



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

MAY 03 2018

1200 New Jersey Avenue SE
Washington DC 20590

Mr. Thomas A. Martin
President, Natural Gas Pipeline Group
Kinder Morgan, Inc.
1001 Louisiana Street, Suite 1000
Houston, TX 77002

Re: CPF No. 4-2016-1004

Dear Mr. Martin:

Enclosed please find the Final Order issued in the above-referenced case. It makes findings of violation, assesses a reduced civil penalty of \$62,900, and finds that the specified actions to be taken by Tennessee Gas Pipeline Company, a subsidiary of Kinder Morgan, Inc., to comply with the pipeline safety regulations have been completed. The penalty payment terms are set forth in the Final Order. When the civil penalty has been paid, 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,


Alan K. Mayberry
Associate Administrator
for Pipeline Safety

Enclosure

cc: Director, Southwest Region, Office of Pipeline Safety, PHMSA
Ms. Jessica Toll, Esq., Assistant General Counsel, Kinder Morgan,
370 Van Gordon Street, Lakewood, CO 80228
Ms. Catherine D. Little, Esq., Hunton & Williams, Bank of America Plaza,
Suite 4100, 600 Peachtree Street, N.E., Atlanta, GA 30308
Mr. Kenneth W. Grubb, Chief Operating Officer, Tennessee Gas Pipeline Company,
1001 Louisiana Street, Houston, TX 77002-5089

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

¹ Pipeline Safety Violation Report (Violation Report), (May 15, 2015) (on file with PHMSA), at 1; https://www.kindermorgan.com/business/gas_pipelines/east/TGP (last accessed Dec. 8, 2017).

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. § 192.481(a), which states:

§ 192.481 Atmospheric corrosion control: Monitoring.

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

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

The Notice alleged that Respondent violated 49 C.F.R. § 192.481(a) by failing to inspect each pipeline or portion of pipeline exposed to the atmosphere for atmospheric corrosion at least once every 3 calendar years, but with intervals not exceeding 39 months. Specifically, the Notice alleged that TGP's most recent documented atmospheric inspections on pipelines 100-1, 100-2, 100-3, and 100-4 crossing the Brazos River occurred in January of 2011. Respondent did not contest this allegation of violation. Accordingly, based upon a review of all of the evidence, I find that Respondent violated 49 C.F.R. § 192.481(a) by failing to inspect each pipeline or portion of pipeline exposed to the atmosphere for atmospheric corrosion at least once every 3 calendar years, but with intervals not exceeding 39 months.

Item 3: The Notice alleged that Respondent violated 49 C.F.R. § 192.605(a), which states:

§ 192.605(a) 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)...

(6) Maintaining compressor stations, including provisions for isolating units or sections of pipe and for purging before returning to service.

The Notice alleged that Respondent violated 49 C.F.R. § 192.605(a) by failing to follow its written procedures for maintaining the gas detection and alarm equipment at the Cleveland Compressor Station to ensure proper functioning. Specifically, the Notice alleged that testing of the high-level gas detection at 30 to 40% lower explosive limit (LEL) observed by the PHMSA inspector did not trigger operation of the detection system. Respondent did not contest this allegation of violation. Accordingly, based upon a review of all of the evidence, I find that Respondent violated 49 C.F.R. § 192.605(a) by failing to follow its written procedures for maintaining the gas detection and alarm equipment at the Cleveland Compressor Station to ensure proper functioning.

Item 4: The Notice alleged that Respondent violated 49 C.F.R. § 192.613, which states:

§ 192.613 Continuing surveillance.

(a) Each operator shall have a procedure for continuing surveillance of its facilities to determine and take appropriate action concerning changes in class location, failures, leakage history, corrosion, substantial changes in cathodic protection requirements, and other unusual operating and maintenance conditions.

(b) If a segment of pipeline is determined to be in unsatisfactory condition but no immediate hazard exists, the operator shall initiate a program to recondition or phase out the segment involved, or, if the segment cannot be reconditioned or phased out, reduce the maximum allowable operating pressure in accordance with §192.619 (a) and (b).

The Notice alleged that Respondent violated 49 C.F.R. § 192.613 by failing to initiate a program to recondition or phase out certain pipeline segments determined to be in unsatisfactory condition. Specifically, the Notice alleged that TGP failed to take timely corrective action to recondition 11 unsatisfactory items identified in Pipeline Bridge Examination Reports dated January 25 and 27, 2011. Respondent did not contest this allegation of violation. Accordingly, based upon a review of all of the evidence, I find that Respondent violated 49 C.F.R. § 192.613 by failing to initiate a program to recondition or phase out certain pipeline segments determined to be in unsatisfactory condition.

Item 7: The Notice alleged that Respondent violated 49 C.F.R. § 192.805(c), which states:

§ 192.805 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:

(a) ...

(c) Allow individuals that are not qualified pursuant to this subpart to perform a covered task if directed and observed by an individual that is qualified;

The Notice alleged that Respondent violated 49 C.F.R. § 192.805(c) by failing to follow its task specific span of control plan and thereby allowing an individual who was not qualified to perform a covered task to perform that task while not directed and observed by an individual that was qualified. Specifically, the Notice alleged that on numerous shifts during the September 2014 to March 2015 period, TGP had three consoles staffed by controllers, only one of which was qualified exceeding the one-to-one span of control ratio. Respondent did not contest this allegation of violation. Accordingly, based upon a review of all of the evidence, I find that Respondent violated 49 C.F.R. § 192.805(c) by failing to follow its task specific span of control plan and thereby allowing an individual who was not qualified to perform a covered task to perform that task while not directed and observed by an individual that was qualified.

Item 9: 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 conduct periodic evaluations as frequently as needed to assure the integrity of each covered segment based on present data integration and risk assessments. Specifically, the Notice alleged that TGP did not conduct a periodic evaluation or analysis to determine if there was any need for additional preventive and mitigative measures such as automatic or remote shutoff valves following the identification of new high consequence areas (HCAs) along its pipelines that occurred after 2007.

In its Response and at the hearing, TGP contested the allegation, arguing that it complied with the requirement to conduct a periodic evaluation or analysis to determine if there was any need for additional preventive and mitigative measures. TGP acknowledged that additional HCA segments had been newly identified along its pipelines after 2007, but cited § 192.935(c) in arguing that an evaluation and analysis of the need for remote controlled valves (RCVs) and automatic shut off valves (ASVs) was a separate "one time" determination and there was no requirement to update that determination.² TGP cited the existence of two industry studies and

² Closing at 3.

questioned whether RCVs and ASVs could ever be effective for any pipeline segment.³ TGP also produced a 2014 chart indicating, among other things, which of its segments did and did not have RCVs and/or ASVs and contended that this chart evidenced an annual review that it believed satisfied the § 192.937(b) periodic evaluation requirement.⁴

Analysis

The gas pipeline integrity management regulations establish a risk management framework in which pipeline operators are required to conduct initial or baseline risk analyses on pipeline segments that could affect HCAs in the event of a release, and to periodically evaluate the HCA pipeline segments to maintain their integrity. One element of integrity management is determining the need for preventative and mitigative measures to ensure that the potential risks that are present can be appropriately mitigated.⁵

TGP cited § 192.935(c) in arguing that an evaluation and analysis of the need for RCVs and ASVs was a separate one time determination and there was no requirement to update that determination. The issue to be decided is whether this argument can overcome the actual code language of § 192.937(b). While § 192.935 and ASME/ANSI B31.8S referenced within are relevant to the type of analysis used for identifying preventive and mitigative measures, § 192.937(b) is controlling on the issue of whether it is a one time or periodic requirement. This regulation states, in relevant part, “An operator must conduct a *periodic* evaluation as frequently as needed...”⁶ Thus, the relevant language expressly makes this a periodic requirement, not a one-time requirement. In addition, § 192.937(b) references the entirety of § 192.935 with respect to preventative and mitigative measures, not just subsection (c) on RCVs and ASVs. Under subsection (a), preventive and mitigative measures also include, “...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.”⁷

TGP correctly points out that the integrity management rules reflect the premise that each operator’s system is different.⁸ Different pipelines do have different attributes and run through different geographic areas. However, this is precisely why operators are obligated to conduct a risk evaluation, including considering the need for preventive and mitigative measures, on a segment-by-segment basis for every HCA segment. The fact that newly designated covered

³ *Id.*

⁴ Pre-Hearing Submittal, Exhibit 4.

⁵ 49 C.F.R. Part 192, Subpart O.

⁶ 49 C.F.R. 192.937(b).

⁷ 49 C.F.R. § 192.935(a). While the need for RCVs and ASVs is part of the required periodic evaluation of the need for preventative and mitigative measures, the periodic evaluation required by § 192.937(b) is broader than RCVs and ASVs and the entire preventive and mitigative evaluation applies to newly designated covered segments.

⁸ Closing at 2.

segments will need such evaluations under the integrity management rules, a point not in dispute, is simply incompatible with the one-time approach advocated by TGP in this proceeding.

Thus, all covered segments must have an individualized and full evaluation of the need for preventative and mitigative measures, including pipe segments that are newly classified as HCA segments. The regulations do not create an exception under which RCVs and ASVs need not be part of the evaluation when updating and extending it to newly covered segments. As TGP correctly noted, however, studies by Kiefner & Associates and Oak Ridge National Laboratory do cast doubt on the effectiveness of RCVs and ASVs in mitigating the consequences of a typical gas pipeline rupture.⁹ It may well be the case that an operator in Respondent's position is likely to determine that, like the original HCA segments, the installation of RCVs and/or ASVs would not provide additional protection in the event of a release on the newly identified HCA segments. This does not, however, negate the code requirement that the operator undertake the periodic evaluation for its newly identified and uniquely situated covered pipeline segments. As for the 2014 chart indicating which segments did and did not have RCVs and/or ASVs, an annual review or update of this chart is not the same thing as conducting an actual risk analysis that included evaluating the need for preventive and mitigative measures on the newly designated covered segments like the analysis conducted in 2007 for the initial set of covered segments.

Finally, TGP argued that in alleging this violation, OPS is articulating a "new interpretation" of § 192.937(b) that TGP believes is at odds with the Administrative Procedures Act and fair notice principles.¹⁰ TGP's argument on this point, however, is unpersuasive. Including consideration of RCVs and/or ASVs as part of a broader periodic evaluation of the need for preventative and mitigative measures is not an "interpretation" or the creation of a new requirement. It comes from the direct language of § 192.937(b) of the code which, as noted above, unambiguously brings in § 192.935 on preventative and mitigative measures in its entirety and does so as a periodic requirement, not a one-time requirement.

I would emphasize that the determination in this case means only that a broader evaluation of the need for any preventative and mitigative measures, including but not limited to RCVs and/or ASVs, is an integral part of the periodic evaluation requirement of § 192.937(b). It does not presuppose the outcome of such evaluation. In particular, this determination is not intended to drive TGP or any other operator to install RCVs and/or ASVs where they would not provide additional protection to a HCA in the event of a release.

Accordingly, after considering all of the evidence and the legal issues presented, I find that Respondent violated 49 C.F.R. § 192.937(b) by failing to conduct periodic evaluations as frequently as needed to assure the integrity of each covered segment following the identification of new HCAs along its pipelines that occurred after 2007.

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

⁹ Closing at 3.

¹⁰ Closing at 4.

ASSESSMENT OF PENALTY

Under 49 U.S.C. § 60122, Respondent is subject to an administrative civil penalty not to exceed \$200,000 per violation for each day of the violation, up to a maximum of \$2,000,000 for any related series of violations.¹¹ 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; 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 \$120,500 for the violations cited in Items 1 and 7 above.

Item 1: The Notice proposed a civil penalty of \$37,000 for Respondent's violation of 49 C.F.R. § 192.481(a). As discussed above, I found that TGP failed to inspect each pipeline or portion of pipeline exposed to the atmosphere for atmospheric corrosion at least once every 3 calendar years, but with intervals not exceeding 39 months. In its Response and at the hearing, Respondent did not contest the violation, but disagreed with the amount of the proposed civil penalty and questioned whether it was supported by the penalty consideration factors in the Pipeline Safety Act and § 190.225 regulations.

PHMSA's method of determining the proposed civil penalty for an alleged violation involves the use of a worksheet that assigns point value from a given range of points for each statutory penalty assessment factor. The points assignment is based on factual input from the Violation Report. The OPS regional office provided both of these documents to Respondent prior to the hearing. PHMSA is bound by the proposed civil penalty amount in the Notice in the sense that the final penalty I assess cannot be higher than the proposed amount, although it can be reduced if the operator provides information or arguments showing that a lower gradation of one of the factors such as gravity or culpability is appropriate.

With respect to the nature and circumstances of TGP's violation of § 192.481(a), performing atmospheric corrosion inspections is a basic code requirement and the non-compliance was discovered by the OPS inspector. With respect to the gravity of the offense, performing timely atmospheric corrosion inspections is a key part of safety. If surface corrosion begins to occur on the exposed steel pipe, appropriate remediation and recoating must be completed promptly to avoid further deterioration and greater threats to pipe integrity. With respect to culpability, there were no circumstances beyond Respondent's control (such as flooding) that prevented it from complying with the regulation and action was not taken to achieve compliance until after the violation was discovered by OPS. I further find that the record supports the points assigned for prior offenses and good faith. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$37,000 for violation of 49 C.F.R. § 192.481(a).

¹¹ These amounts are adjusted annually for inflation. *See, e.g.,* Pipeline Safety: Inflation Adjustment of Maximum Civil Penalties, 82 Fed. Reg. 19325 (April 27, 2017).

Item 7: The Notice proposed a civil penalty of \$83,500 for Respondent's violation of 49 C.F.R. § 192.805(c). As discussed above, I found that Respondent failed to follow its task specific span of control plan and thereby allowing an individual who was not qualified to perform a covered task to perform that task while not directed and observed by an individual that was qualified. In its Response and at the hearing, Respondent did not contest the violation, but disagreed with the amount of the proposed civil penalty and questioned whether it was supported by the penalty consideration factors in the Pipeline Safety Act and § 190.225 regulations.

With respect to the nature and circumstances of TGP's violation of § 192.805(c), ensuring that the performance of covered tasks, particularly pipeline control functions, is properly directed and observed by a qualified individual is a basic code requirement and the non-compliance was discovered by the OPS inspector. With respect to the gravity of the offense, OPS assigned a mid-level point value on the basis that pipeline safety was compromised and a high consequence area was involved. In its response and at the hearing, TGP explained that pipeline safety was minimally affected because the configuration of its consoles allowed all three controllers to monitor the entire pipeline—meaning that the one qualified controller was monitoring the entire pipeline.¹² Respondent further explained that while its one-to-one control ratio was exceeded, three controllers was more than typical for the system type. Respondent was persuasive that pipeline safety was minimally affected and I find that a corresponding reduction under the gravity factor is warranted. With respect to culpability, there were no circumstances beyond Respondent's control that prevented it from adhering to its span of control plan, the offense was ongoing for a period of approximately seven months, and action was not taken to achieve compliance until after the violation was discovered by OPS. I further find that the record supports the points assigned for prior offenses and good faith. With respect to other matters as justice may require, TGP explained that its span of control procedures exceeded the regulatory requirements. TGP pointed out that the worksheet provided for a penalty reduction in circumstances where the non-compliance was against the requirements of the procedure that exceeded the regulation but that this reduction had not been applied.¹³ Respondent is correct. Therefore, in addition to the reduction in gravity, I find that a reduction for other matters as justice may require is warranted. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a reduced civil penalty of \$25,900 for violation of 49 C.F.R. § 192.805(c).

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 **\$62,900**.

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 (AMK-325), Federal Aviation Administration, Mike Monroney Aeronautical Center, 6500 S MacArthur Blvd, Oklahoma City, Oklahoma 79169. The Financial Operations Division telephone number is (405) 954-8845.

¹² Closing at 7.

¹³ Closing at 8.

Failure to pay the \$62,900 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 district court of the United States.

COMPLIANCE ORDER

The Notice proposed a compliance order with respect to Items 1, 3, 4, and 9 in the Notice for violations of 49 C.F.R. §§ 192.481(a), 192.605(a), 192.613, and 192.937(b), respectively. 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. The Director indicates that Respondent has taken the following actions specified in the proposed compliance order:

1. With respect to the violation of § 192.481(a) (**Item 1**), Respondent completed atmospheric corrosion inspections for pipelines 100-1, 100-2, 100-3, and 100-4 in November 2015 and subsequently completed remediating the identified areas.
2. With respect to the violation of § 192.605(a) (**Item 3**), Respondent completed inspections of the gas detection and alarm system for the Cleveland Compressor Station in September 2015 and ensured proper functioning.
3. With respect to the violation of § 192.613 (**Item 4**), Respondent completed a program to recondition the 11 unsatisfactory items identified on the specified segments.
4. With respect to the violation of § 192.937(b) (**Item 9**), Respondent completed an evaluation in November 2016 to analyze the need for any additional preventative and mitigative measures such as automatic or remote shutoff valves following the identification of new HCAs along its pipelines.

Accordingly, I find that compliance has been achieved with respect to these violations. Therefore, the compliance terms proposed in the Notice are not included in this Order.

WARNING ITEMS

With respect to Items 2, 5, 6, and 8, the Notice alleged probable violations of Part 192 but did not propose a civil penalty or compliance order for these items. Therefore, these are considered to be warning items. The warnings were for:

- 49 C.F.R. § 192.605(a) (**Item 2**) — Respondent's alleged failure to follow section 3.1 of its Management of Change procedures for documenting a pressure reduction taken in connection with a pipeline repair;

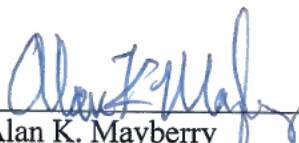
49 C.F.R. § 192.705(b) **(Item 5)** — Respondent's alleged failure to conduct transmission line patrolling within the required interval at the Highway 77 crossing;

49 C.F.R. § 192.739(a) **(Item 6)** — Respondent's alleged failure to inspect the pressure relief device for Unit No. 6 at the Robstown Station prior to placing it back in service in January 2014; and

49 C.F.R. § 192.805(b) **(Item 8)** — Respondent's alleged failure to ensure through evaluation that an employee was qualified to perform a covered task: the annual relief valve inspection on a segment of pipeline 100-3 in September 2014.

TGP presented information in its Response showing that it had taken certain actions to address the cited items. If OPS finds a violation of any of these items in a subsequent inspection, Respondent may be subject to future enforcement action.

Under 49 C.F.R. § 190.243, Respondent may submit a petition for reconsideration of this Final Order to the 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, no later than 20 days after receipt of service of this Final Order by Respondent. Should Respondent elect to submit a petition, it must contain a statement of the issue(s) and meet all other requirements of 49 C.F.R. § 190.243. The filing of a petition automatically stays the payment of any civil penalty assessed. The terms and conditions of this Final Order are effective upon service in accordance with 49 C.F.R. § 190.5.



Alan K. Mayberry
Associate Administrator
for Pipeline Safety

MAY 03 2018

Date Issued