



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

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

NOTICE OF AMENDMENT

VIA E-MAIL TO MR. JESSE ARENIVAS

August 16, 2021

Mr. Jesse Arenivas
President, CO₂ Pipelines
Kinder Morgan CO₂
1001 Louisiana St, Suite 1000
Houston, TX 77002

CPF 5-2021-002-NOA

Dear Mr. Arenivas:

From September 28 through October 2, 2020, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected Kinder Morgan CO₂'s (Kinder Morgan) welding, certification, inspection, and operator qualification procedures.

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

1. § 195.202 - Compliance with specifications or standards.

Each pipeline system must be constructed in accordance with comprehensive written specifications or standards that are consistent with the requirements of this part.

§ 195.204 – Inspection - general.

Inspection must be provided to ensure that the installation of pipe or pipeline systems is in accordance with the requirements of this subpart. Any operator

personnel used to perform the inspection must be trained and qualified in the phase of construction to be inspected. An operator must not use operator personnel to perform a required inspection if the operator personnel performed the construction task requiring inspection. Nothing in this section prohibits the operator from inspecting construction tasks with operator personnel who are involved in other construction tasks.

Kinder Morgan failed to have a procedure specifying what training and qualifications are required by inspectors for the specific phase of construction they are inspecting (i.e. welding inspectors or coating inspectors), pursuant to § 195.204.

Kinder Morgan does have a document they claim they are using to evaluate training and qualifications, but its Operations & Maintenance manual neither explains the procedure nor identifies where the document can be found.

Kinder Morgan must develop a procedure for determining what training and qualifications are needed in the phase of construction to be inspected, including what documentation or records will be maintained.

2. § 195.208 - Welding of supports and braces.

Supports or braces may not be welded directly to pipe that will be operated at a pressure of more than 100 p.s.i. (689 kPa) gage.

Kinder Morgan does not have a procedure for welding supports directly to the pipeline or a statement that prohibits supports being welded directly to the pipeline.

Kinder Morgan must develop a procedure for supports or braces welded directly to the pipe operating at a pressure below 100 psi, and a statement prohibiting supports or braces welded directly to the pipe that will be operated at a pressure of more than 100 psi.

3. § 195.222 - Welders and welding operators: Qualification of welders and welding operators.

(a) Each welder or welding operator must be qualified in accordance with section 6, section 12, Appendix A or Appendix B of API Std 1104 (incorporated by reference, *see* § 195.3), or section IX of the ASME Boiler and Pressure Vessel Code (ASME BPVC), (incorporated by reference, *see* § 195.3) except that a welder or welding operator qualified under an earlier edition than listed in § 195.3, may weld but may not requalify under that earlier edition.

Kinder Morgan does have a procedure for welder qualifications located in its Liquid Operations & Maintenance Manual (L O&M), Procedure #L O&M 401 – Welder Qualification and Testing, Revised March 11, 2020.

In the procedure, Section 5 – Core Information and Requirements, Subsection 5.1 – Qualification Requirements, it states, “[a] welder shall meet one of these eligibility requirements to be tested as a welder: a. The person has passed a similar test recently.” However, the procedure fails to define what “similar” or “recently” means.

Section 5, Subsection 5.8 – Retesting Due to Conditions Beyond the Welder’s Control is confusing and fails to follow the re-testing flowchart found in Attachment 3 – Testing Procedure Chart, found on page 13/13 of the procedure. Attachment 3 – Testing Procedure Chart is confusing. The flow chart has circular paths and fails to clearly show the process of how welders are qualified.

Finally, the procedure fails to identify or mention the American Petroleum Institute’s (API) Standard 1104 – Welding of Pipelines and Related Facilities, and the appropriate sections of 1104 that are incorporated by reference for qualifying welders.

Kinder Morgan must revise its procedure to clearly identify the process used to qualify all welders working on Kinder Morgan assets.

4. § 195.234 - Welds: Nondestructive testing.

(a) A weld may be nondestructively tested by any process that will clearly indicate any defects that may affect the integrity of the weld.

Kinder Morgan’s Liquid Operations & Maintenance Manual, Procedure 454 – Non-Destructive Requirements, Revised August 18, 2018, Section 2.0 – Core Information and Requirements, Subsection 2.2 – Codes and Standards (Page 2/9) incorrectly identifies and implies multiple “approved DOT” procedures and/or standards which are not Incorporated by Reference (IBR) in the applicable Pipeline Safety Regulations.

Specifically, Subsection 2.2 states: “NDT testing shall conform to, or exceed requirements of, the following codes and standards, as applicable:”

Item D - ASME Section V - Nondestructive Examination, *most recent DOT-approved edition* - This section is not IBR and the standard being used isn't clear.

Item G - ASTM E709 - Standard Recommended Practice for Magnetic Particle, *most recent DOT-approved edition* - This standard is not IBR.

Item H - ASTM E165 - Standard Practice for Liquid Penetrate Inspection Method, *most recent DOT-approved edition* - This standard is not IBR.

Item I - ASTM E142 - Standard Method for Controlling Quality of Radiographic Testing, *most recent DOT-approved edition* - This standard is not IBR.

Item J - ASTM E1444-01: Standard Practice for Magnetic Particle Examination, *most recent edition*.

Additionally, the Procedure's Codes and Standards section mentions most recently approved DOT editions for Items D, G, H, and I, however, PHMSA does not Incorporate by Reference these mentioned standards.

Procedure 454 - Section 2.4 Magnetic Particle Test Method does not mention any acceptable standards or explicitly state that magnetic particle testing must meet Section 9.4.2 of API 1104 for acceptability.

Kinder Morgan must revise its Non-Destructive Requirements Procedure to clearly state the correct acceptable standards that will be used for nondestructive testing.

5. § 195.234 - Welds: Nondestructive testing.

(a) ...

(g) At pipeline tie-ins, including tie-ins of replacement sections, 100 percent of the girth welds must be nondestructively tested.

Kinder Morgan's Liquid Operations & Maintenance Manual (L O&M), Procedure 406 – Weld Inspection and Testing, Revised April 8, 2020, Section 3.2 – Non-Destructive Testing, Section 3.2.1 – Non-Destructive Testing in the United States mentions the requirements for § 195.234(d) and (e) but fails to state or identify the requirements under § 195.234 (g) for tie-ins. However, this code requirement is found in Procedure 454 – Non-Destructive Requirements, Table 1.

Kinder Morgan must revise its procedure to include all the requirements found in § 195.234, and correctly reference where the reader will find all non-destructive testing requirements for welds.

6. § 195.216 - Welding: Miter joints.

A miter joint is not permitted (not including deflections up to 3 degrees that are caused by misalignment).

Kinder Morgan's Liquid Operations & Maintenance Manual (L O&M), Procedure 456 – Welding and Fabrication, Revised April 8, 2020, Section 5 – Welding Procedure – General, Item 5.18 is worded oddly and unclearly. The operator appears to be allowing installation of miter joints under the pre-approval of a Kinder Morgan representative but fails to identify a process for this approval.

Kinder Morgan must revise its procedure to clearly identify a process for allowing installation of miter joints and the procedure for installation, or revise the procedure to state Kinder Morgan prohibits the use of miter joints.

7. § 195.404 - Maps and records.

(a) ...

(c) Each operator shall maintain the following records for the periods specified:

(1) The date, location, and description of each repair made to pipe shall be maintained for the useful life of the pipe.

While reviewing project files for in-line inspection (ILI) repairs for sleeve installation and project files for pipeline replacements, the files failed to clearly identify which contractor and/or employee performed specific covered tasks. While operator qualification (OQ) records for contractor and employees were provided in the project files, compliance could not be determined due the records failing to indicate who performed each covered task.

Kinder Morgan must develop or identify a clear process that will document which qualified personnel performs each covered task.

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 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).

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 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 Kinder Morgan CO₂ maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Dustin Hubbard, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 5-2021-002-NOA** and, for each document you submit, please provide a copy

in electronic format whenever possible.

Sincerely,

Dustin Hubbard
Director, Western Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

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

cc: PHP-60 Compliance Registry
PHP-500 D. Fehling (#20-191754)