

ENCLOSURE A

United States Environmental Protection Agency (EPA) Region 4

Air Enforcement Branch

Inspection Report

I. GENERAL INFORMATION

Facility Name: Shell Oil Company – Birmingham Terminal

Location (Address): 2601 Wilson Road
Birmingham, AL 35211

Inspection Date: July 29, 2021

Type of Inspection (Full or Partial Compliance Evaluation): Partial Compliance Evaluation

ICIS-Air Number: ALJEF0000107300249

EPA Investigator(s)/Inspector(s): Steve Rieck
EPA Region 4
Environmental Scientist

Richard Helmich
EPA National Enforcement Investigations Center (NEIC)
Chemist

Nicolas Bobbs
EPA Office of Enforcement and Compliance Assurance (OECA)
Environmental Engineer

State/Local Investigator(s)/Inspector(s): Jason Howanitz,
Jefferson County Department of Health

Person(s) Contacted at Facility (Name and Title): Marty Etienne
Lead Operator

Lisa Barfield
Terminal Operator

Report Prepared by: Steve Rieck

II. FACILITY INFORMATION

A. Facility and Permit Information

Facility and Permit Information	Comments
1. Type of facility (e.g., chemical plant, refinery, cement manufacturer, etc.).	Bulk gasoline terminal
2. Air permit number(s) and type of permit (e.g., Title V, PSD, Synthetic Minor, etc.).	Synthetic Minor Operating Permit #4-07-0580-04
3. Air permit issuance date.	July 11, 2017
4. Air permit expiration date.	No Expiration
5. Facility classification (Major, Synthetic Minor/Conditional Major, Minor).	Synthetic Minor
6. Major source pollutants (if applicable).	N/A
7. Applicable regulations (e.g., State Implementation Plan, MACT Subpart FFFF, NSPS Subpart EEEE, etc.).	40 C.F.R. Part 63, Subpart BBBBBB
8. Types of air emission points (e.g., tanks, process vents, boilers, etc.).	Truck loading rack and associated equipment, Storage tanks and associated equipment.
9. Types of air pollution control equipment (e.g., baghouse, scrubber, afterburner, etc.).	Vapors collected at the loading rack are sent to a Vapor Recovery Unit (VRU). Storage tanks are equipped with Internal Floating Roofs (IFRs).

B. Process Description (provide narrative or attach description provided by the company or excerpts from the permit)

The Shell Oil Company – Birmingham Terminal is a bulk gasoline facility that handles gasoline, diesel fuel, ethanol, additives, and other volatile organic products. These products are delivered to the facility by pipeline and trailer truck and stored in internal floating roof storage tanks. The products are loaded into trailer trucks using loading racks at the facility.

III. INSPECTION ACTIVITIES

Activity	Yes No NA	Comment
Opening Meeting	Yes	
1. Date and time entered the facility.		July 29, 2021, at approximately 9:50 am
2. Credentials presented to facility personnel (include name and title).	Yes	All inspectors presented their credentials.
3. Conducted an opening meeting to explain the purpose and objectives of the inspection.	Yes	EPA inspectors arrived on site and discussed inspection objectives with facility staff. The purpose of the inspection was to determine compliance with Clean Air Act regulations, as well as to obtain ambient emission data through use of the Geospatial Measurement of Air Pollution (GMAP) mobile monitoring unit. The GMAP is a mobile air monitoring vehicle with analyzers for methane, benzene, toluene, ethylbenzene, xylene, and other VOCs. The GMAP allows for real-time monitoring and mapping of pollutants while the vehicle transverse the facility.
4. Discussed safety issues.	Yes	Inspectors discussed facility-specific safety and emergency procedures.
5. Discussed which records to be reviewed.	Yes	The Region 4 inspector received a copy of the facility layout.
6. Discussed the facility walk-through and the areas to be observed in the facility.	Yes	The Region 4 inspector will use an Optical Gas Imaging (OGI) camera to survey storage tanks. The NEIC and OECA inspectors will operate the GMAP vehicle to measure ambient levels of various pollutants.
7. Discussed facility policy regarding photographs or video (if applicable).	Yes	Inspectors indicated that videos may be taken with the OGI camera and that copies of the video would be sent to the company.
8. Discussed the use of the infrared camera, TVA, PID, and any other equipment.	Yes	Inspectors discussed use of the OGI camera and the GMAP vehicle.
9. Discussed CBI.	Yes	Inspectors discussed that copies of videos or pictures taken with the OGI camera will be provided to the facility to determine whether they contain CBI.

Records Reviewed at the Facility		
10. The types of records reviewed and the time period reviewed.	Yes	The Region 4 inspector received a copy of the facility layout.
Facility Walk-Through Observations		
11. The process equipment observed and the associated operational rate observed (e.g., Furnace 1 production rate was 5 lbs/hr on 1/1/15, at 2:00 pm – permit requires max rate at 6 lbs/hr). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	Yes	The Region 4 inspector used the OGI camera to survey facility operations. The GMAP vehicle also measured concentrations of pollutants in the ambient air. A summary of the OGI camera survey is provided below. <u>Tank 10</u> Tank 10 is an IFR gasoline storage tank. Emissions were observed from the side vent of the tank. After ascending to the roof of the tank, emissions were observed from the central tank vent. No emissions were observed from the access hatch. <u>Tank 9</u> Tank 9 is an IFR gasoline storage tank. From the top of the tank, emissions were observed from the central tank vent. No emissions were observed from the access hatch. <u>Loading Rack</u> Dispersed VOC emissions were observed above the loading rack. The inspector was not able to determine a source point. During truck loading, no emissions were observed from the gasoline loading hoses and equipment.
12. The type of process parametric monitoring observed and the associated value observed (e.g., Furnace 1 flux injection rate was 200 lbs/batch at 1/1/15, at 2:00 pm – permit requires max rate at 225 lbs/batch).	N/A	

Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.		
13. If process equipment or parametric monitoring equipment was not operating, state the reason by facility personnel why the equipment was not operating.	N/A	
14. The type of air pollution control equipment, the process equipment it is controlling, and the associated parametric monitoring value observed (e.g., baghouse pressure drop, temperature, scrubber flow rate, etc.). (For example - RTO 1 controlling furnace 1, 1,500 degrees F on 1/1/15, at 2:00 pm – permit requires 1,400 degree F or higher). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	Yes	The loading rack is connected to a VRU to capture VOC vapors collected during truck loading operation. The facility also maintains a Vapor Combustion Unit as a backup control device.

15. Continuous emissions monitoring devices and values observed. (e.g., CEMS, COMs, etc.). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	No	
16. If air pollution control equipment was not operating, state the reason by facility personnel why the equipment was not operating.	N/A	
17. Capture and collection system (enclosures and hoods) observations, if applicable (e.g., the magnitude and duration of emission escaping capture from the hood).	N/A	
18. Ductwork transferring the emissions to the air pollution control device observations, if applicable (e.g., the magnitude and duration of emission escaping from the ductwork, holes or deterioration in ductwork, no deterioration observed, etc.).	N/A	
19. Any existing unpermitted emission points, new unpermitted emission points, or non-permitted construction activities observed. (if yes, describe in the comments field).	N/A	

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20. Were any visible emissions observed? (if yes, identify the location and equipment).	No	
21. Was a Method 9 reading performed? (if yes, identify the location and equipment).	No	
22. Was the cause of the visible emissions investigated and the information documented?	N/A	
23. Was a Method 22 performed for visible emissions? (if yes, identify the location and equipment).	No	
24. Identify the cause of the visible emissions as explained by facility personnel, if applicable.	N/A	
25. Was the infrared camera used? If so, attach the video log (which includes the equipment ID, and the date and time the video was recorded) and videos to this report.	Yes	A video log is provided in Enclosure B.
26. Was the TVA used? If so, identify the equipment monitored and the results. Provide the date and time the information was recorded by the inspector. Include actual instrument readings for each piece of equipment monitored above the leak definition and/or where the infrared camera identified a release.	No	

An attachment may be used for a large amount of information.		
27. Was the PID used? If so, identify how the PID was used and the results. Provide the date and time the information was recorded by the inspector. An attachment may be used for a large amount of information.	No	
Closing Meeting		
28. Conducted a closing meeting.	Yes	The inspection team returned to the office to conduct a closing conference.
29. Summarize any additional information needed, if applicable?		
30. Accept a declaration of CBI, if applicable?	Yes	Facility staff will review OGI videos taken for any potential CBI.
31. Discussed observations.	Yes	The team provided an overview of the day's inspection and observations. The GMAP vehicle operator discussed preliminary observations of ambient pollutant data. The data will be provided to Region 4 for review and distribution to the facility, separate from this report.
32. Discussed next steps, if applicable?	Yes	Inspectors discussed providing videos to the facility and a timeline for the inspection report.
33. Date and time inspection concluded.		The inspection team left the facility at 12:00 pm.
Miscellaneous		
34. Include any additional observations, if applicable.		

Enclosure A – Inspection Report

EPA Investigator/Inspector Signature:

STEPHEN RIECK

Digitally signed by STEPHEN
RIECK
Date: 2021.10.27 09:13:30
-04'00'

EPA Supervisor Signature & Title

JASON
DRESSLER

Digitally signed by JASON
DRESSLER
Date: 2021.10.28 08:13:16 -04'00'

Chief, North Air Enforcement Section