From: OCE
To: Smith, Raleigh; OCE; R12WQ
Subject: RE: Phillips 66 Pasadena Terminal Quarterly Aluminum Report
Date: Wednesday, April 1, 2020 5:12:54 PM
Attachments: image001.png

Good afternoon, Mr. Smith -

Thank you for contacting the TCEQ. During the COVID-19 pandemic, the following alternatives are acceptable to TCEQ if a customer is unable to provide an original (i.e., wet) signature required by permit/rule/statute needed for a regulatory document submittal:

- TCEQ will accept signature stamps, electronic signatures, and electronically submitted documents with a statement describing who is authorizing the electronic submission of the regulatory document. The email addresses you can use for your facility are:
  - TCEQR12AIR, TCEQR12WATER, TCEQR12WASTE, as appropriate for the required report.
- A written summary (e.g., cover letter, email narrative) explaining the COVID-19 circumstance leading to the need for this compliance flexibility must be included with the regulatory document.
- Once the COVID-19 pandemic has ended: Customers will need to resume providing hard copies with original signatures. Following the pandemic, if revisions to the previous submittal are needed to address any previous report inaccuracies, then customers must submit a revised submittal. Do not resubmit the underlying report/data already submitted during the pandemic timeframe

Feel free to contact me with questions or concerns.

Regards –

Tracy Miller

Tracy Miller
Special Assistant to the OCE Deputy Director
512.239.4127 Office
512.634.7614 Mobile

From: Smith, Raleigh [redacted]
Sent: Wednesday, April 1, 2020 3:24 PM
To: OCE <OCE@tceq.texas.gov>; R12WQ <R12WQ@tceq.texas.gov>
Subject: Phillips 66 Pasadena Terminal Quarterly Aluminum Report

To whom it may concern,

Due to risks with the use physical mail and Houston's Shelter in Place order, the attached report is being sent electronically. It has also been sent via fax as advised by Michael Sunderlin.

If there any concerns, questions, or issues, please advise.

Thanks,

Raleigh Smith
Environmental Specialist, Midstream Gulf Coast

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March 26, 2020

Reference No. 1145961

Texas Commission on Environmental Quality
Attn: Enforcement Division (MC224)
P.O. Box 13087
Austin, Texas 78711-3087

Re: April 2020 Quarterly Progress Report – Aluminum Effluent Limitations Attainment
Phillips 66 Pipeline LLC and Phillips 66 Carrier LLC
Pasadena Products Terminal
TPDES Permit No. WQ0002125000

Dear Enforcement Staff:

This letter is written to discuss the progress made toward attainment of water quality based final effluent limitations for Total Aluminum at Outfalls 002, 003, and 004. Phillips 66 Pipeline LLC and Phillips 66 Carrier LLC (Phillips 66) is committed to determining the causes of the exceedances and implementing the appropriate correction action as needed in order to achieve compliance no later than three (3) years from the date of the permit issuance.

1. Background

Phillips 66 operates a refined products storage terminal, pipeline pump station, and truck loading facility located at 100 Jefferson Road in Pasadena, Texas. The facility currently has approximately 26 tanks onsite containing a variety of products and fuel additives. These tanks typically contain conventional gasoline, No. 2 Diesel fuel, Biodiesel, Denatured Ethanol, Butane, Ecoclean TXLED, Transmix, Kerosene and numerous fuel additives. The facility also includes an administrative building, warehouse, and a truck loading dock for products.

The facility maintains a Texas Pollutant Discharge Elimination System (TPDES) Permit to treat and discharge wastes. Under TPDES Permit No. WQ0002125000, the facility is permitted to discharge stormwater and hydrostatic test water through four (4) outfalls designated as Outfalls 001, 002, 003 and 004. As part of the monitoring requirements, Total Aluminum levels must be monitored and reported for discharges from outfalls 002, 003 and 004. Outfall 001 does not have a monitoring requirement for Total Aluminum. Grab samples must collected once per week when discharging from outfalls 002, 003 and 004. Currently, there are no daily average or daily maximum limitations for Total Aluminum, however; values for both parameters are reported. Starting three (3) years after permit issuance, daily maximum and single grab limitations will be effective for this facility.

TPDES Permit No. WQ0002125000 was recently renewed on November 8, 2017. Other Requirements (7) requires Phillips 66 to initiate and complete an investigation to determine the cause of the elevated aluminum concentrations in each of the three (3) outfalls within one (1) year of the permit effective date. Quarterly progress reports documenting progress toward attainment are also required.

2. Outfall Description

2.1 Outfall 002

Outfall 002 discharges to the Southern Pacific Railroad ditch on the northwest side of the terminal. The sample collection point is located at the outlet of the tank dike on the northwest side of the terminal (see Figure 1). It drains a large bermed area containing the following tanks and contents: Tank 1502 and 1503 – kerosene, Tank 1201 – unleaded gasoline, Tanks 101 and 201– wastewater, Tank 202 – Transmix, Tank 1501 – premium unleaded gasoline, Tank 1201 – unleaded gasoline, and an oil/water separator. Tank 1502 was hydrostatically tested in December 2019 and the results of the hydrostatic testing as relates to this report are discussed in Section 4.

2.2 Outfall 003

Outfall 003 also discharges to the Southern Pacific Railroad ditch that parallels the northern boundary of the facility. Sampling is conducted at the outlet of the office area on the west side of the terminal. Storm water drains from around the LPG system, the manifold pump area, butane tanks and the loading rack for the butane trucks.

2.3 Outfall 004

Outfall 004 discharges to the Southern Pacific Railroad ditch (see Figure 1). Samples are collected at the outfall of the south tank dike area on the west side of the terminal entrance. The outfall receives discharges from four (4) bermed areas each containing tanks with a variety of contents. Tanks and contents include: Tank 3002 (Light Cycle Oil), Tank 2301 Unleaded Gasoline, Tank 1301 Premium Unleaded Gasoline, and Tank 1701 (Unleaded Gasoline and Tank 3001 (#2 Low Sulfur Diesel). The outfall also receives drainage from around the LPG flare. The two new tanks under construction in the drainage area of Outfall 004 adjacent to Tank 3002 were hydrostatically tested in January 2020. These tanks are designated as Tanks 1504 and 1505. The results of this testing as pertains to this report are also discussed in Section 4.

3. Outfall Data (December 2019 to February 2020)

The following table contains the results of sampling conducted during this quarter. The Single Grab and Daily Maximum Total Aluminum limitations effective three (3) years from the permit effective date is 1.766 mg/l for both limitations for outfalls 002-004.

Table 3.1 Summary of Total Aluminum Values (December 2019 to February 2020)

Outfall	Month of Discharge	Minimum value (mg/l)	Maximum value (mg/l)
002	12/2019	<0.5	<0.5
002	01/2020	0.5	1.7
002	02/2020	0.84	0.84
003	12/2019	No Discharge	No Discharge
003	01/2020	0.588	2.8
003	02/2020	1.3	1.3
004	12/2019	No Discharge	No Discharge
004	01/2020	<0.5	4.4
004	02/2020	<0.5	13

4. Current Progress

Progress continues on identifying the source(s) of the aluminum in the stormwater discharges from outfalls at this facility. Efforts were made to correlate ongoing site activities with elevated aluminum levels within the outfall drainage areas, however, no definitive correlations were found. The following activities have been completed at the site:

- Outfalls 002, 003 and 004 were investigated to evaluate the feasibility of installing sampling ports in the discharge lines to allow for discrete sampling of the discharges upstream of the receiving stream.

  On January 17, 2019, Tiana Andriamanarivo, Raleigh Smith and Alonzo Techeira of Phillips 66, and Barbara Sullivan of GHD, Inc. conducted a site investigation to continue to address the recommendations of the November 7, 2018 Aluminum Study. All three sampling locations for outfalls 002, 003 and 004 were evaluated during the January 17, 2019 site investigation by Phillips 66 staff, GHD staff and an outside contractor to determine the need and feasibility of installing sampling ports.

  Results and Conclusions:

  Outfall 002 discharges directly under an earthen containment dike to a railroad ditch. Water is released using a valve at the ditch. During the investigation, the upstream side of the containment berm was investigated. The galvanized discharge pipe was almost completely submerged in accumulated water behind the dike. The top of the dike was approximately 10-12 feet above the level of the water and the contractor indicated that the galvanized pipe was badly corroded. Based on safety concerns on accessing a new sampling port, it was determined that the sampling point for outfall 002 should not be relocated.

  Outfall 003 discharges via a valve to a railroad ditch. Stormwater from within the containment dike for this outfall discharges via a concrete vault directly to a partially open concrete pipe within a ditch that runs along the property line. As the pipe is partially open, this allows runoff from the adjacent property to commingle with the storm water. It was decided to relocate the sample point

to the sample vault. Stormwater from the facility does not enter the ditch or the partially open pipe however; stormwater may enter from adjacent facilities.

Outfall 004 stormwater flows off the property directly into a roadside ditch. No need for a sampling port was identified as the ditch originates on Phillips 66 property.

The following sample related activities continue to be ongoing at this site:

- Samples continue to be collected for analysis during discharge events for Dissolved Aluminum. Table 4.1 is a summary of the data collected during this quarter. Dissolved Aluminum levels continue to remain consistently below the detection limit of 0.5 mg/l even when elevated Total Aluminum levels are detected. The one exception noted was for outfall 002 on September 23, 2019 when the dissolved aluminum value was 5.3 mg/l. The dissolved aluminum values have not been above the detection limit of <0.5 mg/l for any of the outfalls prior to this sample event. Sampling for dissolved aluminum will continue during routine sampling of the outfalls. Samples collected on December 29, 2019 at outfall 002 and February 2 and 9, 2020 at outfall 004 include both stormwater and hydrostatic test water.

Table 4.1 Summary of Total versus Dissolved Aluminum Values (December 2019 to February 2020)

Outfall	Dates of Discharge	Total Aluminum value (mg/l)	Dissolved Aluminum value (mg/l)
002	12/29/2019	<0.5	<0.5
002	1/5/2020	0.5	<0.5
002	1/12/2020	1.35	0.0926 U
002	1/23/2020	1.7	<0.5
002	1/26/2020	0.67	<0.5
002	2/24/2020	0.84	<0.5
003	12/2019	No Discharge	No Discharge
003	1/12/2020	0.588	0.0926 U
003	1/23/2020	2.8	<0.5
003	1/26/2020	0.62	<0.5
003	2/24/2020	1.3	<0.5

004	12/2019	No Discharge	No Discharge
004	1/12/2020	<0.5	0.0926 U
004	1/20/2020	0.94	<0.5
004	1/26/2020	4.4	<0.5
004	2/2/2020	0.84	<0.5
004	2/9/2020	0.56	<0.5
004	2/16/2020	<0.5	<0.5
004	2/24/2020	13	<0.5
004	2/24/2020	2.4	Not collected

- Laboratory duplicates for Total and Dissolved Aluminum will be sent to a separate NELAP accredited laboratory for two sampling events.

  Actions to be taken: Laboratory duplicates will be sent to a separate NELAP accredited laboratory for two sampling events during this upcoming quarter if discharge events occur.

- Field blanks for Total Aluminum will be collected to ensure that no field contamination is occurring for two sampling events.

  Actions to be taken: Field blanks for two sampling events will be collected and analyzed during this upcoming quarter if discharge events occur.

- Sampling will be amended to include measurement of dissolved oxygen, conductivity, temperature and turbidity with a calibrated multi-parameter water quality logger for two sampling events in the upcoming quarters.

  Actions to be taken: Sampling will be amended to include measurement of dissolved oxygen, conductivity, temperature and turbidity for two sampling events during this upcoming quarter if discharge events occur.

- If required GHD will send an experienced scientist or geologist to oversee sampling and correct sampling protocols.

  Actions to be taken: To be determined.

- Hydrostatic testing was conducted on Tank 1502 in December 2019. Hydrostatic test water utilized at the site is firewater which is comprised of freshwater from the City of Pasadena and water from the Houston Ship Channel. A sample of the hydrostatic test water from Tank 1502 was collected on December 28, 2019 and a sample of the combined discharge of the hydrostatic test water and stormwater was collected on December 29, 2019. Both sample results were within anticipated permit limitations.

Table 4.2 Outfall 002 - Summary of Hydrostatic Test Water Values (December 2019)

Sample Location	Dates of Sample Collection	Total Aluminum value (mg/l)	Dissolved Aluminum value (mg/l)
Hydrostatic Test Water – Tank 1502 (no discharge from outfall 002)	12/28/2019	0.256	No sample collected
002	12/29/2019	<0.5	<0.5

- Hydrostatic testing and discharge of hydrostatic test water from the two new storage tanks 1504 and 1505 was completed in February 2020. Hydrostatic test water comprised of firewater was used to fill Tank 1504 followed by Tank 1505. The same water was used in both tests.

Table 4.3 Outfall 004 - Summary of Hydrostatic Test Water Values (February 2020)

Sample Location	Dates of Collection	Total Aluminum value (mg/l)	Dissolved Aluminum value (mg/l)
Hydrostatic Test Water – Tank 1504 pre-fill (no discharge from outfall 004)	1/14/2020	<0.5	<0.5
Hydrostatic Test Water – Tank 1505 (no discharge from outfall 004)	2/1/2020	1.3	<0.5
Hydrostatic Test Water – Tank 1505 (no discharge from outfall 004)	2/1/2020	6.9	<0.5
004	2/2/2020	0.84	<0.5
004	2/9/2020	0.56	<0.5

If you have any questions, please contact me at (832) 765-1730 or at [redacted].

Sincerely,

Raleigh Smith

Environmental Specialist

Enclosures: Figure 1