 10**), Respondent must develop and implement appropriate data gathering and integration procedures to cover the issues addressed.
9. With respect to the violation of § 192.917(c) (**Item 11**), Respondent must develop and implement appropriate risk assessment procedures to cover the issues addressed.
10. With respect to the violation of § 193.921(a) (**Item 14**), Respondent must review the discussed BAP of Index 130 and all other prior assessments and determine and document their ability to be included as prior assessments. Gulf South must develop and implement procedures to cover the issues addressed.
11. With respect to the violation of § 192.935(a) (**Item 19**), Respondent must conduct and implement appropriate P&M evaluations to cover the issues addressed.
12. With respect to the violation of § 192.937(b) (**Item 21**), Respondent must develop and implement procedures that ensure the completion of comprehensive periodic evaluations to cover the issues addressed.
13. With respect to the violation of § 192.937(b) (**Item 22**), Respondent must conduct the periodic evaluations to cover the issues addressed.

14. With respect to the violation of § 192.937(b) (**Item 23**), Respondent must develop and implement documentation requirements to ensure that new information gained from periodic evaluations is utilized to determine whether reassessment intervals or methods must be changed.
15. Gulf South must address the issues detailed in this Compliance Order within 90 days after receipt of a Final Order and submit to R. M. Seeley, Director, Southwest Region, Pipeline and Hazardous Materials Safety Administration.
16. Gulf South is requested to maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to R.M. Seeley, Director, Southwest Region, Pipeline and Hazardous Materials Safety Administration. Costs shall be reported in two categories: 1) total cost associated with reparation/revision of plans, procedures, studies, and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.

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

Failure to comply with this Order may result in 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 sent to: Associate Administrator, Office of Pipeline Safety, PHMSA, 1200 New Jersey Avenue, SE, East Building, 2nd Floor, Washington, DC 20590, with a copy sent to the Office of Chief Counsel, PHMSA, at the same address. PHMSA will accept petitions received no later than 20 days after receipt of service of this Final Order by the Respondent, provided they contain a brief statement of the issue(s) and meet all other requirements of 49 C.F.R. § 190.215. The filing of a petition automatically stays the payment of any civil penalty assessed. Unless the Associate Administrator, upon request, grants a stay, all other terms and conditions of this Final Order are effective upon service in accordance with 49 C.F.R. § 190.5.

for: 
 Jeffrey D. Wiese
 Associate Administrator
 for Pipeline Safety

NOV 2 2011

Date Issued