



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

8701 South Gessner, Suite 1110
Houston, TX 77074

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 15, 2013

Mr. Richard Boocock
Vice President of Global Operations
Air Products & Chemicals Inc.
7201 Hamilton Blvd
Allentown, PA 18195-4153

CPF 4-2013-1017M

Dear Mr. Boocock:

During the month of November 2012, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS) conducted an inspection of your hydrogen pipeline from Harris County, Texas, to a facility located in St. Bernard Parish, Louisiana. The inspection consisted of O&M procedures, record and field audits pursuant to Chapter 601 of 49 United States Code.

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

1. §192.605 Procedural manual for operations, maintenance, and emergencies

(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.

(2) Controlling corrosion in accordance with the operations and maintenance requirements of subpart I of this part.

§192.463 External corrosion control: Cathodic protection.

(a) Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in Appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a

level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.

Air Products O&M procedure 34-0028, Pipeline Corrosion Control Procedure, is inadequate that it does not mention the application of Part 192, Appendix D - Criteria for Cathodic Protection and Determination of Measure.

During the inspection in 2012, PHMSA reviewed both the procedures and records. The review of the procedures revealed that Air Products does not address voltage (IR) drops for a valid interpretation of the voltage measurements of their hydrogen pipeline system in both East and West Gulf Coast Operating Areas. Air Products' O&M Procedure, 34-0028 (Pipeline Corrosion Control Procedure) is applicable to Part 195 (Transportation of Hazardous Liquids by Pipeline) and does not include, where voltage (IR) drops other than those across the structure-electrolyte boundary must be considered for valid interpretation of the voltage measurement

Air Products O&M Procedure, 34-0028(Pipeline Corrosion Control Procedure) must be amended to reflect the application of Part 192, Appendix D.

2. §192.605 Procedural manual for operations, maintenance, and emergencies

(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.

(2) Controlling corrosion in accordance with the operations and maintenance requirements of subpart I of this part.

§192.465 External corrosion control: Monitoring.

(d) Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring.

Air Products O&M Procedure, 34-0028 (Pipeline Corrosion Control Procedure) does not reflect the timeframe to repair the broken and/or bad test leads of the test stations. PHMSA reviewed four years (2009 through 2012) records of annual pipe-to-soil cathodic potential survey of the hydrogen line in East Gulf Coast Operating area. The review identified numerous instances where all the lead wires of a test station are bad and/or two of the three lead wires of a test station were bad. Due to bad and/or broken test leads, Air Products could not take any pipe-to-soil potential readings at the specific test points for several years. Air Products could not demonstrate that any remedial action was taken to correct those deficiencies.

Air Products O&M Procedure, 34-0028 (Pipeline Corrosion Control Procedure) must be amended to reflect the timeframes to correct any deficiencies.

3. §192.605 Procedural manual for operations, maintenance, and emergencies

(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.

(2) Controlling corrosion in accordance with the operations and maintenance requirements of subpart I of this part.

Air Products O&M Procedure, 34-0028 (Pipeline Corrosion Control Procedure), Section 8.8.1 through 8.8.6 do not reflect the circumstances in which a close-interval survey (CIS) is practicable and/or necessary.

The Procedure describes the necessary steps how to execute a close-interval survey. But it does not annotate the circumstances which triggers the requirements of a close-interval survey.

Air Products must amend their O&M Procedure, 34-0028 (Pipeline Corrosion Control Procedure) to reflect the circumstances where close-interval survey is determined to be necessary and practicable.

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 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 Air Products maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to R. M. Seeley, Director, Southwest Region, Pipeline

and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 4-2013-1017M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



R. M. Seeley
Director, Southwest Region
Pipeline and Hazardous Materials Safety Administration

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