



United States Steel Corporation  
Mon Valley Works - Irvin Plant  
P. O. Box 878  
Mailstation #100  
Dravosburg, PA 15034

**Scott D. Buckiso**  
General Manager

April 4, 2012

Byron Coy, PE  
Director, Eastern Region  
Pipeline and Hazardous Materials Safety Administration  
820 Bear Tavern Road, Suite 103  
West Trenton, NJ 08628

**Subject:** Notice of Amendment sent to United States Steel Corporation on March 29, 2012  
CPF 1-2012-0001M

Dear Mr. Coy:

United States Steel Corporation (USS) takes seriously its responsibilities regarding pipeline safety with its coke oven gas pipeline. The operation of this pipeline is headquartered in West Mifflin, Pennsylvania. A substantial portion of this pipeline is above ground, so protection against atmospheric corrosion is a continuing concern. USS appreciates the professionalism demonstrated by the two Pipeline and Hazardous Materials Safety Administration (PHMSA) representatives who conducted the inspection of the USS procedures for operations and maintenance during the week of April 25, 2011, and also the helpful advice that they were able to provide.

As a result of the inspection, the PHMSA representatives suggested that USS make changes to the atmospheric corrosion procedures to address how to grade the severity of the atmospheric corrosion, how to determine whether remediation on atmospheric corrosion was required, and the time permitted for completing the necessary repairs. As a result of this suggestion, changes were made to Procedure 2-O "Corrosion Control", Section 5.3 "Monitoring for Atmospheric Corrosion". To address the rating of atmospheric corrosion, 2-O Table 5.3(d) was added. To address how to determine whether remediation on atmospheric corrosion was required and the time permitted for completing the necessary repairs, Section 5.3(e) was added. These additions meet the regulatory requirements of Subpart I and the suggestions of the PHMSA representatives. A copy of these changes was submitted to PHMSA on May 10, 2011 by e-mail. A copy of this e-mail is attached for your review.

A more detailed response to the Notice of Amendment follows.

## Apparent Inadequacies Described in the Notice of Amendment

The Notice of Amendment states that apparent inadequacies were found within the USS plans or procedures, as described below.

### **§192.605 Procedural manual for operations, maintenance, and emergencies**

Each operator shall include the following in its operating and maintenance plan:

(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.

The Notice of Amendment further states the following.

US Steel's atmospheric corrosion control procedures were inadequate in that they did not include details for controlling corrosion in accordance with the operations and maintenance requirements of Subpart I of this part. Specifically, the procedures failed to address:

1. How to grade the severity of atmospheric corrosion
2. How to determine whether remediation on corrosion was required
3. The time permitted for completing the necessary repairs

## Regulatory Requirements

The Notice of Amendment does not identify the specific sections of Subpart I for which the USS procedures were determined to be inadequate. However, there are only two sections in Subpart I that address atmospheric corrosion. These sections are as follows.

### **§ 192.479 Atmospheric corrosion control: General.**

- (a) Each operator must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.
- (b) Coating material must be suitable for the prevention of atmospheric corrosion.
- (c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, the operator need not protect from atmospheric corrosion any pipeline for which the operator demonstrates by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will—
  - (1) Only be a light surface oxide; or
  - (2) Not affect the safe operation of the pipeline before the next scheduled inspection.

[Amdt. 192-93, 68 FR 53901, Sept. 15, 2003]

**§ 192.481 Atmospheric corrosion control: Monitoring.**

- (a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

<b>If the Pipeline is located</b>	<b>Then the frequency of inspection is</b>
Onshore	At least once every 3 calendar years, but with intervals not exceeding 39 months
Offshore	At least once each calendar year, but with intervals not exceeding 15 months

- (b) During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.
- (c) If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by §192.479.

[Amdt. 192-93, 68 FR 53901, Sept. 15, 2003]

**USS Procedures Relating to Atmospheric Corrosion**

The USS procedures that address atmospheric corrosion are provided in Attachments A, as follows.

Attachment A

E-mail that was sent to PHMSA on May 10, 2011, including, as an attachment:

Procedure 2-O "Corrosion Control", following sections.  
Section 3 "Atmospheric Corrosion Control"  
Section 5.3 "Monitoring for Atmospheric Corrosion"

## Comments Regarding How to Grade the Severity of Atmospheric Corrosion

The regulatory requirement (see §192.481) is to inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, and if atmospheric corrosion is found during an inspection, to provide protection against the corrosion as required in §192.479.

Section 192.479 requires USS to clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except that USS need not protect from atmospheric corrosion any pipeline for which it demonstrates by investigation or experience appropriate to the environment of the pipeline that corrosion will (1) only be a light surface oxide, or (2) not affect the safe operation of the pipeline before the next scheduled inspection. Atmospheric inspections are performed every 3 years.

Procedure 2-O "Corrosion Control", Section 5.3 "Monitoring for Atmospheric Corrosion" is the procedure that USS uses for monitoring atmospheric corrosion (see Attachment A). The Atmospheric corrosion rating criteria is presented in 2-O Table 5.3(d). This classification has been proven by experience to be adequate for this pipeline in the environment that exists. USS has never experienced a leak due to atmospheric corrosion on this pipeline.

In summary, USS meets the requirements of §192.481 regarding monitoring for atmospheric corrosion.

## Comments Regarding How to Determine Whether Remediation on Corrosion was Required

Section 192.481(c) states that if atmospheric corrosion is found during an inspection, USS must provide protection against the corrosion as required by §192.479.

Section 192.479 states that USS need not protect from atmospheric corrosion any pipeline for which it demonstrates by investigation or experience appropriate to the environment of the pipeline that corrosion will (1) only be a light surface oxide, or (2) not affect the safe operation of the pipeline before the next scheduled inspection. Atmospheric inspections are performed every 3 years.

Procedure 2-O "Corrosion Control", revised Section 5.3 "Monitoring for External Corrosion", paragraph (e) covers how the determination will be made regarding whether remediation is required.

Experience has shown that this procedure is adequate. There has never been a leak due to atmospheric corrosion on this pipeline.

## Comments Regarding the Time Permitted for Completing the Necessary Repairs

Procedure 2-O "Corrosion Control", revised Section 5.3 "Monitoring for External Corrosion", paragraph (e) covers the time frame permitted for completing the necessary repairs. Atmospheric corrosion with a rating of 2-C or 3-C in accordance with 2-O Table 5.3(d) will be remediated within 12 months. Other corrosion ratings will be monitored, but remediation is not required.

## Overall Summary Comments

The USS procedures regarding atmospheric corrosion are adequate and meet the requirements of Subpart I. This is evidenced by the fact that there has never been a corrosion leak resulting from atmospheric corrosion on this pipeline. The issue of compliance with the atmospheric corrosion regulations is a technical compliance issue and a cosmetic issue – it is not a safety issue.

USS believes that the actions that have been taken address the concerns that PHMSA has raised regarding procedures for protection against atmospheric corrosion.

Sincerely,



Scott D. Buckiso  
General Manager  
U. S. Steel - Mon Valley Works