



U.S. Department
Of Transportation
Pipeline and
Hazardous Materials
Safety Administration

820 Bear Tavern Road, Suite 103
West Trenton, NJ 08628
609.989.2171

NOTICE OF AMENDMENT

OVERNIGHT EXPRESS MAIL

February 12, 2015

Mr. Robert Steidel
Director, City of Richmond
Department of Public Utilities
730 East Broad Street
Richmond, VA 23219

CPF 1-2015-0001M

Dear Mr. Steidal:

Between April 9 and October 9, 2014, inspectors from the Virginia State Corporation Commission (VA SCC) acting as Agent for the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code inspected the City of Richmond's (City) Distribution Integrity Management Program (DIMP) procedures in Richmond, Virginia.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within the City's plans or procedures, as described below:

1. §192.1007 What are the required elements of an integrity management plan?

(c) Evaluate and rank risk. An operator must evaluate the risks associated with its distribution pipeline. In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline. This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a failure. An operator may subdivide its pipeline into regions with similar characteristics (e.g., contiguous areas within a distribution pipeline consisting of mains, services and other appurtenances; areas with common materials or environmental factors), and for which similar actions likely would be effective in reducing risk.

The City's DIMP procedures are inadequate because those procedures failed to consider, identify, and include, all potential threats in risk assessment.

The City provided a list of their 8 primary threats within section 6 of the City's DIMP Plan. However, the City failed to adequately evaluate the sub-threats in its system. For example, the City failed to identify and evaluate "atmospheric corrosion" and "internal corrosion" as separate and independent sub-threats under the primary threat of corrosion. In addition, the City's risk model yielded a risk of "0" for Mechanical Fitting Failures, when the City has experienced numerous Mechanical Fitting Failures in recent years. The City goes on to state that the threat is believed to be "Not Applicable" based on the respective score for that metric, and therefore the subject matter experts (SMEs) did not validate the end results of the risk model.

2. §192.1007 What are the required elements of an integrity management plan?

(c) Evaluate and rank risk. An operator must evaluate the risks associated with its distribution pipeline. In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline. This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a failure. An operator may subdivide its pipeline into regions with similar characteristics (e.g., contiguous areas within a distribution pipeline consisting of mains, services and other appurtenances; areas with common materials or environmental factors), and for which similar actions likely would be effective in reducing risk.

The City's DIMP procedures are inadequate because those procedures failed to consider certain potential consequences of a failure from each applicable and current threat.

The City identified both the likelihood and the consequence of failure for each of its threats and subcategory of threats in the City's DIMP procedures. However, the City's DIMP plan only addressed the NTSB and PHMSA Advisory Bulletins. The City failed to include in their risk analysis all potential impacts (consequences) possible from its system. For example, proximity to structures and critical facilities is not mentioned in the City's DIMP procedures.

3. §192.1007 What are the required elements of an integrity management plan?

(d) Identify and implement measures to address risks. Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline. These measures must include an effective leak management program (unless all leaks are repaired when found).

The City's DIMP procedures are inadequate because those procedures failed to have a detailed process for evaluating the risk assessment results and determining when additional actions are required.

The City's DIMP procedures state in section 8.0 of the DIMP plan that "Once risks have been ranked appropriately, SMEs shall identify and implement risk mitigation strategies to address the risks accordingly." This statement fails to meet the code requirement for establishing a procedure for evaluating additional preventive and mitigative measures.

The City needs to include in its DIMP procedures a threshold level at which the additional measures to reduce risk must be implemented.

4. §192.1007 What are the required elements of an integrity management plan?

(e) Measure performance, monitor results, and evaluate effectiveness.

(1) Develop and monitor performance measures from an established baseline to evaluate the effectiveness of its IM program. An operator must consider the results of its performance monitoring in periodically re-evaluating the threats and risks. These performance measures must include the following:

(i) Number of hazardous leaks either eliminated or repaired as required by §192.703(c) of this subchapter (or total number of leaks if all leaks are repaired when found), categorized by cause;

(ii) Number of excavation damages;

(iii) Number of excavation tickets (receipt of information by the underground facility operator from the notification center);

(iv) Total number of leaks either eliminated or repaired, categorized by cause;

(v) Number of hazardous leaks either eliminated or repaired as required by §192.703(c) (or total number of leaks if all leaks are repaired when found), categorized by material; and

(vi) Any additional measures the operator determines are needed to evaluate the effectiveness of the operator's IM program in controlling each identified threat.

The City's DIMP procedures are inadequate because those procedures do not adequately define how to evaluate and monitor the effectiveness of performance measures to reduce risk.

The City's DIMP procedures state in section 9.0 of the DIMP plan that the City's Gas Engineer will monitor and evaluate each performance measure each year to monitor its effectiveness. However, the City's DIMP procedures fail to establish how the City Gas Engineer will evaluate and monitor these measures for effectiveness. The City needs to establish baselines and a process for determining when performance measures are indicating good or bad performance.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.237. Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

If, after opportunity for a hearing, your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.237). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 60 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested (not mandated) that the City maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Byron E. Coy, PE, Director, PHMSA Eastern Region, 820 Bear Tavern Road, Suite 103, West Trenton, NJ 08628. In correspondence concerning this matter, please refer to **CPF 1-2015-0001M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Additionally, if you choose to respond to this (or any other case), please ensure that any response letter pertains solely to one CPF case number.

Sincerely,



Byron E. Coy, PE
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration

Cc: Mr. James Hotinger, VA SCC

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*