



U.S. Department  
of Transportation

**Pipeline and  
Hazardous Materials  
Safety Administration**

840 Bear Tavern Road, Suite 300  
West Trenton, NJ 08628  
609.771.7800

## **AMENDED NOTICE OF AMENDMENT**

### **OVERNIGHT EXPRESS DELIVERY**

June 27, 2024

Mr. Joseph Karney  
Vice President, Engineering & Utility Operations  
Northwest Natural Gas Company  
250 SW Taylor Street  
Portland, Oregon 97204

**CPF 1-2024-041-NOA**

Dear Mr. Karney:

From August 7 to August 11, 2023 of the onsite inspection, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected Northwest Natural Gas Co.'s (Northwest) Mist Underground Natural Gas Storage in Columbia County, Oregon.

As a result of the inspection, PHMSA has identified an apparent inadequacy found within Northwest's plans or procedures. This Amended Notice replaces the Notice that was previously issued on May 7, 2024. The item inspected and the inadequacy is described below:

1. **§ 192.12 Underground natural gas storage facilities.**
  - (a) ....
  - (b) *Depleted hydrocarbon and aquifer reservoir UNGSFs.*
    - (1) **Each UNGSF that uses a depleted hydrocarbon reservoir or an aquifer reservoir for natural gas storage and was constructed after July 18, 2017, must meet all provisions of API RP 1171 (incorporated by reference, see § 192.7), and paragraphs (c) and (d) of this section, prior to commencing operations.**

Northwest's written construction procedures for underground natural gas storage were inadequate to assure safe operation of a pipeline facility. Specifically, Northwest failed to develop and follow a construction procedure for the reuse of tubing during reworking of tubing and packer wells pursuant to American Petroleum Institute Recommended Practice 1171 (2015) (API RP 1171),

Sections 6.3.6 and 11.2.1.<sup>1</sup>

API RP 1171, Section 6.3.6 - *Handling* requires that “[c]asing shall be stored, transported, lifted and installed as specified by the manufacturer and in accordance with API 5C1.” Section 7 of API RP 5C1 includes guidance related to the inspection of used tubing.

API RP 1171, Section 11.2.1 - *Construction, Operation, and Maintenance Procedures* requires in part that operators “... develop and follow procedures for the construction, operation, and maintenance of natural gas storage wells and reservoirs to establish and maintain functional integrity.”

During the inspection, PHMSA determined that well 13bc-34-75 had been reworked. In Northwest's October 3, 2023 response to PHMSA's verbal exit briefing report, Northwest stated:

NW Natural would like to provide clarification on its previous response.

Regarding well 13bc-34-75, the 2023 workover operations did not include installation of new tubing. ***The existing 7" 23# K-55 SMAX was ran back into the hole*** at which each connection was made up in accordance with the manufacturer recommended optimal make up torque.

PHMSA reviewed records and procedures regarding the removal and reinstallation of tubing on the well and found that the procedures did not require the inspection or replacement of the original tubing during reworking tubing and packer wells.

Therefore, Northwest's written procedures required by § 192.12(b)(1) pursuant to meeting the provisions of API RP Sections 6.3.6 and 11.2.1 were inadequate. Northwest must revise its procedures to address the deficiency outlined above.

#### Response to this Notice

This amended Notice is issued in accordance with 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. Any response you may have submitted to the original Notice is no longer applicable. You must respond as set forth below.

Enclosed as part of this Notice is a document entitled Response Options for Pipeline Operators in Enforcement Proceedings.

Enclosed as part of this Notice is a document entitled Response Options for Pipeline Operators in Enforcement 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).

Following the receipt of this Notice, you have 30 days to submit written comments, revised

procedures, or a request for a hearing under § 190.211. 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 an Order Directing Amendment. If 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. § 190.206). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 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 Northwest 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 Robert Burrough, Director, Eastern Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 1-2024-041-NOA** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



<sup>for</sup> Robert Burrough  
Director, Eastern Region  
Pipeline and Hazardous Materials Safety Administration

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

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<sup>1</sup> API RP 1171 Section 11.2.1 - *Construction, Operation, and Maintenance Procedures*

The operator shall develop and follow procedures for the construction, operation, and maintenance of natural gas storage wells and reservoirs to establish and maintain functional integrity. When practicable, the operator's procedures should incorporate applicable industry recommended practices that promote personal and process safety, resource conservation, environmental stewardship, mechanical integrity, and reliable performance.

Procedures shall be in place prior to the development of a new storage facility. The procedures should address the minimum requirements for construction including drilling and other well entry work, reservoir integrity monitoring and management, O&M, emergency response, control room communications and responses, personnel safety, safety management systems, and site-specific procedures determined to be necessary by the operator.

Programs should integrate storage well and reservoir elements so that procedures and programs work together to promote the functional integrity of the storage facility.

The operator should integrate natural gas storage procedures with regulatory-required procedures covering pipeline facilities where possible rather than creating storage-specific documents. The operator might already have in place procedures for operation and maintenance, emergency response, integrity management, control room communications, qualification of personnel, management of change (MOC), and other procedures covering pipeline

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facilities. Specific operations related to natural gas storage wells and reservoirs requiring procedures include but are not limited to drilling, well workover, and reservoir integrity monitoring and management programs. A procedure should be written in clear language with enough detail to allow a person with appropriate training and experience to follow the procedure and achieve the desired objectives on a consistent basis.