



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave., SE
Washington, DC 20590

JUL 22 2011

Mr. Tim Heilig
Vice President of Mechanical Operations
Norfolk Southern Corporation
1200 Peachtree Street, N.E. (Box:184)
Atlanta, GA 30309

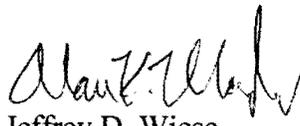
Re: CPF No. 2-2011-6005

Dear Mr. Heilig:

Enclosed please find the Final Order issued in the above-referenced case. It makes findings of violation, assesses a civil penalty of \$77,500, and specifies actions that need to be taken by Norfolk Southern Corporation 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 completed, as determined by the Director, Southern Region, this enforcement action will be closed. 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,


for Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

Enclosure

cc: Mr. Alan Mayberry, Deputy Associate Administrator for Field Operations, Pipeline Safety
Ms. A. Gayle Jordan, General Solicitor-Environmental
Mr. Wayne Lemoi, Director, OPS Southern Region

CERTIFIED MAIL - RETURN RECEIPT REQUESTED [7005 1160 0001 0075 9671]

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

_____)
In the Matter of)

Norfolk Southern Corporation,)

Respondent.)
_____)

CPF No. 2-2011-6005

FINAL ORDER

On September 28-29, 2009, November 30, 2009, and June 29, 2010, 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 Norfolk Southern Corporation (Norfolk or Respondent) in Macon, Georgia. Respondent operates 5.5 miles of diesel fuel pipeline in Macon, Georgia.¹

As a result of the inspection, the Director, Southern Region, OPS (Director), issued to Respondent, by letter dated February 17, 2011, 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 Norfolk had committed various violations of 49 C.F.R. Part 195 and proposed assessing a civil penalty of \$77,500 for the alleged violations. The Notice also proposed ordering Respondent to take certain measures to correct the alleged violations. The warning items required no further action, but warned the operator to correct the probable violation.

Norfolk responded to the Notice by letter dated March 18, 2011 (Response). The company did not contest the allegations of violation but provided an explanation of its actions and requested that the proposed civil penalty be reduced. Respondent did not request a hearing and therefore has waived its right to one.

FINDINGS OF VIOLATION

In its Response, Norfolk did not contest the allegations in the Notice that it violated 49 C.F.R. Part 195, as follows:

¹ <http://www.nscorp.com/>(last accessed 6/20/2011).

Item 1: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(f)(3), which states in relevant part:

§ 195.452 -- Pipeline integrity management in high consequence areas.

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

(3) An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure (see paragraph (g) of this section)...

(g) *What is an information analysis?* In periodically evaluating the integrity of each pipeline segment (paragraph (j) of this section), an operator must analyze all available information about the integrity of the entire pipeline and the consequences of a failure. This information includes:

(1) Information critical to determining the potential for, and preventing, damage due to excavation, including current and planned damage prevention activities, and development or planned development along the pipeline segment;

(2) Data gathered through the integrity assessment required under this section;

(3) Data gathered in conjunction with other inspections, tests, surveillance and patrols required by this Part, including, corrosion control monitoring and cathodic protection surveys; and

(4) Information about how a failure would affect the high consequence area, such as location of the water intake.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(f)(3) by failing to perform an analysis that integrated all available information about the integrity of its covered pipeline segments and the consequences of a failure, in accordance with 49 C.F.R. 195.452(g). Specifically, the Notice alleged that Norfolk failed to perform an analysis that integrated the nine risk factors² required by its Integrity Management Program (IMP) to evaluate the integrity of its covered pipeline segments and the consequences of a failure. The Notice also alleged that the company failed to analyze and evaluate its prior integrity assessments or risks based on its IM procedures. Respondent did not contest this allegation of violation. Accordingly, based upon a

² Section 4 of Norfolk's *Pipeline Integrity Management Program (NSCIMP)* requires a Risk Assessment Committee perform the risk analysis using Subject Matter Experts (SMEs) to evaluate the relative likelihood and consequence of nine risk factors required for the assessment. The risk factors include (1) the results of prior IM assessments, (2) pipeline construction, (3) pipeline history (leak history, repair history, cathodic protection history), (4) the product transported, (5) maximum operating pressure (MOP) and percent of specified minimum yield strength (% SMYS), (6) activities in the area, (7) local factors, (8) geotechnical factors, and (9) physical support for the pipeline.

review of all of the evidence, I find that Respondent violated 49 C.F.R. § 195.452 (f)(3) by failing to perform an analysis that integrated nine risk factors to evaluate the integrity of its covered pipeline segments and the consequences of a failure on the pipeline, in accordance with 49 C.F.R. 195.452(g).

Item 3A: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(1), which states in relevant part:

§ 195.452 -- Pipeline integrity management in high consequence areas.

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

(6) Identification of preventive and mitigative measures to protect the high consequence area (see paragraph (i) of this section)...

(i) *What preventive and mitigative measures must an operator take to protect the high consequence area?* —(1) *General requirements.* An operator must take measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. These measures include conducting a risk analysis of the pipeline segment to identify additional actions to enhance public safety or environmental protection. Such actions may include, but are not limited to, implementing damage prevention best practices, better monitoring of cathodic protection where corrosion is a concern, establishing shorter inspection intervals, installing EFRDs on the pipeline segment, modifying the systems that monitor pressure and detect leaks, providing additional training to personnel on response procedures, conducting drills with local emergency responders and adopting other management controls....

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(1) by failing to perform a risk analysis of its pipeline segments to identify additional measures to prevent and mitigate the consequences of a pipeline failure that could affect HCAs.³ Specifically, the Notice alleged that Norfolk failed to conduct a risk analysis of the pipeline to identify additional measures to enhance public safety or environmental protection in order to prevent and mitigate the consequences of a pipeline failure that could affect HCAs. Respondent acknowledged that it

³ An HCA is defined as: (1) a *commercially navigable waterway*, which means a waterway where a substantial likelihood of commercial navigation exists; (2) a *high population area*, which means an urbanized area, as defined and delineated by the Census Bureau, that contains 50,000 or more people and has a population density of at least 1,000 people per square mile; (3) an *other populated area*, which means a place, as defined and delineated by the Census Bureau, that contains a concentrated population, such as an incorporated or unincorporated city, town, village, or other designated residential or commercial area; and (4) an *unusually sensitive area*, as defined in § 195.6. 49 C.F.R. § 195.450.

failed to identify additional measures to prevent and mitigate the consequences, as required by its IMP. Accordingly, based upon a review of all of the evidence, I find that Respondent violated 49 C.F.R. § 195.452 (i)(1) by failing to conduct a risk analysis to identify measures to take to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area.

Item 3B: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(3), which states in relevant part:

§ 195.452 --Pipeline integrity management in high consequence areas.

(i) ...

(3) *Leak detection.* An operator must have a means to detect leaks on its pipeline system. An operator must evaluate the capability of its leak detection means and modify, as necessary, to protect the high consequence area. An operator's evaluation must, at least, consider, the following factors—length and size of the pipeline, type of product carried, the pipeline's proximity to the high consequence area, the swiftness of leak detection, location of nearest response personnel, leak history, and risk assessment results...

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(3) by failing to evaluate the capability of its leak detection system or modify the system, as necessary, to protect HCAs. Specifically, the Notice alleged that Norfolk did not have documentation to demonstrate that it evaluated its leak detection capability. The Notice also alleged that Respondent's personnel stated that they could not confirm that an evaluation had been completed. 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. § 195.452(i)(3) by failing to evaluate the capability of its leak detection system or modify the system, as necessary, to protect HCAs.

Item 3C: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(4), which states in relevant part:

§ 195.452 -- Pipeline integrity management in high consequence areas.

(i) ...

(4) *Emergency Flow Restricting Devices (EFRD).* If an operator determines that an EFRD is needed on a pipeline segment to protect a high consequence area in the event of a hazardous liquid pipeline release, an operator must install the EFRD. In making this determination, an operator must, at least, consider the following factors—the swiftness of leak detection and pipeline shutdown capabilities, the type of commodity carried, the rate of potential leakage, the volume that can be released, topography or pipeline profile, the potential for ignition, proximity to power sources, location of nearest response personnel, specific terrain between the pipeline segment and the high consequence area, and benefits expected by reducing the spill size.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(4) by failing to perform an evaluation or demonstrate that it had performed an analysis on its pipeline to determine the need for Emergency Flow Restricting Devices (EFRDs)⁴ to protect high consequence areas along its pipeline. PHMSA asserted that Norfolk personnel stated that they could not confirm that an evaluation had been completed. 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. § 195.452(i)(4) by failing to perform an evaluation on its pipeline to determine the need for EFRDs.

Item 4: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(k), which states in relevant part:

§ 195.452 -- Pipeline integrity management in high consequence areas.

(j) ...

(k) *What methods to measure program effectiveness must be used?* An operator's program must include methods to measure whether the program is effective in assessing and evaluating the integrity of each pipeline segment and in protecting the high consequence areas. See Appendix C of this part for guidance on methods that can be used to evaluate a program's effectiveness.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(k) by failing to perform a review of its integrity management program to measure whether the program was effective in assessing and evaluating the integrity of each pipeline segment and in protecting the high consequence areas. Specifically, the Notice alleged that Norfolk failed to provide documentation to demonstrate that it had ever performed an IM program review. 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. § 195.452(k) by failing to review the effectiveness of its IM program to measure whether the program effectively assessed and evaluated the integrity of each pipeline segment and protected the high consequence areas.

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 \$77,500 for the violations cited above.

⁴ A check valve or remote control valve as defined by 49 C.F.R. §195.450 – Definitions.

Item 1: The Notice proposed a civil penalty of \$15,500 for Respondent's violation of 49 C.F.R. § 195.452(f) for failing to perform an analysis that integrated the nine risk factors required by its IMP to evaluate the integrity of its covered pipeline segments and the consequences of a failure. Respondent requested mitigation of the proposed civil penalty based on its efforts to comply by analyzing five risk factors it considered pertinent to its pipeline. I find that although Norfolk's analysis addressed five risk factors, the company did not analyze and evaluate any of the nine risks factors required by its IM procedures: (1) the results of prior IM assessments, (2) pipeline construction, (3) the history of leaks, repairs and cathodic protection on the pipeline, (4) the product transported, (5) maximum operating pressure and percent of specified minimum yield strength, (6) activities in the area, (7) local factors, (8) geotechnical factors, and (9) physical support for the pipeline. Instead, Norfolk addressed third party construction, derailment, environmental interference, Norfolk construction, and flooding. In terms of the culpability, Respondent knew of its responsibility to meet the various requirements of its IMP; therefore a reduction of the civil penalty is not warranted. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$15,500 for violation of 49 C.F.R. § 195.452(f).

Item 3A: The Notice proposed a civil penalty of \$15,500 for Respondent's violation of 49 C.F.R. § 195.452(i)(1) for failing to perform a risk analysis of its pipeline to identify measures to take to prevent and mitigate the consequences of a pipeline failure that could affect a HCA. Respondent acknowledged that it did not follow its IMP to develop the guidelines to identify measures to prevent and mitigate the consequences of a pipeline failure that could affect HCAs. However, the company advised that it did take steps to address the risks it identified that were particular to the pipeline's location in the railroad yard, including hiring third party contractors to respond immediately to any incident along the pipeline and employ the necessary response equipment. In terms of the culpability of the offense, Respondent knew of its responsibility to meet the various requirements of its IMP procedures and acknowledged its non-compliance. Performance of integrity assessments and preventing and mitigating the consequences of a pipeline failure are vital components of the integrity management regulations, which are designed to ensure a heightened level of safety for HCAs. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$15,500 for violation of 49 C.F.R. § 195.452(i)(1).

Item 3B: The Notice proposed a civil penalty of \$10,500 for Respondent's violation of 49 C.F.R. § 195.452(i)(3) for failing to evaluate the capability of its leak detection system or to modify the system, as necessary, to protect high consequence areas. Respondent proffered that its failure to comply was due to a misunderstanding of what such an evaluation would entail. Norfolk stated that it has a leak detection system that monitors flow into and out of the pipeline and that the system has an emergency shutdown valve, and that it receives monitoring data and continuously evaluates that data. Respondent also stated that it had internal discussions concerning its leak detection system, which included discussions about whether the system provided enough information. Even though Respondent has a leak detection system and engaged in discussions about the system, such measures are inconsistent with the regulation's intent to conduct a formal evaluation of the capabilities of its leak detection system to protect high consequence areas. Respondent is culpable for the violation. Accordingly, having reviewed the

record and considered the assessment criteria, I assess Respondent a civil penalty of \$10,500 for violation of 49 C.F.R. § 195.452(i)(3).

Item 3C: The Notice proposed a civil penalty of \$20,500 for Respondent's violation of 49 C.F.R. § 195.452(i)(4), for failing to perform an evaluation on the pipeline to determine the need for Emergency Flow Restricting Devices (EFRD) to protect high consequence areas along the company's pipeline. In its Response, Norfolk advised that, prior to the inspection, it had conducted informal EFRD evaluations, but the evaluations were focused on the understood price of additional EFRDs. Norfolk also advised it was not in possession of the EFRD evaluation records at the time of the inspection but it has since obtained these records from NuStar Terminal, which delivers diesel fuel to Norfolk's pipeline. I find that an informal evaluation of the needs for EFRDs based on pricing is inconsistent with the regulation's intent to provide additional protection for HCAs. Norfolk has not provided relevant information to support a reduction in the proposed civil penalty. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$20,500 for violation of 49 C.F.R. § 195.452(i)(4).

Item 4: The Notice proposed a civil penalty of \$15,500 for Respondent's violation of 49 C.F.R. § 195.452(k), for failing to perform integrity management program (IMP) reviews to measure whether the IMP program was effective in assessing and evaluating the integrity of each pipeline segment and in protecting the high consequence areas.⁵ Respondent explained that its personnel do perform these reviews, but did not keep written accounts of the reviews. Without documentation of IMP reviews it is often difficult, if not impossible, for PHMSA to determine compliance with the integrity management regulations. Congress has recognized the importance of maintaining proper documentation by explicitly requiring that every pipeline operator maintain and make available to OPS records and information "[t]o enable the Secretary to decide whether [the operator] is complying with this chapter and standards prescribed or orders issued under this chapter."⁶ Respondent is fully culpable for its failure to follow its IMP procedures. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$15,500 for violation of 49 C.F.R. § 195.452(k).

In summary, having reviewed the entire record and considered the assessment criteria, I assess Respondent a total civil penalty of **\$77,500**. There is nothing in the record indicating that payment of this penalty would adversely affect Respondent's ability to continue in business.

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.

⁵ 49 U.S.C. § 60109.

⁶ 49 U.S.C. § 60117(b).

Failure to pay the \$77,500 civil penalty will result in accrual of interest at the current annual rate in accordance with 31 U.S.C. § 3717, 31 C.F.R. § 901.9 and 49 C.F.R. § 89.23. Pursuant to those same authorities, a late penalty charge of six percent (6%) per annum will be charged if payment is not made within 110 days of service. Furthermore, failure to pay the civil penalty may result in referral of the matter to the Attorney General for appropriate action in a district court of the United States.

COMPLIANCE ORDER

The Notice proposed a compliance order with respect to Items 1, 3A, 3B, 3C, and 4 in the Notice for violations of 49 C.F.R. §§ 195.452(f), 195.452(i)(1), 195.452(i)(3), 195.452(i)(4), and 195.452(k), respectively. Under 49 U.S.C. § 60118(a), each person who engages in the transportation of hazardous liquids or who owns or operates a pipeline facility is required to comply with the applicable safety standards established under chapter 601. Pursuant to the authority of 49 U.S.C. § 60118(b) and 49 C.F.R. § 190.217, Respondent is ordered to take the following actions to ensure compliance with the pipeline safety regulations applicable to its operations:

1. With respect to the violation of § 195.452(g) (**Item 1**), Respondent must perform a risk analysis of its pipeline in accordance with its revised integrity management program procedures.
2. With respect to the violation of § 195.452(i)(1) (**Item 3A**), Respondent must perform a risk analysis of its pipeline segments to identify additional preventative and mitigative measures to enhance public safety and environmental protection.
3. With respect to the violation of § 195.452(i)(3) (**Item 3B**), Respondent must perform an evaluation of its leak detection system, in accordance with the requirements of § 195.452(i)(3).
4. With respect to the violation of § 195.452(i)(4) (**Item 3C**), Respondent must perform an evaluation to determine the need for EFRDs to protect high consequence areas along its pipeline, as required by §195.452(i)(4).
5. With respect to the violation of § 195.452(k) (**Item 4**), Respondent must perform a review of its integrity management program to determine whether the program is effectively assessing and evaluating the integrity of the pipeline.
6. Norfolk must provide written documentation to the Director, PHMSA Southern Region, to demonstrate that all Items of this Compliance Order have been completed within 45 days following receipt of this Final Order.

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 and demonstrating good cause for an extension.

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

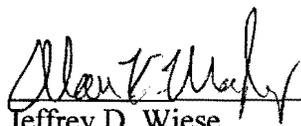
WARNING ITEM

With respect to Item 2, the Notice alleged a probable violation of Part 195 but did not propose a civil penalty or compliance order for this item. Therefore, this is considered to be a warning item. The warning is for:

49 C.F.R. § 195.452 (**Item 2**) – Respondent’s alleged failure to properly document the decisions, analyses, and actions taken to implement and evaluate each element of its integrity management program. Specifically, Respondent failed to demonstrate how it selected pressure testing as the appropriate assessment method to be used on its pipeline to assess the pipeline for identified risks.

Norfolk is hereby advised to correct the condition. If OPS finds a violation of this provision in a subsequent inspection, Respondent may be subject to future enforcement action.

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.

bcv 

 Jeffrey D. Wiese
 Associate Administrator
 for Pipeline Safety

'JUL 22 2011

 Date Issued