



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 6TH AVENUE
SEATTLE, WASHINGTON 98101

DATE: See date of Section Chief signature

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Phillips 66 Portland Facility, Portland, Oregon

FROM: Daniel Heins, Environmental Scientist
Air Toxics Enforcement Section, EPA Region 10

THRU: Derrick Terada, Acting Section Chief
Air Toxics Enforcement Section, EPA Region 10

TO: File

BASIC INFORMATION

Facility Name: Phillips 66 Portland Facility
Facility Location: 5528 NW Doane Avenue, Portland, OR 97210

Date of Inspection: June 21, 2022

EPA Inspector(s):

1. Daniel Heins, Environmental Scientist

Other Attendees:

1. Todd Burke, Terminal Supervisor – Phillips 66
2. Kelly Hayes, Washington/Oregon Environmental Coordinator – Phillips 66
3. Mark Catlow, Lubricants Plant Manager – Phillips 66*
4. George Yun, Air Quality Inspector – Oregon Department of Environmental Quality (DEQ)
5. Chris Moore, Air Quality Inspector – DEQ

* Mark Catlow was present during the opening conference but not during the site tour or closing conference once Daniel Heins established that the inspection was concerned with the fuels terminal operations, not the lubricants operations.

Contact Email Address: Kelly.W.Hayes@p66.com, William.T.Burke@p66.com

Purpose of Inspection: Tanks inspection

Facility Type: Bulk fuels terminal / gasoline distribution facility

Arrival Time: 13:45

Departure Time: 15:30

Inspection Type: Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☐ Provided Small Business Resource Information Sheet
- ☒ Small Business Resource Information Sheet not provided. Reason: Not a small business
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Phillips 66 representatives.

Process Description:

Phillips 66's Portland Terminal & Lubricants Facility ("the Facility") contains two business units: the lubricants unit and the midstream unit. This inspection is exclusively focused on the operations of the midstream unit, which contains all fuels terminal operations.

Phillips 66 stores gasoline, diesel, transmix, ethanol, biodiesel, butane, and fuels additives at the Facility. The Facility receives gasoline and diesel primarily via the Olympic Pipeline and marine vessels. Ethanol, biodiesel, and additives arrive via truck. The Facility has the capacity to receive fuels by rail, but only uses rail for the lubricants unit. The Facility distributes fuel primarily via its truck rack. Diesel is the only fuel unloaded to marine vessels, and thus there is no vapor recovery/combustion unit on the Facility's dock. Vapors from the truck loading rack are controlled by a vapor recovery unit.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

Daniel Heins made observations with a FLIR GF320 optical gas imaging camera ("the FLIR"), capable of seeing hydrocarbon emissions plumes. EPA also used a Thermofisher TVA2020 flame ionization device ("the TVA") to measure the total hydrocarbon concentration in parts per million as methane (ppm) from vents or through hatches at the tops of tanks.

Daniel Heins focused the tour on the Tank Farm 2, on the north portion of the Facility. See Appendix A for site maps. This was where all gasoline, ethanol, and transmix tanks at the Facility are located.

Daniel Heins observed and recorded emissions plumes out of tanks 2915, 3411, 3413, 3409, 3408, and 3407, all of which contained gasoline. He additionally observed and recorded emissions plumes out of tank 3410 (ethanol) and 4259 (transmix). No plumes were seen for tank 4212 (ethanol). For each of these tanks, Daniel Heins took TVA readings on the tank roofs from center vents if available or from hatches lifted by Facility personnel to facilitate readings.

Photos and/or Videos: were taken during the inspection. See Appendix B.

Field Measurements: were taken during this inspection. See Appendix C.

RECORDS REVIEW

Ahead of the inspection, Daniel Heins requested and reviewed a site map and a list of storage tanks with details of tank product, construction, size, and applicable air regulations.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

Daniel Heins requested tank levels of selected tanks at the Facility from the time of the inspection.

Concerns:

Daniel Heins noted the elevated hydrocarbon concentrations at many of the tanks, and that concentrations would likely be significantly higher towards the bottom of the tank headspace. Daniel Heins noted that this could potentially be an indication of an issue in the performance of the internal floating roof in suppressing emissions and that there is potential that the concentrations may be high enough at the bottom to pose a safety concern.

DIGITAL SIGNATURES

Heins, Daniel  Digitally signed by Heins,
Daniel
Date: 2022.07.14 12:04:13
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Daniel Heins, Report Author

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TERADA  Digitally signed by
DERRICK TERADA
Date: 2022.07.18
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Derrick Terada, Acting Section Chief