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

Report Title:	Geospatial Measurement of Air Pollution of Monroe Energy LLC
Inspection Date(s):	March 29, 2023
Regulatory Program(s):	Title V, NSPS, NESHAP, MACT
Company Name:	Monroe Energy LLC – Trainer Refinery
Facility Name:	Monroe Energy LLC – Trainer Refinery
Facility Location:	4101 Post Rd Trainer, PA 19061
Latitude:	39.826431 **Longitude:** - 75.405123
County/Parish:	Delaware County
AFS/Air-ICIS Number:	PA000293037
Permit Number:	23-00003
NAICS Code:	324110 **SIC:** 2911
Unique Project #:	3E23CA091A

Facility Representatives: **Point of Contact**

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EPA Lead Inspector Signature Parmatma Adhikari Digitally signed by Parmatma Adhikari Date: 2023.05.17 06:19:24 -04'00' **Parmatma Adhikari** **Date**

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Supervisor Signature KRISTEN HALL Digitally signed by KRISTEN HALL Date: 2023.05.17 08:40:48 -04'00' **Kristen Hall** **Date**

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I. Introduction

The United States Environmental Protection Agency (EPA) conducted mobile monitoring using Geospatial Measurement of Air Pollution (GMAP) at Monroe Energy LLC – Trainer Refinery (Monroe Energy or Facility) to determine if elevated levels of detectable compounds were present. The Pennsylvania Department of Environmental Protection (PADEP) was notified of the inspection on March 15, 2023, via email. On March 28, 2023, EPA notified the Facility of the planned inspection, via phone.

A. Summary of the Facility

The Facility is located at 4101 Post Rd, Trainer, PA 119061. Monroe Energy is a petroleum refinery, and its products include jet fuel, diesel, gasoline, and LPGs (propane and butane).

The Facility received Title V Operating Permit (23-00003) from PADEP, issued on June 25, 2014.

Monroe Energy is classified as major source for Nitrogen Oxide (NO_X), Volatile Organic Compounds (VOC), and Hazardous Air Pollutants (HAPs). The Facility is subject, or is potentially subject, to the following federal regulations:

- 40 CFR 60 Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units Operating permit terms and conditions. Emission monitoring for particulate matter and nitrogen oxides.
- 40 CFR 60 Subpart Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007
- 40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR 60 Subpart J - Standards of Performance for Petroleum Refineries
- 40 CFR 60 Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
- 40 CFR 60 Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
- 40 CFR 60 Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 Standards.
- 40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
- 40 CFR Part 63 Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
- 40 CFR Part 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters
- 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

- 40 CFR Part 63 Subpart UUU - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units
- 40 CFR Part 63 Subpart Y - National Emission Standards for Marine Tank Vessel Tank Loading Operations
- 40 CFR Part 63 Subpart G - National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater
- 40 CFR Part 61, Subpart FF - National Emission Standard for Benzene Waste Operations

B. Inspection Opening Conference

At 10:00 AM on March 29, 2023, EPA inspectors arrived at the Facility for GMAP monitoring and conducted a brief opening conference. Monroe Energy was represented by Matt Torell (Environmental Leader), Liz Clapp (Environmental Manager) and Greg Merrill (Environmental Compliance Program Lead). Heather Henry, of PADEP, was also present. EPA inspectors, Parmatma Adhikari, Scott Yanos, Nicholas Bobbs and Philip Myers presented their credentials and explained the purpose of the visit was to conduct mobile monitoring using Geospatial Measurement of Air Pollution. Matt Torell asked about the technology and principle using in the GMAP system and Nicholas Bobbs explained that the GMAP vehicle has the capability to monitor Hydrogen Sulfide (H_2S), Volatile Organic Compounds (VOCs), Methane (CH_4), Sulfur Dioxide (SO_2) and Benzene (C_6H_6).

II. Site Activity/Process Description

Monroe Energy manufactures jet fuel, gasoline, diesel, and home heating oil. The trainer refinery has two storage areas: the north tank farm and the south tank farm. At the time of the GMAP Survey, Liz Clapp, environmental manager of the Facility, mentioned that turnaround work is starting, such as replacing Fluid Catalytic Cracking (FCC) unit, but nothing is currently offline.

The opening conference concluded at 10:40 AM.

III. Observations

EPA inspectors were led on a drive through the Facility at 10:48 AM by Matt Torell, Liz Clapp and Greg Merrill of Monroe Energy. At 10:50 AM, EPA initiated GMAP monitoring. Heather Henry, of PADEP, and Parmatma Adhikari, Scott Yanos, Nicholas Bobbs and Philip Myers, 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 the Facility, once the data becomes verified and available.

TABLE 1					
Time	**VOC (ppb)**	**Benzene (ppb)**	**H2S (ppb)**	**SO2 (ppb)**	**Approximate Location**
11:17 am	Elevated				Near Tank # 335
12:18 am	Elevated				South of the Alkylation unit
12:25 pm	Elevated				South of the Alkylation unit, nearby HF acid unit.

The GMAP monitoring concluded at 12:50 PM.

IV. Closing Conference

EPA inspectors, Heather Henry, of PADEP, and Matt Torell, Liz Clapp and Greg Merrill of Monroe Energy, 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 State. Simultaneously, EPA will perform a detailed review of records and may have additional questions. The inspection concluded at 1:02 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 Monroe Energy.

- Elevated VOC emissions near Tank # 335 and South of the Alkylation Unit.