



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

NOTICE OF AMENDMENT

UPS 2-DAY AIR - 1Z WR2 588 03 9156 1687

February 26, 2013

Mr. Dan Britton
President and Chief Executive Officer
Fairbanks Natural Gas
3408 International Way
Fairbanks, AK 99701

CPF 5-2013-0001M

Dear Mr. Britton:

On September 9-11, 2012, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, inspected Fairbanks Natural Gas' (FNG) procedures and records for their Distribution Integrity Management Program (DIMP) in Fairbanks, Alaska.

As a result of the inspection, PHMSA has identified inadequacies found within FNG's DIMP plan as described below:

1. **§192.1007 What are the required elements of an integrity management plan? A written integrity management plan must contain procedures for developing and implementing the following elements:**
 - (a) **Knowledge. An operator must demonstrate an understanding of its gas distribution system developed from reasonably available information.**
 - (1) **Identify the characteristics of the pipeline's design and operations and the environmental factors that are necessary to assess the applicable threats and risks to its gas distribution pipeline.**

FNG's DIMP procedures do not adequately describe the data sources used to gather information and knowledge of the system, e.g., subject matter experts consulted, information gathered from specific Operation and Maintenance and Inspection (OM&I) forms, records, system maps, etc.) Furthermore, the data sources that are used do not go beyond those recommended by the Simple, Handy, Risk-based Integrity Management Plan (SHRIMP) that

was developed by the American Public Gas Association to assist distribution companies in creating and implementing a DIMP. A SHRIMP plan is starting point for creating a comprehensive DIMP, and must be expanded to include the unique risk threats that a distribution company may be exposed to. The FNG SHRIMP reviewed do not reflect unique threats to the system imposed by Arctic conditions. There are other data sources that must be considered, e.g. the condition of connections at a dwelling to see if there are problems due to frost heaving that may have shifted the ground and joint and fitting connections. In addition, the PHMSA inspectors found that the risks posed by gas corrosivity and components that limited Maximum Allowable Operating Pressure were not well defined.

Chapter 3, "Knowledge of System" includes no provisions for periodic updates (i.e. reviewing, collecting and consolidating of data sources beyond the two year plan review period. Data sources exist that are not captured in the procedures other than those listed in Section 11.2. This section is only the minimum of data sources recommended by the SHRIMP software and does not reflect data sources that are needed to perform a threat assessment that takes into account the unique Arctic environment. Additionally, procedures to consolidate information on a periodic basis are not provided in Chapter 3, Knowledge of the Distribution System.

FNG did not adequately describe the process (who, what, when, where) to improve the operator's knowledge of its gas distribution system, especially the environmental risk factors that may pose a risk to its pipelines and appurtenances. FNG's DIMP plan must provide procedures for identifying, listing, and collecting, as appropriate, additional data and information that is needed to fill gaps in knowledge and information due to missing, inaccurate, or incomplete records, and to consolidate information on a periodic basis.

2. **§192.1007 What are the required elements of an integrity management plan? A written integrity management plan must contain procedures for developing and implementing the following elements:**
- (a) Knowledge. An operator must demonstrate an understanding of its gas distribution system developed from reasonably available information.**
 - (3) Identify additional information needed and provide a plan for gaining that information over time through normal activities conducted on the pipeline (for example, design, construction, operations or maintenance activities).**

FNG's DIMP process does not adequately identify additional information needed to fill information gaps that could be used to increase the knowledge of their system.

A procedure must be developed so that if an incident occurs, there is a way to collect information to see if the problem exists on other parts of the system. FNG's DIMP plan, Chapter 11.1, Section C, states, "The following gaps identified by FAIRBANKS NATURAL GAS: FAIRBANKS NATURAL GAS will implement as follows; No additional information needed."

FNG's DIMP must include a process to gain additional information over time.

3. **§192.1007 What are the required elements of an integrity management plan? A written integrity management plan must contain procedures for developing and implementing the following elements:**
- (b) *Identify threats.* The operator must consider the following categories of threats to each gas distribution pipeline: corrosion, natural forces, excavation damage, other outside force damage, material or welds, equipment failure, incorrect operations, and other concerns that could threaten the integrity of its pipeline. An operator must consider reasonably available information to identify existing and potential threats. Sources of data may include, but are not limited to, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience.**

FNG's DIMP plan does not detail the specific processes used to identify all existing and potential threats that describe how subject matter experts gather and input information into DIMP for the threat assessment. FNG's DIMP has no procedures to gather data beyond those risk categories explicitly listed in SHRIMP, either on FNG's unique system or trends found across the industry as they are identified. FNG's DIMP plan procedures do not address one of the most common threats unique to your system, frost heave. The FNG DIMP is also incomplete because it does not describe procedures for how it will receive updates from outside sources and consider them for incorporation into your DIMP. Outside sources must include, but are not limited to, the following:

- American Gas Association;
- Informal meetings with Enstar Natural Gas; and
- PHMSA Advisory Bulletins.

FNG must consider all available information including how to solicit and gather information for the threat assessment analysis, data identifying all potential and existing threats and all information required for creating a comprehensive threat analysis.

4. **§192.1007 What are the required elements of an integrity management plan? A written integrity management plan must contain procedures for developing and implementing the following elements:**
- (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....**
- (f) *Periodic Evaluation and Improvement.* An operator must re-evaluate threats and risks on its entire pipeline and consider the relevance of threats in one**

location to other areas. Each operator must determine the appropriate period for conducting complete program evaluations based on the complexity of its system and changes in factors affecting the risk of failure. An operator must conduct a complete program re-evaluation at least every five years. The operator must consider the results of the performance monitoring in these evaluations.

FNG's DIMP procedures do not provide an adequate process to identify existing and potential threats AND to re-evaluate the rankings and justify those rankings on an ongoing basis. FNG must re-evaluate the risk ranking process by determining the relative risk of each pipeline threat and validate the results through FNG's DIMP. FNG should also add, "natural forces" and "workmanship defects" in addition to "outside force damage" caused by excavation. Based on information reviewed by the inspectors, above ground vehicle strikes and "poor workmanship" downstream of the meters are higher risks not currently considered in their risk rankings. FNG must also document justification of its ranking on an ongoing basis in the DIMP procedures in Section 5, page 14).

5. **§192.1007(e) What are the required elements of an integrity management plan? A written integrity management plan must contain procedures for developing and implementing the following elements:**
- (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.**

FNG's DIMP procedures do not contain an adequate process for establishing baselines for performance measures from which to monitor effectiveness of its DIMP program. FNG does not have an adequate process for taking additional safety measures after the operator integrates and evaluates all known risks. FNG must have a process to monitor the performance measures in compliance with §192.1007(e) and to implement additional risk-reducing measures where applicable. Further, FNG's procedures are inadequate to measure effectiveness of additional risk-reducing measures as required by §192.1007(e)(1)(vi) since no preventative steps are being taken beyond those required by Federal pipeline safety regulations. Regardless of the fact that currently no additional risk reduction measures are

being proposed or implemented, procedures must exist to establish a performance baseline which future improvements can be measured against.

6. **§192.1007(f) What are the required elements of an integrity management plan? A written integrity management plan must contain procedures for developing and implementing the following elements:**
(f) Periodic Evaluation and Improvement. An operator must re-evaluate threats and risks on its entire pipeline and consider the relevance of threats in one location to other areas. Each operator must determine the appropriate period for conducting complete program evaluations based on the complexity of its system and changes in factors affecting the risk of failure. An operator must conduct a complete program re-evaluation at least every five years. The operator must consider the results of the performance monitoring in these evaluations.

FNG's DIMP procedures do not contain an adequate process that describes the details of how it will conduct periodic evaluations. The DIMP periodic evaluations process does not contain an evaluation of program effectiveness to determine if modifications to the program need to be made including risk prioritization results, risk control practices, failure analysis results and performance measures. The written procedures for periodic review do not include the frequency of review (not to exceed 5 years, based on the complexity of the system and changes in factors affecting the risk of failure), the verification of general information (e.g. contact information, form names, action schedules, etc.), or incorporating new system information (re-evaluating threats and risks, reviewing the frequency and the effectiveness of the measures to reduce risk, and modifying measures to reduce risk).

7. **§192.1011 What records must an operator keep? An operator must maintain records demonstrating compliance with the requirements of this subpart for at least 10 years. The records must include copies of superseded integrity management plans developed under this subpart.**

FNG's procedures are inadequate and general in nature in that FNG's DIMP plan does not contain an adequate process to record the various forms and documents used in the threat identification section, and it does not require that the documents be retained for 10 years. FNG's DIMP must include the requirement that the OM&I forms and documentation used to demonstrate compliance with §192 Subpart P be retained for 10 years.

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 thirty (30) 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 Fairbanks Natural Gas maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Chris Hoidal, Director, Western Region, Pipeline and Hazardous Materials Safety Administration.

In correspondence concerning this matter, please refer to **CPF 5-2013-0001M** and send all documents to our office at 188 W. Northern Lights Blvd., Suite 520, Anchorage AK, 99503, and for each document you submit please provide a copy in electronic format whenever possible.

Sincerely,



Dennis Hinnah
Deputy Director, Western Region
Pipeline and Hazardous Materials Safety Administration

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

cc: PHP-60 Compliance Registry
PHP-500 J. Strawn (#139392)