



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

MAY 31 2017

1200 New Jersey Avenue SE
Washington, DC 20590

Mr. Russell K. Girling
President and Chief Executive Officer
TransCanada Corporation
450 - First Street SW
Calgary, Alberta, Canada
T2P 5H1

Re: CPF No. 3-2015-5010

Dear Mr. Girling:

Enclosed please find the Final Order issued in the above-referenced case to your subsidiary, TC Oil Pipeline Operations, Inc. It withdraws one of the allegations of violation and the proposed compliance order, makes three other findings of violation, and assesses a reduced civil penalty of \$135,400. The penalty payment terms are set forth in the Final Order. This enforcement action closes automatically upon receipt of payment. Service of the Final Order by certified mail is deemed effective upon the date of mailing, or as otherwise 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: Mr. Allan Beshore, Director, Central Region, Office of Pipeline Safety, PHMSA
Mr. Vern J. Meier, President, TC Oil Pipeline Operations Inc., 700 Louisiana Street,
Suite 700, Houston, Texas 77002

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

**TC Oil Pipeline Operations, Inc.,
a/k/a TransCanada Oil Pipeline Operations, Inc.,**

Respondent.

CPF No. 3-2015-5010

FINAL ORDER

On multiple occasions between April 2 and November 15, 2012, 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 facilities and records of TC Oil Pipeline Operations, Inc. (TransCanada or Respondent), throughout the central United States, including the company's mainline from the Canadian border to Patoka, Illinois (Mainline Segment), and its 291-mile, 36-inch-diameter Cushing Extension pipeline from Steele City, Nebraska, through Kansas to Cushing, Oklahoma (Cushing Extension).¹

TransCanada is a multi-national corporation with tens of thousands of miles of oil and gas pipelines, as well as extensive oil and gas storage assets, throughout North America. The facilities are part of TransCanada's Keystone Pipeline System within the United States.²

As a result of the inspection, the Director, Central Region, OPS (Director), issued to Respondent, by letter dated November 20, 2015, a Notice of Probable Violation, Proposed Civil Penalty and Compliance Order (Notice). In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that TransCanada had committed four violations of 49 C.F.R. Part 195, assessing a civil penalty of \$187,200 for the alleged violations, and ordering Respondent to take certain actions to correct the alleged violations.

TransCanada responded to the Notice by letter dated December 18, 2015 (Response). The company contested one of the allegations of violation, provided an explanation of its actions, and requested that the proposed civil penalties for the uncontested Items be reduced. Respondent initially requested a hearing but subsequently waived that right, based on discussions with the

¹ TC Oil Pipeline Operations, Inc., is a wholly indirectly-owned subsidiary of TransCanada Corporation. *See* Complaint, *TransCanada Keystone Pipeline, LP, and TC Oil Pipeline Operations, Inc., v. John Kerry, et als* (January 6, 2016), available at <http://www.keystone-xl.com/wp-content/uploads/2016/01/TransCanada-Complaint-January-6-2016.pdf> (last accessed March 24, 2017).

² *See* <http://www.transcanada.com/facts-figures.html>. (current as of 8/17/16)

Region by email on April 1, 2016. By letter of the same date, the Region withdrew Item 2 and the associated civil penalty and, based on the additional information provided by TransCanada showing that the requested corrective actions had been completed, withdrew the Proposed Compliance Order.

FINDINGS OF VIOLATION

The Notice alleged that Respondent violated 49 C.F.R. Part 195, as follows:

Item 1: The Notice alleged that Respondent violated 49 C.F.R. § 195.401(a), which states:

§ 195.401 General requirements.

(a) No operator may operate or maintain its pipeline systems at a level of safety lower than that required by this subpart and the procedures it is required to establish under §195.402(a) of this subpart.

The Notice alleged that Respondent violated 49 C.F.R. § 195.401(a) by failing to operate the Mainline Segment and the Cushing Extension at the required level of safety. Specifically, the Notice alleged that the Mainline Segment had been in service since June 30, 2010, but corrective measures to complete the installation of cathodic protection (CP) were not begun until November 2012 and not completed until 2013. According to TransCanada's own procedures established under § 195.402(a) and 49 C.F.R. § 195.563(a), adequate CP should have been in operation on the pipeline by June 30, 2011.³

The Notice further alleged that TransCanada's initial CP survey of the Mainline Segment was completed in December 2010 and the survey of the Cushing Extension was completed in August 2011. According to the Notice, both surveys revealed low CP readings at "numerous locations" but the company failed to install additional ground beds until 2012-13. The company's own investigation revealed that TransCanada's CP system had not been designed properly and did not meet the company's own procedure (TED-CP-DD, *Cathodic Protection Design Directive*) regarding sufficient current being supplied to the pipeline.⁴

In its Response, TransCanada did not contest the allegations of violation, acknowledging that the original CP system had inadequately compensated for the amount of current lost to substation grounding grids at pump stations and that such lost current had had an adverse effect on localized portions of the pipeline. However, TransCanada noted that the issues were identified within six months of the line being placed in service, even though the time required to implement those

³ 49 C.F.R. § 195.563(a) states:

"(a) Each buried or submerged pipeline that is constructed, relocated, replaced, or otherwise changed after the applicable date in § 195.401(c) must have cathodic protection. The cathodic protection must be in operation not later than 1 year after the pipeline is constructed, relocated, replaced or otherwise changed, as applicable."

⁴ As detailed in TransCanada's *Corrosion Anomaly at MP 995 KS9 Salisbury to Patoka on Keystone Pipeline Report*. See Pipeline Safety Violation Report, TransCanada Oil Pipeline Operations, Inc., CPF No. 3-2015-5010 (Violation Report), Nov. 20, 2015 (on file with PHMSA).

measures was extended by factors outside its control.⁵

The Region met with TransCanada to receive additional information on February 4, 2016. At that meeting, TransCanada indicated it was not contesting this Item but requested that PHMSA consider withdrawing it altogether or reducing the proposed penalty.⁶ Given the seriousness of TransCanada's failure to maintain adequate cathodic protection of its pipeline over an extended period of time and the fact that TransCanada did not dispute the allegations of violation, I see no basis for withdrawing this Item. As for the alternative request that the penalty be reduced, I will address that issue in the "Assessment of Penalty" section below.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.401(a) by failing to operate the Mainline Segment and the Cushing Extension at the required level of safety.

Item 2: The Notice alleged that Respondent violated 49 C.F.R. § 195.573(a)(1), which states:

§ 195.573 What must I do to monitor external corrosion control?

(a) *Protected pipelines.* You must do the following to determine whether cathodic protection required by this subpart complies with § 195.571:

(1) Conduct tests on the protected pipeline at least once each calendar year, but with intervals not exceeding 15 months. However, if tests at those intervals are impractical for separately protected short sections of bare or ineffectively coated pipelines, testing may be done at least once every 3 calendar years, but with intervals not exceeding 39 months.

The Notice alleged that Respondent violated 49 C.F.R. § 195.573(a)(1) by failing to conduct tests to monitor protected pipelines at least once each calendar year, but with intervals not exceeding 15 months. Specifically, the Notice alleged that TransCanada's records showed 51 required annual CP-test-station readings were not taken from 2010 to 2012 on the East Leg of the Mainline Segment but did not provide any rationale for its failure to conduct and record the tests in a timely manner.

TransCanada contested this allegation, claiming that each of the required readings was timely taken, in compliance with the regulations, but that the data presented to PHMSA may have been confusing in its tabulation, formatting, and naming conventions. TransCanada initially requested a hearing to re-present the data in a better format and to demonstrate compliance. The Region subsequently met with TransCanada on February 4, 2016, to allow the company to provide further information about the proposed compliance items and then, on the next day, to provide the re-formatted data.

As a result of this meeting, the Central Region has reviewed the re-formatted data, concluded

⁵ In its Response, TransCanada stated that the time required to complete its CP remediation program "was affected by unavoidable factors such as acquiring land access permission, environmental permitting, and the need for the supplemental facilities to polarize the pipeline before they could be adequately assessed." Response, at 5.

⁶ Response, at 10.

that the readings were indeed properly taken, and recommends that this Item be withdrawn. Accordingly, after considering all of the evidence, I hereby order that Item 2 be withdrawn, including the related civil penalty and Proposed Compliance Order.

Item 3: The Notice alleged that Respondent violated 49 C.F.R. § 195.573(e), which states, in relevant part:

§ 195.573 What must I do to monitor external corrosion control?

(a) . . .

(e) *Corrective action.* You must correct any identified deficiency in corrosion control as required by § 195.401(b). . . .

The Notice alleged that Respondent violated 49 C.F.R. § 195.573(e) by failing, within a reasonable time, to correct cathodic protection deficiencies found at 62 locations, as required under § 195.401(b).⁷ Specifically, the Notice alleged that TransCanada's records indicated CP deficiencies had remained uncorrected for multiple years. The inspection documented 56 deficiencies from Steele City, Nebraska, to Patoka, Illinois, that persisted from 2010 to 2012. An additional six deficiencies were documented from Steele City, Nebraska, to Cushing, Oklahoma, from 2010 to 2012.

In its Response, TransCanada did not contest PHMSA's allegations, but outlined the company's efforts to remedy known CP deficiencies throughout the relevant time period. At its meeting with the Region on February 4, 2016, TransCanada requested that PHMSA consider eliminating this Item or reducing the proposed penalty.⁸ As noted above, given the seriousness of TransCanada's failure to maintain proper cathodic protection on the pipeline over an extended period of time and the fact that TransCanada did not dispute the allegations of violation, I see no basis to withdraw this Item. As for the alternative request that the proposed penalty be reduced, I will discuss this issue in the "Assessment of Penalty" section below.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.573(e) by failing, within a reasonable time, to correct cathodic protection deficiencies found at 62 locations, as required under § 195.401(b).

Item 4: The Notice alleged that Respondent violated 49 C.F.R. § 195.577(a), which states:

§ 195.577 What must I do to alleviate interference currents?

(a) For pipelines exposed to stray currents, you must have a program to identify, test for, and minimize the detrimental effects of such currents.

⁷ 49 C.F.R. § 195.401(b) states:

"(b) An operator must make repairs on its pipeline system according to the following requirements:

(1) *Non integrity management repairs.* Whenever an operator discovers any condition that could adversely affect the safe operation of its pipeline system, it must correct the condition within a reasonable time..."

⁸ Region Recommendation, at 2 (on file with PHMSA).

The Notice alleged that Respondent violated 49 C.F.R. § 195.577(a) by failing to minimize the detrimental effects of interference currents on at least two areas under the influence of another pipeline's CP system. Specifically, the Notice alleged that TransCanada's records showed stray currents existed on the pipeline from milepost (MP) 991 to MP 998 on the Mainline Segment near St. Louis and at MP 137 on the Cushing Extension, over one year after installing corrosion-control measures to alleviate the problem.

PHMSA further alleged that TransCanada reported the existence of these interference locations to PHMSA on March 27, 2012, and detailed the company's efforts to mitigate them.⁹ According to the Notice, a third-party report by a TransCanada contractor confirmed the problem when it indicated the "strong possibility for stray current interference." In addition, TransCanada's own November 14, 2012 Close Interval Survey showed interference current on the pipeline from MP 991 to MP 998 (28 months after the pipeline was put in-service). Finally, the Notice alleged that by letter to PHMSA dated December 9, 2013, TransCanada acknowledged its continuing efforts to identify and remedy anomalies from low CP levels and that these efforts were the result of TransCanada failing to timely correct the effects of interference currents.

In its Response, TransCanada did not contest the allegations of violation, but noted that it had developed and implemented a stray-current interference program designed to identify, test for, and minimize stray-current interference once the company recognized that it had a problem. TransCanada's program identified the existence of stray-current interference during both a December 2010 survey and an August 2011 survey (both conducted within six months of the facilities going into service). TransCanada outlined a number of steps it had taken upon its recognition of the problems on both systems, but did not contest the allegation that stray-current interference existed well after the initial identification of the problem. However, TransCanada's efforts to identify stray-current interference were not initiated right away and only gradually addressed the problem, despite the fact that both pipelines operated in shared pipeline corridors where stray currents were likely to occur.

On February 4, 2016, the Region met with TransCanada to receive further information from the company about the proposed compliance terms. At that meeting, TransCanada did not contest this Item but requested that PHMSA consider eliminating this Item and/or reducing the proposed penalty.¹⁰ Given the seriousness of TransCanada's failure to maintain proper cathodic protection on the pipeline over an extended period of time and the fact that the company did not contest the allegations of violation, I see no basis to withdraw this Item. As for the request that the proposed penalty be reduced, I will discuss this issue in the "Assessment of Penalty" section below.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.577(a) by failing to minimize the detrimental effect of interference currents in at least two areas that were under the influence of another pipeline's cathodic protection system.

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

⁹ Violation Report at 24-26.

¹⁰ Region Recommendation, at 2 (on file with PHMSA).

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 \$187,200 for the violations cited above.

Item 1: The Notice proposed a civil penalty of \$53,800 for Respondent's violation of 49 C.F.R. § 195.401(a), for failing to operate the Mainline Segment and the Cushing Extension at the required level of safety. TransCanada did not contest this Item but asked that the proposed penalty be reduced because (1) it had identified problems with its CP system within six months of Phase I of the project being placed in service, (2) it took additional time to implement the corrective measures due to circumstances beyond its control, and (3) the company had "commenced remediation and mitigation efforts prior to any response or direction from PHMSA."¹² I have reviewed the record and the penalty-assessment factors that the Region considered in proposing the penalty and believe that the penalty is appropriate. The Violation Report noted, among other things, that the inadequate CP system caused metal loss anomalies up to 97 percent of pipe wall loss at one location located within a High Consequence Area near St. Paul, Missouri, and that the company's initial CP surveys showed low CP levels at numerous locations.¹³ In other words, this violation came extremely close to causing a pipeline failure in a location that could have resulted in serious damage to life, property or the environment.

Further, the proposed penalty did recognize and take into account Respondent's efforts to address its CP problems. Under the "Culpability" penalty factor, the Violation Report noted that TransCanada took significant steps to comply with the regulation but that it did not achieve compliance in a timely manner.¹⁴ I fail to see how any of the additional or any other arguments presented by the company provide a basis for reducing the proposed penalty. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$53,800 for violation of 49 C.F.R. § 195.401(a).

¹¹ The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, Pub. L. No. 112-90, § 2(a)(1), 125 Stat. 1904, January 3, 2012, increased the civil penalty liability for violating a pipeline safety standard to \$200,000 per violation for each day of the violation, up to a maximum of \$2,000,000 for any related series of violations.

¹² Response, at 5.

¹³ Violation Report, at 8.

¹⁴ *Id.*, at 9.

Item 3: The Notice proposed a civil penalty of \$53,200 for Respondent's violation of 49 C.F.R. § 195.573, for failing, within a reasonable time, to correct cathodic protection deficiencies found at 62 locations, as required under § 195.401(b). TransCanada did not contest PHMSA's allegations of violation, but requested that the proposed penalty be reduced on account of the company's "good faith efforts" to come into compliance. First, it outlined the company's ongoing and progressive efforts to remedy known CP deficiencies throughout the relevant time period. Second, it asserted that TransCanada had self-reported the issue to PHMSA before taking various corrective measures.

I do not find these arguments persuasive. First, the company's attempts to correct the CP deficiencies were taken into account in calculating the proposed penalty. Under the "Culpability" penalty assessment factor, the Violation Report noted that after TransCanada found the non-compliance, it took action to address the cause of the violation and was in the process of correcting the problem before PHMSA learned of the violation.¹⁵ Second, TransCanada asserts in its Response that it self-reported the violation, but the Violation Report alleged that PHMSA discovered the violation.¹⁶

While TransCanada may be correct in its assertion, I can find no evidence in the record to support the notion that the violation was self-reported. Finally, it is clear that TransCanada's prolonged period of inadequate CP significantly compromised the integrity of its pipeline and threatened High Consequence Areas. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$53,200 for violation of 49 C.F.R. § 195.573.

Item 4: The Notice proposed a civil penalty of \$28,400 for Respondent's violation of 49 C.F.R. § 195.577, for failing to minimize the detrimental effect of interference currents on at least two areas under the influence of another pipeline's CP system. TransCanada did not contest this Item but requested a reduction in the proposed penalty for the same reasons discussed above in Item 1, contending that it had developed and implemented a stray-current interference program to identify, test for, and minimize stray-current interference within six months of the facilities going into service.

The proposed penalty for this Item was based in large part on the gravity of the violation, which significantly compromised safety of the pipeline in High Consequence Areas. In addition, the fact that stray-current interference was allowed to persist for close to two years is further evidence of the seriousness of the violation. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$28,400 for violation of 49 C.F.R. § 195.577.

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 **\$135,400**.

Payment of the civil penalty must be made within 20 days of service. Federal regulations

¹⁵ *Id.*, at 22.

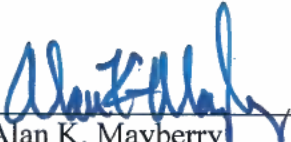
¹⁶ *Id.*, at 20.

(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 MacArthur Boulevard, Oklahoma City, Oklahoma 79169. The Financial Operations Division telephone number is (405) 954-8845.

Failure to pay the \$135,400 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.

Under 49 C.F.R. § 190.243, TransCanada has the 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 the 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. § 190.243. The filing of a petition automatically stays the payment of any civil penalty assessed but does not stay any other provisions of the Final Order, including any required corrective actions. If Respondent submits payment of the civil penalty, the Final Order becomes the final administrative decision and the right to petition for reconsideration is waived.

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 31 2017

Date Issued