



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

1200 New Jersey Avenue, SE
Washington, D.C. 20590

FEB 28 2013

Mr. Ron McClain
Vice President, Operations
Plantation Pipe Line Company
Kinder Morgan Energy Partners, L.P.
500 Dallas Street, Suite 1000
Houston, TX 770022

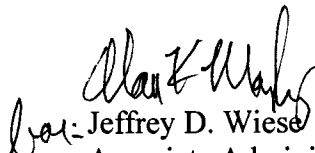
Re: CPF No. 2-2011-5009

Dear Mr. McClain:

Please find enclosed the Final Order issued in the above-referenced case. It makes a finding of violation and specifies actions that need to be taken by Plantation Pipe Line Company to comply with the pipeline safety regulations. The Final Order withdraws the proposed civil penalty. When the terms of the compliance order have been completed, as determined by the Director, Southern Region, this enforcement action will be closed. Service of the Final Order by certified mail is effective upon the date of mailing as provided under 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,


Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

Enclosure

cc: Ms. Catherine D. Little, Hunton & Williams LLP, Bank of America Plaza, Suite 4100
600 Peachtree Street, N.E., Atlanta, GA 30308
Mr. Wayne Lemoi, Director, Southern Region, OPS
Mr. Alan Mayberry, Deputy Associate Administrator for Field Operations, OPS

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

_____)
In the Matter of)

Plantation Pipe Line Company,)

Respondent.)
_____)

CPF No. 2-2011-5009

FINAL ORDER

On August 15–18, 2011, pursuant to 49 U.S.C. § 60117, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), conducted an on-site pipeline safety inspection of the Bremen-Knoxville pipeline (Line 8KX) operated by Plantation Pipe Line Company (Plantation or Respondent). Plantation is a subsidiary of Kinder Morgan Energy Partners, L.P. and operates approximately 3,100 miles of pipeline transporting refined petroleum products from Louisiana to the Washington, D.C. area.¹

As a result of the inspection, the Director, Southern Region, OPS (Director), issued a Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order (Notice) to Respondent by letter dated October 20, 2011. In accordance with 49 C.F.R. § 190.207, the Notice alleged that Plantation violated 49 C.F.R. § 195.406 and proposed a civil penalty of \$21,200 for the alleged violation. The Notice further proposed certain corrective action to remediate the alleged violation. The Notice included an additional warning item.

Plantation responded to the Notice by letter dated November 30, 2011. Respondent contested the alleged violation and requested a hearing. On June 18, 2012, Respondent submitted pre-hearing materials that included additional evidence. In accordance with 49 C.F.R. § 190.211, a hearing was held on June 27, 2012, in Atlanta, Georgia, before the Presiding Official from the Office of Chief Counsel, PHMSA. After the hearing, Respondent provided a post-hearing submission dated July 27, 2012.

FINDING OF VIOLATION

The Notice alleged in **Item 1** that Respondent violated 49 C.F.R. § 195.406(a)(2), which states:

¹ This information is reported by Plantation for calendar year 2011 pursuant to 49 C.F.R. § 195.49.

§ 195.406 Maximum operating pressure.

(a) Except for surge pressures and other variations from normal operations, no operator may operate a pipeline at a pressure that exceeds any of the following . . .

(2) The design pressure of any other component of the pipeline.

The Notice alleged that Respondent violated 49 C.F.R. § 195.406(a)(2) by operating its pipeline at a pressure that exceeded the design pressure of a component of the pipeline. Specifically, the Notice alleged that Respondent operated the Bremen-Knoxville pipeline (Line 8KX) with a maximum operating pressure (MOP) of 1480 psig even though several mainline valves on the pipeline had a design pressure of only 1440 psig.

In its written submissions and at the hearing, Respondent acknowledged that the five mainline valves at issue were purchased in 1985 with an original design pressure of 1440 psig established by the manufacturer. Respondent contended, however, that it had established an independent design pressure of 1480 psig in 1989, as permitted by a regulatory interpretation issued by PHMSA's predecessor agency in 1981. Respondent produced company records and consensus standards from 1988 and 1989 to support its contention that it had used standard ANSI B16.5 (1981), which listed a design pressure rating of 1480 psig for these types of valves, and then verified that the valves could be safely operated at 1480 psig by performing a hydrostatic test.

Respondent produced a written plan for the test it had prepared in 1988, which Respondent explained was intended to support a modification of MOP to 1480 psig. According to Respondent, the written plan demonstrated that Plantation "utilized sound engineering principles in relying on the recognized consensus standard ANSI B16.5 for the appropriate pressure rating of the Class 600 flanged fittings, in order to develop the parameters of the hydrotest."² In May 2012, Respondent communicated by email with the manufacturer of the valves and received confirmation that the valves are "suitable for 1480 psig service."³ Notwithstanding its belief that MOP never exceeded design pressure, Respondent agreed to reduce MOP to 1440 psig pending the outcome of this proceeding.

At the hearing, OPS acknowledged that under the 1981 interpretation, an operator may establish an independent design pressure that is different than the pressure rating established by the manufacturer. After reviewing Respondent's documentation at the hearing, however, OPS opposed Respondent's claim that it had performed actions necessary to establish an independent design pressure for the valves in question. Specifically, the Director asserted that Respondent had performed a routine hydrostatic test for purposes of establishing MOP—a test that under the regulations was not intended to establish an independent design pressure for the valves.

The applicable regulatory requirements are as follows. Section 195.406(a)(2) states that MOP may not exceed the design pressure of any pipeline component, such as a valve. The regulations

² Plantation Post-hearing Submission, at 5.

³ Plantation Post-hearing Submission, Exhibit 3.

in Part 195, Subpart C (“Design Requirements”), do not specify a precise formula for calculating design pressure for valves like they do for the design pressure of line pipe.⁴ Rather, design requirements for valves are contained in § 195.116, which states that each valve must be, among other things: of sound engineering design; hydrostatically shell tested and hydrostatically seat tested without leakage to at least the requirements set forth in Section 11 of API Standard 6D (incorporated by reference, *see* § 195.3); and marked with the class designation or maximum working pressure to which the valve may be subjected.⁵

The hydrostatic shell and seat tests required by § 195.116 to establish maximum working pressure, or design pressure, are based on the class and size of the particular valve.⁶ For example, Section 11 of API Standard 6D (2009) states that the hydrostatic shell test of an eight-inch valve must be at least 1.5 times the pressure rating determined in accordance with ASME B16.34 (2004) for at least five minutes.⁷ The hydrostatic seat test must be at least 1.1 times the rating under ASME B16.34 for at least five minutes. These tests are required to confirm that each valve to be installed on a pipeline will be safe to operate at the design pressure established by the manufacturer and marked on the valve.⁸

At the hearing, it was not disputed that the manufacturer of the five valves in question had hydrostatically shell and seat tested them to the specifications necessary to establish a design pressure of 1440 psig in accordance with § 195.116. Since the original design pressure of each valve was 1440 psig, § 195.406(a)(2) prohibits MOP from exceeding 1440 psig unless the operator had independently established a higher design pressure for the valves.

In 1981, PHMSA’s predecessor agency, the Materials Transportation Bureau (MTB) issued a written interpretation of § 195.406(a)(2) concerning the design pressure of components for calculating MOP. In response to a question about whether the regulation permits operators to use a design pressure that exceeds the pressure rating established by the manufacturer of a valve, MTB stated that the manufacturer’s pressure rating is not necessarily an implied limit. The interpretation continued:

Although sound design principles may require that a manufacturer’s pressure rating and applicable factors in consensus standards be considered in determining the design pressure of a component, a pipeline operator is free under Part 195 to use equally sound principles to derive an independent design pressure.

⁴ Under § 195.106, the design pressure for pipe is determined in accordance with the formula: $P=(2 St/D) \times E \times F$.

⁵ There has been no allegation that Respondent violated § 195.116, but the requirement is relevant to determining whether operating pressure exceeded the design pressure of the valves in question.

⁶ Section 11 states that valves must be tested “prior to shipment.”

⁷ ASME B16.34 (2004) currently recognizes a pressure rating for Class 600 valves of 1480 psig. At the hearing, witnesses commented that in the 1980s, API Standard 6D rated Class 600 valves at 1440 psig, while other standards rated them at 1480 psig. Sometime during the 1990s, API Standard 6D began rating Class 600 valves at 1480 psig.

⁸ Sections 195.406(a)(2) and 195.116 have not changed substantively since the 1980s, except that more recent versions of API Standard 6D have been incorporated.

MTB noted that although there is no regulation explicitly stating the actions required to establish an independent design pressure above a manufacturer's rating, the appropriateness of the tests or calculations used by the operator to determine a safe design pressure would be judged by the agency according to "sound engineering principles and practices." MTB stated further that "[i]nclusion of particular principles or practices in a generally recognized consensus standard, regardless of whether the document is referenced in Part 195, would be a heavy factor to weigh in making a judgment about the appropriateness of an operator's tests or calculations."

At the hearing, the parties disagreed as to whether Respondent had used "equally sound [design] principles" in 1989 to establish an independent design pressure for the valves.

Respondent contended that the regulations in Part 195 are performance-based requirements and that neither the regulation nor the 1981 interpretation define the term "equally sound [design] principles" for purposes of deriving an independent design pressure. Therefore, Respondent argued, the performance-based requirements warrant deferring to the operator's engineering judgment. Respondent contended that it had used sound engineering principles and practices consistent with generally recognized consensus standards in 1989 when it relied on ANSI B16.5, which listed a pressure rating of 1480 psig for Class 600 flanged valves. Respondent then verified the valves could safely be operated at 1480 psig using a hydrostatic test.⁹

Respondent also argued against finding that "equally sound [design] principles" means the same engineering analyses performed at the time of manufacture. Respondent noted that Section 11 of API Standard 6D only requires hydrostatic shell and seat testing "prior to shipment" by the manufacturer. Respondent contended that operators are limited in their ability to perform certain testing of valves after installation.

Based on the evidence that has been presented in the record and at the informal hearing, I agree that when establishing an independent design pressure for valves using "equally sound [design] principles," it may not always be possible to employ precisely the same methods required under § 195.116 for establishing the original design pressure prior to shipment. For example, both parties at the hearing acknowledged that performing a hydrostatic seat test, with the valves empty and in the closed position, may be difficult for valves installed on an operational pipeline.

Notwithstanding, I find that "equally sound" methods must be as close as practicable to the methods required under the regulation for establishing the original design pressure, unless the operator can demonstrate an alternative method provides an equivalent level of safety. This conclusion is warranted because the regulations do not permit a lower threshold of safety for valves that will be allowed to operate at a higher pressure than originally intended. As § 195.116 demonstrates, operators may not rely solely on the calculations and formulas supporting a consensus standard rating to establish the maximum design pressure of a valve. The applicable regulations require further testing of "each valve" to ensure the valve is safe at the rating selected.

⁹ The hydrostatic test performed in 1989 was with the valves in the open position, also referred to as a shell test.

In the present case, it was prudent for Respondent to rely on a consensus standard rating for the Class 600 flanged valves. The general suitability of Class 600 valves, as later confirmed by the manufacturer, was certainly relevant to the establishment of an independent design pressure. But a consensus standard rating is not a sole basis for a valve's design pressure. Employing "equally sound [design] principles" to establish an independent design pressure, Respondent should have, at a minimum, performed a hydrostatic shell test of the valves in accordance with design requirements in effect at the time, that is, a hydrostatic test of at least 1.5 times the intended rating for at least five minutes.¹⁰

The hydrostatic test performed by Respondent to support a modification of MOP did not reach or sustain 1.5 times the rating of 1480 psig, or 2220 psig, for at least five minutes at each valve. According to the written test plan, the range of proposed test pressures at some locations were at or above 2220 psig, but some valves had a proposed test pressure that ranged as low as 1850 psig, which is only 1.25 times the intended valve rating.¹¹ In addition, documentation submitted by Respondent shows that actual test pressure on the valves "ranged between 1970 psig minimum to a 2107 psig maximum" for a 12.53-hour period.¹² The test performed by Respondent was not sufficient to establish an independent design pressure because the regulations require, at a minimum, testing of valves to a higher pressure.

For the reasons stated above, I decline to find that Respondent established an independent design pressure of 1480 psig in 1989 for the valves in question. Since the design pressure of each valve was 1440 psig, § 195.406(a)(2) prohibits MOP from exceeding that pressure.

Accordingly, based upon a review of all of the evidence, I find that Respondent violated 49 C.F.R. § 195.406(a)(2) by operating its pipeline with an MOP of 1480 psig, which exceeded the design pressure of several valves on the pipeline.

For the reasons set forth below, this finding of violation will not be considered a prior offense 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.¹³

¹⁰ Section 5.2 of API Standard 6D (1977), incorporated by reference in § 195.116 (1989).

¹¹ See Plantation Pre-hearing Submission, Exhibit B.

¹² Response, Letter from Milbar Hydro-test Inc. to Plantation dated Aug. 31, 1989.

¹³ Subsequent to the inspection in this case, the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, Pub. L. No. 112-90, § 2(a), 125 Stat. 1905, increased the civil penalty liability for a pipeline safety violation to \$200,000 per violation for each day up to a maximum of \$2,000,000 for a 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 civil penalty of \$21,200 for operating a pipeline at a pressure that exceeded the design pressure of a component in violation of § 195.406(a)(2).

With regard to the nature, circumstances, and gravity of the violation, operating a pipeline at a pressure exceeding the design pressure of a valve could potentially result in failure of the valve. This could cause a leak or rupture and escape of hazardous liquids, which threatens persons, property, and the environment. Fortunately, in this case there is no indication that one of the valves experienced a failure during the period from 1989 to 2011.

With regard to culpability and good faith, I find as alleged that Respondent was cognizant of the regulatory requirement and made an effort to comply with that requirement by consulting a consensus standard for the rating of Class 600 flanged valves and performing a hydrostatic test of the entire pipeline based on that rating.¹⁴

With regard to history of prior offenses, the Violation Report noted that two final orders were issued to Respondent in 2009. The company did not assert that the proposed penalty would have an effect on its ability to continue doing business.

Under other matters as justice may require, I have considered Respondent's argument that it should not be punished for failing to comply with a definition of sound engineering principles that had not been previously articulated.

Respondent's contention that an agency may not announce or clarify regulatory interpretations through enforcement is rejected. Agencies have discretion to set forth regulatory interpretations by rulemaking or by adjudication.¹⁵ With respect to the civil penalty in this case, however, PHMSA finds it would not be appropriate to penalize Respondent for a violation of a design standard that, while explicit in the regulations for valves at the time of manufacture, was less than clear for valves already installed on an operational pipeline. For example, Section 5.1 of API Standard 6D (1977), incorporated by reference in § 195.116 (1989), specified that certain testing shall be performed "prior to shipment from the manufacturer's works." While it is

¹⁴ See Pipeline Safety Violation Report at 5-6 (Oct. 21, 2011).

¹⁵ *NLRB v. Bell Aerospace Co.*, 416 U.S. 267, 292-94 (1974) (finding that prior case law dictates that the agency is "not precluded from announcing new principles in an adjudicative proceeding and that the choice between rulemaking and adjudication lies in the first instance within the [agency's] discretion") (citing *SEC v. Chenery Corp.*, 332 U.S. 194, 202 (1947) and *NLRB v. Wyman-Gordon Co.*, 394 U.S. 759 (1969)).

reasonable to conclude that "equally sound [design] principles" for establishing an independent design pressure must be as close as practicable to the methods for establishing the original design pressure to ensure an equivalent level of safety, that requirement was not stated with enough clarity in the regulation or the 1981 interpretation to warrant a civil penalty here. The present case appears to be the first instance in which PHMSA has adjudicated this particular issue.

Accordingly, having reviewed the record and considered the assessment criteria, I withdraw the proposed civil penalty. In addition, the violation will not be considered a prior offense in any subsequent enforcement action taken against Respondent.

COMPLIANCE ORDER

The Notice proposed a compliance order with respect to the violation cited above. Under 49 U.S.C. § 60118(a), each person who engages in the transportation of hazardous liquids by pipeline or who owns or operates a pipeline facility is required to comply with the applicable safety standards established under chapter 601.

Pursuant to the authority of 49 U.S.C. § 60118(b) and 49 C.F.R. § 190.217, Respondent is ordered to take the following actions to ensure compliance with the pipeline safety regulations applicable to its operations:

1. Prepare a plan to confirm the maximum operating pressure (MOP) of the Bremen-Knoxville Line (Line 8KX), with the actions required by the plan to be completed within 60 days of the Director's approval of the plan. The plan must meet applicable pipeline safety requirements in 49 C.F.R. Part 195, including § 195.406.
2. Submit the plan to the Director, Southern Region, for review and approval within 60 days of the receipt of this Order.
3. Maintain an MOP on Line 8KX that is no higher than 1440 psig unless and until the Director has approved the plan submitted pursuant to this Order and Plantation has completed actions pursuant to the plan that confirm a higher MOP.
4. It is requested that Plantation maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to the Director, Southern Region. It is requested that these costs be reported in two categories: (1) total cost associated with preparation/revision of plans, procedures, studies and analyses; and (2) total cost associated with replacements, additions, and other changes to pipeline infrastructure.

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

Failure to comply with this Order may result in the administrative assessment of civil penalties not to exceed \$200,000 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.

WARNING ITEM

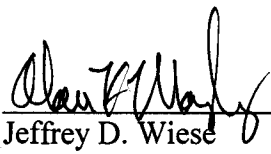
With respect to **Item 2**, the Notice alleged a probable violation of Part 195 and specifically considered this to be a warning item. The warning was for:

49 C.F.R. § 195.410(a)(1) – Respondent's alleged failure to have line markers over buried pipelines at each public road crossing, at each railroad crossing, and in sufficient number along the remainder of the buried line so that its location is accurately known. The Notice alleged there were no line markers along the right-of-way at the Southern Railroad crossing, and markers were not in sufficient numbers to identify the location of the pipeline upstream and downstream of Little Armuchee Creek or Highway 11 (County Road 331).

If a violation of this provision is identified in the future, Respondent may be subject to additional enforcement.

Under 49 C.F.R. § 190.215, Respondent may submit a petition for reconsideration of this Final Order to the Associate Administrator for Pipeline Safety, PHMSA, 1200 New Jersey Avenue SE, East Building, 2nd Floor, Washington, DC 20590, no later than 20 days after receipt of the Final Order by the Respondent. Any petition submitted must contain a brief statement of the issue(s) and meet all other requirements of 49 C.F.R. § 190.215. The terms of the order, including the corrective action, remain in effect upon the filing of a petition, unless the Associate Administrator, upon request, grants a stay.

The 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

FEB 28 2013

 Date Issued