



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Four Penn Center – 1600 John F Kennedy Blvd
Philadelphia, Pennsylvania 19103-2852

Report Title: Clean Air Act Inspection of US Steel Clairton
Inspection Date(s): March 22, 2023
Regulatory Program(s): Title V, NESHAP
Company Name: US Steel Clairton Coke Works
Facility Name: US Steel Clairton Coke Works
Facility Location: 400 State Street
Clairton, PA 15025
Latitude: 40.305088 **Longitude:** -79.876911
County/Parish: Allegheny County
AFS Number: 3400076475
Permit Number: 0052-OP22
NAICS Code: 331111 **SIC:** 3312
Unique Project #: 3E23CA081A

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EPA Lead Inspector

Signature

Paul Arnold

Date

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Date

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I. Introduction

The United States Environmental Protection Agency (EPA) conducted Geospatial Measurement of Air Pollution (GMAP) monitoring at US Steel Clairton Coke Works (Clairton or Facility) to verify compliance with applicable State and Federal regulations. The Allegheny County Health Department (ACHD) was notified of the inspection on March 3, 2023, via email. On March 16, 2023, EPA notified the Facility of the planned inspection, via phone.

A. Summary of the Facility

The Facility is located at 400 State Street, Clairton, PA 15025. According to US Steel representatives, Clairton produces approximately 13,000 tons of coke per day. The coke produced at Clairton is used during the production of steel at the US Steel facilities which are in the Mon Valley Region of Pittsburgh. The Clairton Plant began operation in 1901. Clairton employs about 1,400 people and operates 24 hours a day.

The Facility received Title V Operating Permit (0052-OP22) from ACHD, issued on November 21, 2022.

Clairton is classified as Major for Carbon Monoxide (CO), Oxides of Nitrogen (NO_x), Particulate Matter (PM), Sulfur Dioxide (SO₂), Volatile Organic Compounds (VOC), and Hazardous Air Pollutants (HAPs). The Facility is subject, or is potentially subject, to the following federal regulations:

- 40 CFR Part 63, Subpart CCCCC
- 40 CFR Part 63, Subpart L

B. Inspection Opening Conference

At 9:10 AM on March 22, 2023, EPA inspectors arrived at the Facility for GMAP monitoring and conducted a brief opening conference. Clairton was represented by Matthew Delibero, Brett Tunno and Mike Dzurinko. Gary Fischman and Cali Conley, of ACHD, were also present. EPA inspectors, Paul Arnold, Christopher Williams, Philip Myers, and Armando Bustamante presented their credentials and explained the purpose of the visit was to conduct mobile monitoring using Geospatial Measurement of Air Pollution (GMAP). Chris Williams explained that the GMAP vehicle has the capability to monitor Hydrogen Sulfide, volatile organic compounds, Methane, Sulfur Dioxide and Benzene. EPA informed the facility representatives of their right to claim any confidential business information (CBI). At that time, Clairton representatives did not claim any photos or documentation as CBI.

II. Site Activity/Process Description

Clairton brings in coal by barge and loads the coal into coke ovens. The coal is heated in coke ovens for 18 to 22 hours and the resulting coke is shipped offsite via railcar. The coke oven gas

is captured and used by various processes at the three US Steel Facilities (Clairton, Irvin, and Edgar Thompson) in the Mon Valley Area.

The opening conference concluded at 10:30 AM.

III. Observations

EPA inspectors were led on a drive through the Facility at 10:50 AM by Mike Dzurinko of US Steel. At 10:50 AM, EPA initiated GMAP monitoring. Gary Fischman and Cali Conley, of ACHD, and Paul Arnold, Christopher Williams, Philip Myers, and Armando Bustamante, of EPA, were present during GMAP monitoring.

The EPA GMAP vehicle was lead through various interior roads of the Facility. EPA observed GMAP readings which are represented in Table 1. A designation of “elevated” means elevated concentrations of the listed pollutant were measured above background levels using GMAP. Actual numeric concentration readings observed during the monitoring event were not yet verified at the time of this report, but can be shared, with Clairton, once the data becomes verified and available. Air samples taken, via Suma Canister, are also represented in Table 1.

TABLE 1					
Time	VOC (ppb)	Benzene (ppb)	H2S (ppb)	SO2 (ppb)	Approximate Location
11:00 am	elevated				Tar process area
11:48 am	elevated	elevated			Light oil loading and storage
11:55 am					Air sample taken. Suma Can # 3068
12:01 pm	elevated	elevated			Light oil loading and storage
12:52 pm	elevated	elevated	elevated		Tar decanter
12:52 pm			elevated		Standpipe was lit
1:06 pm	elevated	elevated			Tar loading
1:06 pm	elevated	elevated			Tar loading
1:06 pm					Air sample taken. Suma Can # 9494
1:06 pm					Air sample taken. Suma Can # 10025
1:23 pm		elevated			Tar processing
1:26 pm		elevated	elevated	elevated	C66, C68, C72 batteries
1:36 pm	elevated		elevated		C66, C68, C72 batteries

1:37 pm		elevated			C71 battery
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From about 1:26 PM through 1:37 PM, EPA observed yellow plumes emitted from coke oven battery C72.

The GMAP monitoring concluded at 2:00 PM.

IV. Closing Conference

EPA inspectors and Gary Fischman and Cali Conley, of ACHD, and Matthew Delibero, Brett Tunno and Mike Dzurinko, of US Steel, had a brief closing conference to ask additional questions and discuss observations. The EPA inspectors noted that the investigation is on-going, and any areas of concern identified in the final reports do not necessarily reflect a violation or deviation, rather, they are areas that will require further investigation. EPA also noted that they would issue an inspection report within in 60 days, with a copy to the County. Simultaneously, EPA will perform a detailed review of records and may have additional questions. The inspection concluded at 2:30 PM.

The following have been identified as *potential* issues during the inspection. These are issues that require either further investigation by EPA, or additional information or explanation by Clairton.

- EPA observed plumes of emissions in the vicinity of coke batteries C66 through C72.
- EPA detected elevated pollutant concentrations above background using GMAP at several process units, including downwind of coke batteries C66 through C72.

V. List of Attachments

Attachment 1: Opening Conference sign in sheet.

