

**August 10, 2015**

Mr. Seifi Ghasemi  
Chairman, President, and Chief Executive Officer  
Air Products and Chemicals, Inc.  
7201 Hamilton Blvd.  
Allentown, PA 18195-1501

**Re: CPF No. 4-2013-1001**

Dear Mr. Ghasemi:

Enclosed please find the Final Order issued in the above-referenced case. It withdraws both allegations of violation and the proposed civil penalty. Therefore, this case is now closed. Service of the Final Order by certified mail is deemed effective upon the date of mailing, or as otherwise provided under 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,

Jeffrey D. Wiese  
Associate Administrator  
for Pipeline Safety

Enclosure

cc: Mr. Rodrick M. Seeley, Director, Southwest Region, OPS  
Mr. James B. Curry, Esq., Van Ness Feldman, LLP, 1050 Thomas Jefferson St. N.W.,  
7<sup>th</sup> Floor, Washington, D.C., 20007, Counsel for Respondent

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

**U.S. DEPARTMENT OF TRANSPORTATION  
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION  
OFFICE OF PIPELINE SAFETY  
WASHINGTON, D.C. 20590**

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<b>In the Matter of</b>	)	
	)	
<b>Air Products and Chemicals, Inc.,</b>	)	<b>CPF No. 4-2013-1001</b>
	)	
<b>Respondent.</b>	)	
	)	

**FINAL ORDER**

From June – September 2012, pursuant to 49 U.S.C. § 60117, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), conducted a new-construction pipeline safety inspection of the facilities and records of Air Products and Chemicals, Inc. (Air Products or Respondent), in Lake Charles and Plaquemine, Louisiana. The company’s 184-mile Gulf Coast Connection Project (GCCP) connects Air Products’ hydrogen pipeline systems in Louisiana and Texas.

As a result of the inspection, the Director, Southwest Region, OPS (Director), issued to Respondent, by letter dated January 2, 2013, a Notice of Probable Violation, Proposed Civil Penalty, and Proposed Compliance Order (Notice). In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Air Products violated 49 C.F.R. §§ 192.461 and 192.303 and assessing a civil penalty of \$80,000 for the alleged violations. The Notice also proposed ordering Respondent to take certain measures to correct the alleged violations.

Respondent requested the case file by letter dated January 14, 2013, and requested a 30-day extension based on its receipt of the case file. OPS forwarded the case file and extended the response deadline to February 22, 2013. Respondent submitted a timely Request for Hearing and OPS Preliminary Statement of Issues by letter dated February 21, 2013, and on March 15, 2013, the Presiding Official scheduled a hearing for May 16, 2013. On April 17, 2013, Respondent withdrew its hearing request and asked that its final response deadline be extended to May 17, 2013, a request granted by the Presiding Official.

Air Products responded to the Notice by letter dated May 16, 2013 (Response). The Respondent contested the allegations, presented information seeking elimination of the proposed penalty, and requested a hearing. By letter dated April 17, 2013, Respondent withdrew its request for a hearing and thereby authorized the entry of this Final Order without further notice. On March 28, 2014, Air Products submitted a written response to the Regional Director’s December 9, 2013 Recommendation and requested that it be included in the case file.

## WITHDRAWAL OF ALLEGATIONS OF VIOLATION

The Notice alleged that Respondent violated 49 C.F.R. Part 192., as follows:

**Item 1:** The Notice alleged that Respondent violated 49 C.F.R. § 192.461(e), which states:

**§ 192.461 External corrosion control: Protective coating.**

(a) ...

(e) If coated pipe is installed by boring, driving, or other similar method, precautions must be taken to minimize damage to the coating during installation.

The Notice alleged that Respondent violated 49 C.F.R. § 192.461(e) by failing to take precautions to minimize damage to coated pipe installed by boring, driving, or other similar method. Specifically, the Notice alleged that Air Products failed to take precautions when installing 22-mils Fusion Bonded Epoxy coating (FBE) pipe to minimize damage to the coating at bored and horizontal directional-drilled (HDD) crossings. According to PHMSA, the company's own construction specifications called for coating thicknesses to be 22 mils nominal if only an FBE coating were being applied. In cases where the company was performing "directional drills in geographic locations where soil or rock formations may be abrasive to the external coating," then "Abrasion Resistant Overlays (ARO) should be considered...."

PHMSA alleged that Air Products personnel had acknowledged using only FBE coating in its HDD locations, rather than adding AROs on top of the FBE coating. According to the Notice, Air Products' staff further stated that extra precautions such as AROs were not needed on the GCCP due to the company's operating experience and long history with native soils (primarily clay and sand) along the Gulf Coast. PHMSA noted that despite several requests, Air Products had been unable to provide PHMSA with documentation from the manufacturer of the 22-mils FBE coating that it was adequate and resistant to damage from bored and HDD installations.

In its Response, Air Products contested the allegation of violation and presented several reasons why the company believed it had taken adequate precautions to minimize damage to pipe coating during HDD installations on the GCCP. First, it challenged the statement in PHMSA's Violation Report that "3M FBE 6233 (without abrasion resistant overlays) is not designed for HDD applications, bores and river crossings."<sup>1</sup> According to Respondent, the manufacturer's brochure did not make any such statement, nor did PHMSA produce any evidence showing that the 3M FBE 6233 coating was inappropriate for HDD installations.<sup>2</sup>

Second, Air Products asserted that it had taken precautions for its bored and HDD installations by selecting a thicker application of FBE coating that it normally used. According to the Response:

Air Products' engineering specification provides for 14-16 mils of

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<sup>1</sup> Pipeline Safety Violation Report (Violation Report), (January 2, 2013) (on file with PHMSA), at 4.

<sup>2</sup> Response, at 5.

FBE coating (section 4.1.1.2) in trenched underground piping installation, and provides for the use of thicker, 22 mil FBE applications (section 4.1.1.4) for directional drills. This thicker FBE coating provides additional protection to ensure the integrity of the coating is maintained during the HDD installation.<sup>3</sup>

In addition, the company provided evidence to support its argument that the thicker, 22-mils FBE coating was a recognized and acceptable method of protecting pipe used in bored and directional drills. Specifically, it cited a National Association of Corrosion Engineers (NACE) paper that supported the use of *either* increased-thickness FBE coatings or an additional layer of ARO coating.<sup>4</sup> It also cited NACE Recommended Practice RP0394, section 6.1.5.2, as support for its contention that a higher minimum-thickness FBE coating may be needed where the pipe “is placed through a drilled crossing” or where “rocky or high-impact backfill” is used.<sup>5</sup>

Third, Air Products argued that the precautions it had taken to minimize damage to coated pipe in HDD installations were adequate because the company’s experience with local soil conditions indicated there was no need to use the extra step of applying AROs. The company acknowledged that under its own specifications, it was required to “consider” AROs “for directional drills in geographic locations where soil or rock formation may be abrasive to the external coating.”<sup>6</sup> According to Air Products, even though it was not required to consider ARO because of its experience in the Gulf Coast region, it still considered, but rejected, the additional step of using AROs on the GCCP.<sup>7</sup>

Fourth, the company submitted a recent hydrogeologist’s report that had reviewed the core borings performed on the GCCP and other available data on the company’s Gulf Coast right-of-way. The report concluded that “at the vast majority of the [project’s] HDDs and all of the borings, geological data demonstrates that no gravel or rock is present.” Finally, Respondent submitted a statement from one of its contract engineers that he did not recall encountering rock or gravel during the GCCP or observing any coating damage after HDD installations.<sup>8</sup>

I have carefully reviewed all of the evidence in the record and considered the arguments made by both parties. Several issues are clear. First, it is undisputed that Air Products did not use the AROs that PHMSA believes were necessary to minimize damage to coated pipe used for bored and HDD installations on the GCCP; instead, it used a thicker FBE coating than what Air Products used in normal, trenched underground piping installations. Second, it is clear that

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<sup>3</sup> *Id.* at 6.

<sup>4</sup> *Id.* at 7.

<sup>5</sup> *Id.* at Exhibit 2 (pp. 5-6).

<sup>6</sup> *Id.* at 10, quoting Exhibit 1 (page 4).

<sup>7</sup> Air Product’s Senior Project Manager stated by affidavit that due to the non-abrasive soil conditions found on the Gulf Coast, “the final decision not to select ARO [was] . . . based on our experience completing directional drills in the Gulf Coast during the last 20 years.” *Id.* at Exhibit 4 (page 4).

<sup>8</sup> *Id.* at 11, Exhibit 6.

PHMSA has not produced any evidence to support its position that AROs were necessary in this case to minimize damage to the pipe. The parties obviously disagree on what constitutes adequate “precaution” to minimize damage to pipe during HDD installations. It is also clear, legally, that PHMSA bears the burden of proving a violation of § 192.461(e) by a preponderance of the evidence. On balance, I do not believe that PHMSA has met its burden of proving that the 22-mils FBE coating used by Air Products did not constitute a reasonable precaution, under the circumstances of this particular case, or, conversely, that the additional step of applying ARO on top of the 22-mils FBE coating was essential to minimize damage to the pipe.

While Respondent’s actions may not have been the most conservative measures available or ones that PHMSA would prefer for an operator to use on HDD crossings, I do not believe PHMSA has substantiated a violation of the Pipeline Safety Regulations. Accordingly, I find, based on the totality of the circumstances, that Air Products’ actions do not violate 49 C.F.R. § 192.461(e). Based upon the foregoing, I hereby order that Item 1 be withdrawn.

**Item 2:** The Notice alleged that Respondent violated 49 C.F.R. § 192.303, which states:

**§ 192.303 Compliance with specifications or standards.**

Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.

The Notice alleged that Respondent violated 49 C.F.R. § 192.303 by failing to construct each transmission line or main in accordance with comprehensive written specifications or standards that are consistent with Part 192. Specifically, the Notice alleged that Air Products performed the construction task of brazing without a qualified or approved brazing procedure. According to OPS, its inspector observed Air Products’ personnel installing 23 “decouplers”<sup>9</sup> on its pipeline by brazing M8 pins on the carrier pipe. When asked by the inspector to provide a copy of its brazing specification or standard, Air Products allegedly provided the vendor’s (BAC) brazing procedure, but could not provide documentation that the procedure had been properly reviewed, approved or accepted by Air Products prior to commencement of the brazing work.

The Notice further alleged that Air Products failed to comply with its own construction procedure, *American Fabrication and Erection Specification, Pipelines – Installation, 670.810, Sections 4.1 and 4.1.1* (Welding Specification), which required that the procedure developed by the contractor and the qualification of the individual worker performing the work both be qualified in accordance with ASME BPVC, Section IX, and that such qualification be furnished to Air Products for approval, prior to commencement of the brazing work on the pipeline.

Air Products contested the allegation, stating that its Welding Specification applied only to welding, and not pin brazing. Given that pin brazing is not subject to its own Welding Specification, Air Products argued that it was not required to document the review of the vendor’s pin-brazing procedure.

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<sup>9</sup> Decouplers are devices installed on pipelines for the purpose of eliminating direct current voltages within range that could harm the pipeline.

OPS acknowledged that Air Products' Welding Specification, as cited in the Notice, did not cover brazing but argued, nevertheless, that Respondent was still responsible for having a "specification or standard" in place under § 192.303 to cover brazing and to ensure that its vendor's "pin brazing procedure (BAC Corrosion Control Ltd) to [sic] be reviewed and approved as well as qualification record of the individual performing brazing, prior to the commencement of brazing."<sup>10</sup>

The Region is correct that Air Products is required to have and approve comprehensive construction specifications and standards ensuring that any pin brazing work being performed in pipeline construction is being carried out in a manner consistent with Part 192. However, the Notice specifically ties this responsibility to Respondent's Welding Specification and alleges that Air Products failed to qualify its pin brazing procedure in accordance with the Welding Specification. Since pin brazing is not covered under this particular specification, the Region has failed to meet its burden on proving a violation of 49 C. F. R. § 192.303.

Accordingly, after considering all of the evidence, I hereby order that this Item be withdrawn.

#### **ASSESSMENT OF PENALTY**

As discussed above, Items 1 and 2 have been withdrawn. Therefore, I also withdraw the proposed civil penalty for both Items.

The terms and conditions of this Final Order are effective upon service in accordance with 49 C.F.R. § 190.5.

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Jeffrey D. Wiese  
Associate Administrator  
for Pipeline Safety

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Date Issued

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<sup>10</sup> Region Recommendation, at 10.