



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

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

NOTICE OF AMENDMENT

OVERNIGHT EXPRESS DELIVERY

January 13, 2022

Mr. Roger Blair
President, US Energy
WSP USA Inc.
16285 Park Ten Place, 4th Floor
Houston, Texas 77005

CPF 1-2022-006-NOA

Dear Mr. Blair:

From May 11, 2021 through May 14, 2021, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected WSP USA Inc.'s (WSP) procedures for its Spindletop Underground Storage Facility in Jefferson County, Texas.

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

1. § 192.12 Underground natural gas storage facilities.

(a) ...

(d) *Integrity management program*—

(1) ...

(4) *Integrity management procedures and recordkeeping.* Each UNGSF operator must establish and follow written procedures to carry out its integrity management program under API RP 1171 (incorporated by reference, see § 192.7), section 8 ("Risk Management for Gas Storage Operations"), and this paragraph (d). The operator must also maintain, for the useful life of the UNGSF, records that demonstrate compliance with the requirements of this paragraph (d). This includes records developed and used in support of any identification, calculation, amendment, modification, justification, deviation, and determination made, and any action taken to implement and evaluate any integrity management program element.

WSP's written procedures for carrying out its integrity management program were inadequate to ensure safe operation of a pipeline facility. Specifically, WSP's procedures failed to include sufficient detail to ensure that the results from earlier risk assessments and updated risk analyses were used to determine appropriate reassessment intervals in accordance with § 192.12(d)(3).¹

Under § 192.12(d)(3), WSP is required to determine appropriate intervals for risk assessments for each cavern and well using the results from earlier assessments and updated risk analyses. In addition, API RP 1171, subsection 8.7.1 requires operators to assess the effectiveness of risk monitoring and risk management programs and maintain a continual review and improvement cycle.²

During the inspection, PHMSA reviewed WSP's written integrity management plan, *WSP Underground Storage Integrity Management Plan Spindletop Salt Cavern (2021)* (IM Plan). Based on this review, PHMSA identified that results from earlier assessments and updated risk analyses were not factored into WSP's decision process for determining intervals for reassessment. WSP's process for determining the appropriate interval for risk assessments was limited to a baseline risk model performed for WSP by DNV GL Oil & Gas Services (DNV).³ DNV used a probability of failure calculation to determine proof test intervals for WSP's system. In calculating the probability of failure, DNV used outside data sources rather than WSP cavern data such as results from earlier integrity inspections, monitoring activities, or risk assessments.

WSP's integrity management plan failed to include procedures for establishing the appropriate interval for risk assessments or procedures that would ensure that reassessment intervals would be established using the results from earlier assessments and updated risk analyses.

Therefore, WSP's integrity management procedures required by § 192.12(d)(4) were inadequate. WSP must revise its IM Plan to address the deficiency noted above.

¹ § 192.12 Underground natural gas storage facilities.

(a) ...

(d) *Integrity management program*

(1) ...

(3) *Integrity management re-assessment intervals.* The operator must determine the appropriate interval for risk assessments under API RP 1171 (incorporated by reference, see §192.7), subsection 8.7.1, and this paragraph (d) for each reservoir, cavern, and well, using the results from earlier assessments and updated risk analyses. The re-assessment interval for each reservoir, cavern, and well must not exceed seven years from the date of the baseline assessment for each reservoir, cavern, and well.

² API RP 1171, Section 8

Subsection 8.7.1. General. The operator shall assess the effectiveness of risk monitoring and risk management programs and maintain a continual review and improvement cycle in risk management activities to provide functional integrity of the storage operation. The interval of review and reassessment should be short enough to identify operational and monitoring trends and measure the effectiveness of P&M measures, but long enough that the data and information that can be brought into the analysis are meaningful.

Subsection 8.7.2. Frequency. The operator shall define a review frequency for the risk assessment and perform a review and update of the risk assessment in accordance with the defined frequency.

³ Underground Storage Integrity Management Plan, Appendix C & Appendix D (on file with PHMSA).

2. § 192.12 Underground natural gas storage facilities.

(a) ...

(d) *Integrity management program*—

(1) ...

(4) *Integrity management procedures and recordkeeping.* Each UNGSF operator must establish and follow written procedures to carry out its integrity management program under API RP 1171 (incorporated by reference, see § 192.7), section 8 ("Risk Management for Gas Storage Operations"), and this paragraph (d). The operator must also maintain, for the useful life of the UNGSF, records that demonstrate compliance with the requirements of this paragraph (d). This includes records developed and used in support of any identification, calculation, amendment, modification, justification, deviation, and determination made, and any action taken to implement and evaluate any integrity management program element.

WSP's written procedures for carrying out its integrity management program were inadequate to ensure safe operation of a pipeline facility. Specifically, WSP's procedures failed to address three of the six elements of an integrity management program required by § 192.12(d)(1).⁴

During the inspection, PHMSA reviewed WSP's written integrity management plan, *WSP Underground Storage Integrity Management Plan Spindletop Salt Cavern (2021)* (IM Plan). Based upon this review, PHMSA determined that WSP failed to include three of the integrity management program elements required by § 192.12(d)(1). First, the IM Plan did not provide a framework that described the roles and responsibilities for WSP personnel assigned to develop and implement the procedures required by § 192.12(d), as required by § 192.12(d)(1)(iii). Additionally, the IM Plan's training procedure did not address trainings on integrity management procedures for gas storage operations, as required by § 192.12(d)(1)(iv). Lastly, the IM Plan did not include a plan for continual improvement of the risk management program based on incorporating information gained from experience, as required by § 192.12(d)(1)(vi).

⁴ § 192.12 Underground natural gas storage facilities.

(a) ...

(d) *Integrity management program*

(1) *Integrity management program elements.* The integrity management program for each UNGSF under this paragraph (d) must consist, at a minimum, of a framework developed under API RP 1171 (incorporated by reference, see § 192.7), section 8 ("Risk Management for Gas Storage Operations"), and that also describes how relevant decisions will be made and by whom. An operator must make continual improvements to the program and its execution. The integrity management program must include the following elements:

- (i) A plan for developing and implementing each program element to meet the requirements of this section;
- (ii) An outline of the procedures to be developed;
- (iii) The roles and responsibilities of UNGSF staff assigned to develop and implement the procedures required by this paragraph (d);
- (iv) A plan for how staff will be trained in awareness and application of the procedures required by this paragraph (d);
- (v) Timelines for implementing each program element, including the risk analysis and baseline risk assessments; and
- (vi) A plan for how to incorporate information gained from experience into the integrity management program on a continuous basis.

Therefore, WSP's integrity management plan required by § 192.12(d)(4) lacked three of the six elements specified by § 192.12(d)(1). WSP must revise its IM Plan to address these elements.

Response to this Notice

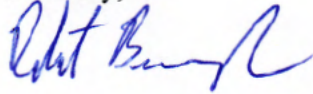
This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. Enclosed as part of this Notice is a document entitled Response Options for Pipeline Operators in Enforcement Proceedings.

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 WSP USA Inc. 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, 840 Bear Tavern Road, Suite 300, West Trenton, NJ 08628. In correspondence concerning this matter, please refer to **CPF 1-2022-006-NOA** and, for each document you submit, please provide a copy in electronic format whenever possible. Smaller files may be emailed to robert.burrough@dot.gov. Larger files should be sent on USB flash drive accompanied by the original paper copy to the Eastern Region Office.

Sincerely,



Robert Burrough
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: Response Options for Pipeline Operators in Enforcement Proceedings