

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection**

P040868471

<b>FACILITY:</b> EES COKE BATTERY L.L.C.		<b>SRN / ID:</b> P0408
<b>LOCATION:</b> 1400 Zug Island Road, RIVER ROUGE		<b>DISTRICT:</b> Detroit
<b>CITY:</b> RIVER ROUGE		<b>COUNTY:</b> WAYNE
<b>CONTACT:</b>		<b>ACTIVITY DATE:</b> 08/02/2023
<b>STAFF:</b> Katherine Koster	<b>COMPLIANCE STATUS:</b> Compliance	
<b>SUBJECT:</b> FY23 Targeted Inspection		<b>SOURCE CLASS:</b> MEGASITE
<b>RESOLVED COMPLAINTS:</b>		

**REASON FOR INSPECTION:** Targeted Inspection  
**INSPECTED BY:** Katie Koster  
**PERSONNEL PRESENT:** Laura Harris, EES Environmental Engineer  
**FACILITY PHONE NUMBER:** 313-297-4183 (phone); 734-320-5255 (cell)

**FACILITY BACKGROUND**

EES Coke Battery, LLC was organized and formed by DTE to assume the coke making operations from United States Steel Great Lakes Works (USSGLW) in 2004. Prior to USSGLW ownership, the coke making operations were owned and operated by National Steel Company. The equipment is located on the southern half of Zug Island in the city of River Rouge. The property is owned by USSGLW. EES supplies coke to about seven different customers.

While the No. 5 battery and No. 3 byproducts operations and coal piles are managed by DTE, the coke making operations rely on USSGLW for steam, power, and water. The battery used to receive blast furnace gas from USSGLW for underfire combustion, but that practice was halted by EES in July 2012 as DTE claimed that moisture in the gas was degrading the regenerators below the ovens. EES also claimed that preheating the gas to drive off the moisture was not feasible. COG also used to be combusted at the Hot Strip Mill but that was halted by USSGLW in mid-2016.

At this time, coke oven gas is still used at the No 2 boilerhouse on Zug Island. While USS is the owner of this equipment, EES Coke is the operator as the boilers service the coke battery. DTE River Rouge used to combust some of the COG but that equipment was shut down April 2022.

**COMPLAINT HISTORY**

No complaints have been received against this facility for the last several years.

**OUTSTANDING CONSENT ORDERS**

The facility is operating under some old Wayne County consent orders including SIP Consent Order No. 27-1993 for fugitive dust. In December 2013, the facility was referred for escalated enforcement action due to issues with the CERMS systems for monitoring NOx, CO, SO2, and flow; including incorrect reporting of downtime and manual revisions of the CERMS data unbeknownst to AQD at the time. The referral also included other recently cited violations related to inadequate maintenance, inspections, and recordkeeping, a failed stack test, and improper calibration gas used for leak checks under Part 61 Subpart L and V. This is consent order AQD CO No. 57-2014.

**OUTSTANDING VIOLATION NOTICES**

At this time, facility does not have outstanding AQD violation notices.

**REGULATORY ANALYSIS**

On June 13, 2014, the facility submitted PTI application, 51-08C, to increase the yearly coal throughput limit, permanently remove the heat input restrictions, modify/remove emission limits, and modify a variety of recordkeeping and reporting conditions. The permit evaluation form states that it is a major modification under PSD for NOx and greenhouse gases. This permit replaced 71-13 and 51-08. The permit was issued in November 2014. 71-13 was a temporary permit to suspend the daily and annual heat input limits on the battery.

The whole coke making facility is incorporated as Section 7 of the United States Steel Great Lakes Works (USSGLW) Renewable Operating Permit (ROP) Number 199600132d. However, USSGLW and EES

submitted a request in December 2012 to administratively split the ROP into two documents. This process has started as the USSGLW ROP renewal has gone through public comment and does not contain conditions related to EES. EES was assigned a separate SRN, P0408, and reports annual emissions in MAERS under this SRN.

Benzene and HCl are the main HAP's emitted; primarily from the underfire stack and the COG flare.

#### Federal Regulations

The No. 5 coke oven battery is subject to MACT Standards promulgated in 40 CFR Part 63, Subpart CCCCC (NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks) and Subpart L (National Emission Standards for Coke Oven Batteries). The No. 3 Coke Byproducts plant is subject to NESHAPs promulgated in 40 CFR, Part 61, Subpart FF (NESHAP for Benzene Waste Operations), Subpart L (NESHAP for Benzene Emissions from Coke By-Product Recovery Plants), and Subpart V (NESHAP for Equipment Leaks (Fugitive Emission Sources)).

#### **PROCESS OVERVIEW**

The vast majority of the coal is received by vessel and off loaded on the southern end of the island. Four to six types of coal are used in the coke making process. A mix of low, mid, and hi vol coal is used and properties such as ash and sulfur content and strength are important. Coal is loaded into a truck and driven to the coal hopper. From the hopper, it enters the mixing building. Blended coal is pulverized, mixed, and conveyed to the coal bunker on top of the battery. Along the way, coal tar sludge is sprayed onto the conveyor for bulk density control. No 2 fuel oil is also used for this purpose. The coal bunker holds approximately ½ day worth of coal.

Coal is stored in a bunker until dispensed into one of two larry cars on the top of the battery. Coal is then charged into an oven with the larry car and leveled with the leveling bar. It is important to create an even headspace so that gas is drawn off evenly across the oven during coking. Each oven has four ports with lids on the top for charging and two sides with removable doors. Approximately 35 tons of wet coal/32 tons dry coal is charged per oven and 23 - 25 tons of coke are produced. The normal coking time is about 17 hours at a temperature of approximately 2200F. If there is reduced demand for coke, then the battery has to shift to an extended coking time; however, at this time, it is on the normal coking cycle. The larry car has to return to the bunker to be refilled before each charge. If coal has too much moisture, there may be an opportunity to increase oven temperatures. Otherwise, the moisture can cause excess emissions during push and travel.

The staggered oven pushing is to ensure even distribution of the coke oven gas across the collector main. The coking process takes place in the absence of oxygen to drive off residual VOCs and other impurities in the coal and to form a hard mass known as metallurgical coke. This coke can withstand the very high temperatures in iron making blast furnaces. There is a limit to how long coking time can be extended because the process will not generate enough gas to run the battery and the battery will not be able to produce metallurgical coke of the required size. Important factors for coke are stability (strength), size (permeability), sulfur (<0.85%), and ash (<10%), and volatility. Samples are tested daily. Approximately 6% of coke made is breeze and nut coke. 117 ovens per day is maximum that can be pushed. Ovens are 18 inches wide.

Ovens are charged and pushed in a specific sequence whereby odd numbers are pushed and then even or vice versa unless there is an extended coking schedule. Ovens are kept under slightly positive pressure while coking and slightly negative pressure while charging. Negative pressure is achieved with the use of an assist oven and jumper pipe. High pressure flushing liquor is in use to aid in off gas collection during charging. The flushing liquor shock cools the raw coke oven gas causes it to contract quickly which pulls a vacuum.

When pressure in the crossover main(s) reaches 0.80 inches w.c, the bleeder stack(s) open. There are two bleeders per crossover and four crossovers. The bleeders are equipped with automatic igniters so that raw COG is combusted when they are opened. The main function of the bleeders is to flare gas until the pressure returns to normal. The company sends reports to AQD on when the bleeders open, length of time of opening, and certification that the emissions were ignited.

Once the coking cycle is complete, the oven doors are removed, and coke is pushed from the oven into a receiving car. The car moves along the oven to the quench tower where is it deluged with water. The coke is then poured out onto the coke wharf for further cooling. Emissions from pushing are captured by a movable hood positioned over the receiving car. The hood ducts emissions to the Pushing Emissions Control System (PECS) baghouse. There is no hood over the car while it is traveling to the quench tower. Baffles in the quench tower must be maintained to suppress the release of particulate emissions. Twelve thousand gallons

of water are used per quench. After cooling, coke is conveyed to the screening station and usually loaded into rail cars. Sometimes it is dumped on the ground to be loaded into trucks and taken off site.

Off gas from the ovens (raw coke oven gas or raw "COG"), is collected through the suction main to the four crossover mains and into the collecting main. The collecting main feeds the byproducts recovery plant. Flushing liquor is sprayed in the collecting main for cooling and tar begins to precipitate out. Tar, light oil, and ammonia are recovered from the coke oven gas through a series of decanters, condensers, heat exchangers, and stills. As of an email from Laura Harris on September 28, 2023, coal tar and light oil are sold offsite. The byproducts recovery process is completely enclosed; nitrogen blanketing is in use for emissions suppression. Emissions from this process are only attributable to leaks or storage tank emissions and load out activities. The wash oil has a high boiling point; it absorbs benzene, toluene, and xylene, and is sent through the distillation column. Coal tar is loaded by rail or truck to be taken off site.

Excess gas that is not needed in the underfire system by the battery or by the No 2 boilerhouse is sent to the main flare. At this time, there is a permit application in house for Carmeuse Lime to burn some of the COG in its lime kiln.

Process water from moisture in the coal is contaminated with ammonia, phenols, heavy metals and mercury. The onsite wastewater treatment plant removes phenols and NH<sub>3</sub> biologically.

The battery operates 24 hours a day, 7 days a week. Approximately every 20 minutes there is a reversal whereby the fuel gas combustion is turned off for approximately 2 minutes. The heating flues become exhaust flues and vice versa to even out the heat distribution throughout the battery. The products of combustion of 100% COG are exhausted out of the natural draft stack. There is a CEMS in the combustion stack for measuring NO<sub>x</sub>, SO<sub>2</sub>, and CO lb/hr emissions. COG is mainly comprised of hydrogen and CH<sub>4</sub> and has an average heating value of 500 BTU/ft<sup>3</sup>. It also contains H<sub>2</sub>S, benzene, and PAH's.

A contractor, AKJ, used to oversee the tar sludge handling, storage and loading process. This has been reclaimed by EES to be done in house.

### **INSPECTION NARRATIVE**

On August 2, 2023, I arrived on Zug Island for an inspection of EES Coke. I was met by Laura Harris, EES Environmental Engineer. Brenna Harden, prior environmental contact, is no longer employed at DTE.

USSGLW Zug Island operations have been temporarily idled as of March 31, 2020. However, the coke battery, owned by DTE, has continued operating. Additionally, EES Coke is now operating the US Steel No 2 boilerhouse in order to provide steam and power to the battery operations. US Steel is still the owner of this equipment.

The coke battery is on normal coking schedule and a push occurs approximately every 11 minutes. Coking time is 17 hours.

I did not observe any visible emissions from the underfire combustion stack or the PECS stack. We walked along battery push side and coke side. I did not see any leaking doors.

Doors 69 – 85 were blocked by the pusher machine. Today, 15, 41, 46, and 63 were out of service. Oven 53 was empty earlier in the day but was just the charged in the AM.

We went into the CEMS room which is located near the base of the combustion stack. It was around noon. I recorded the following:

NO: 297 ppm

NO<sub>x</sub>: 293 ppm

SO<sub>2</sub>: 375 ppm

CO: 154.8 ppm

Vacuum: (-) 23 in Hg

Dilution air: 48 psi

I could not locate blowback pressure reading and Ms. Harris did not know where it was.

EES Method 303 readers are the same as the prior visit: Toby, Kera, and Jared; all employed by Siddock.

There are two larry cars that are alternated to balance out wear. Preventive maintenance is scheduled bi-monthly and quarterly for the telescoping chutes that deliver coal from the larry car into the oven. Bi-monthly, the telescopes are inspected and lubricated, and the bottom seals are replaced. Quarterly, mid seals are replaced.

The tar sludge process has been under repair since June.

I returned on September 12, 2023 to observe stack testing and I also reviewed the following records from 2022 – 2023 YTD:

- Baffle spray electrical
- PEC BH leak detection system
- PEC BH inspection mechanical
- Shift – Baffle and baffle spray
- PEC BH lubrication mechanical
- CEMS monthly
- Baffle spray pump
- BH air compressor electrical
- Coal BH blowers
- CEMS daily inspection

Some examples of these records are attached. I did not observe any ongoing maintenance issues noted in these records. I inquired about the PECS BLD dust probe as it was specifically mentioned in several monthly inspection records and received the attached answer via email.

## **APPLICABLE RULES/PERMIT CONDITIONS EVALUATED**

### **EUCOKE-BATTERY**

**Only conditions that were evaluated are in this report. Conditions are from PTI 51-08C which was issued in November 2014.**

#### **I. EMISSION LIMITS**

**1. IN COMPLIANCE.** 437.3 pph CO 8 hr block average from the combustion stack as recorded by the CERMS. No excess emissions have been reported in the quarterly reports.

**2. IN COMPLIANCE.** 1,411 NOx tons per year limit from the combustion stack. This is an increase from the prior permitted limit of 959.5 tons per year. Based on the 12 month rolling time period from July 2022 – July 2023, 815 tons was the highest in July 2023. Based on the 12 month rolling time period from May 2021 - August 2022, the highest 12 month rolling emissions were 969 in November 2021. For the prior period evaluated from July 2020 – May 2021, highest value was 800 tons in May 2021 (attached).

**3. IN COMPLIANCE.** 563.5 NOx hourly limit from the combustion stack as recorded by the CERMS. No excess emissions have been reported in the quarterly reports.

**4. IN COMPLIANCE.** 0.75 NOx lb/MMBTU heat input for the combustion stack on a 12 month rolling average. EES has not reported any exceedances in the quarterly reports. At this time, compliance is based on EES calculation methodology of assuming a COG BTU content of 500. Highest monthly average was 0.47 in May 2023, 0.52 in September 2021; prior period highest was 0.57 in December 2020.

**5. IN COMPLIANCE.** 1.25 NOx lb/MMBTU heat input on a 24 hr rolling basis for the combustion stack. EES has not reported any exceedances in the quarterly reports. For Jan – June, 2023, 0.51 lbs/MMBTU was the highest value recorded. For May 2021 (attached), highest value recorded was 0.53 lbs/MMBTU.

**6. IN COMPLIANCE.** 2.61 NOx pph from the PECS stack. The most recent test was conducted in September 2022 and the preliminary results were 2.25 lb/hr. As this process does not run continuously, i.e. pushing only occurs once every 11 minutes, the hourly emissions are calculated based on the actual non-continuous operation. Prior test in 2020 resulted in 1.39 pph NOx (and 2018 prior result was 1.37 pph).

**7. IN COMPLIANCE.** PM limit of 0.095 lbs/1000 lbs exhaust gas on combustion stack. The most recent test was conducted in September 2021 and the results were 0.031 lbs/1000 lbs exhaust gas at 50% excess O2.

The September 2019 test result was 0.027 lbs/1000 lbs dry at 50% excess O<sub>2</sub>. The September 2017 results were 0.022 lbs PM/1000 lb gas @50% excess air. The test conducted in September 2015 and the results were 0.078 lb PM/1000 lb gas @50% excess air. The next test is scheduled for September 2023.

**8. IN COMPLIANCE.** PM limit of 0.012 gr/dscf from the combustion stack (excluding sulfates). The most recent test was conducted in September 2021 and results were .0018 gr/dscf non sulfate. The September 2019 test result for non sulfate PM was 1.62 pph and 0.001 gr/dscf. The prior test was conducted in September 2017. Results were received in November 2017. Results were 0.004 gr/dscf. The prior test was conducted in September 2015 and the results were 0.000095 gr/dscf. The next test is scheduled for September 2023.

**9. IN COMPLIANCE.** PM limit of 25.7 pph from the combustion stack. The most recent test was conducted in September 2021 and results were 2.1 pph. The September 2019 test result for non sulfate PM was 1.62 pph and 0.001 gr/dscf. Results from the prior test in September 2017 were 5.48 lb/hr. Prior test was conducted in September 2015 and the result was 0.111 pph. The next test is scheduled for September 2023.

**10. IN COMPLIANCE.** PM limit of 9.7 tons per year from the PECS stack. From July 2022 – July 2023, tons of PM was highest at 3.7 tons in July 2023. 3.9 tons of PM was highest in December 2021 for the period of May 2021 - August 2022; prior value was 2.5 tons of PM from July 2020 – May 2021. See attached.

**11. IN COMPLIANCE.** PM limit of 0.02 lb/ton of coke pushed from the PECS stack. The most recent test was conducted in September 2022 and the result was 0.008 lb/ton coke pushed. The prior test in September 2020 was 0.007 lb/ton coke pushed.

**12. IN COMPLIANCE.** PM<sub>10</sub> limit of 73.3 pph from the combustion stack. September 2021 test result was 30 pph. The September 2019 PM<sub>10</sub> and 2.5 results were both 33.1 pph. The September 2017 test result was 30.14 pph. The stack test performed in September 2015 was 50.8 pph. Next test is being performed in September 2023.

**13. IN COMPLIANCE.** PM<sub>10</sub> limit of 0.69 pph from the PECS stack. The most recent test was conducted in December 2022. This was a retest and the facility passed. The result was 0.64 pph of PM<sub>10</sub>. The prior test was performed in September 2022 and the company failed. A violation notice was issued. Facility attributed the failure to very long pauses in the test runs, notably Run 1, as they tried to test around scheduled downtime. As such, run 1 (including downtime) was much longer than normal. There is no way to know for sure if this was the reason. The prior test was conducted in September 2020 and the result was 0.33 pph. Facility used 201A and 202.

**14. IN COMPLIANCE.** PM<sub>2.5</sub> limit of 73.3 pph from the combustion stack. September 2021 test result was 30 pph. The September 2019 PM<sub>10</sub> and 2.5 results were both 33.1 pph. The September 2017 test result was 30.14 pph. The prior stack test was performed in September 2015 and the result was 50.8 pph. Next test is being performed in September 2023.

**15. IN COMPLIANCE.** PM<sub>2.5</sub> limit of 0.69 pph from the PECS stack. For the September 2022 test, the result was 0.69 pph. For the December 2022 test, the result was 0.53 pph PM<sub>2.5</sub>. Stack testers used Method 201A to size sort the particulate for PM<sub>2.5</sub> value is different than PM<sub>10</sub>.

**16. IN COMPLIANCE.** SO<sub>2</sub> limit of 2,071 tpy from the combustion stack based on a 12-month rolling time period. Based on the CERMS and the approved methodology in PTI 51-08C used to estimate emissions during downtime, for the 12-month time period from July 2022 – July 2023, the highest SO<sub>2</sub> value was 1,561 tons per year. July 2020 – May 2021 was 1,534 tons SO<sub>2</sub> per year in July 2020 (prior period from January 2019 - June 2020, highest 12 month rolling was 1,903). Some quarter(s) had downtime where emissions are estimated.

**17. IN COMPLIANCE.** SO<sub>2</sub> 3-hour average of 544.6 lbs from the combustion stack. No exceedances in 2019, 2020, 2021, and 2022 based on review of quarterly excess emission reports.

**18. IN COMPLIANCE.** SO<sub>2</sub> limit of 0.702 lb/1000 scf of COG on a 1 hr average from the combustion stack. No exceedances were reported for CY2021 and 2022 based on the quarterly reports.

**19. IN COMPLIANCE.** VOC limit of 43.1 pph from the combustion stack. The most recent test was conducted in September 2021 and results were 30.6 pph. The September 2019 VOC results were 27.8 pph. The

September 2017 test results were 12.7 pph. Testing also occurred in September 2015 and results were 19.5 pph. In October 2013, the test results were 7.99 pph VOC.

**20. IN COMPLIANCE.** VOC limit of 0.0956 lb/MMBTU limit from the combustion stack. The most recent test was conducted in September 2021 and results were 0.0589 lb/MMBTU. The September 2019 VOC results were 0.0632 lb/MMBTU heat input. The September 2017 test result was 0.0248 lb/MMBTU heat input. Stack test was performed in September 2015 and the result was 0.0391 lb/MMBTU heat input.

**21. IN COMPLIANCE.** VE limit of 20% 6-minute average on the combustion stack. No visible emissions were observed while on site. There is a COMS in the combustion stack that operates continuously. For 2018, there were 8 total exceedances on six different dates for a total of 48 minutes. For 2019, there were 19 total exceedances. For 2020, there were 3 total exceedances. For 2021, there were 14 total exceedances. For 2022, there were 14 total exceedances. As the COMS operates continuously, facility is substantively in compliance with this condition.

**22. IN COMPLIANCE.** VE limit of 15% on a 6-reading average of the PECS stack. No visible emissions exceedances have been reported in the semi annual Title V deviation reports.

**23. IN COMPLIANCE.** There shall be no visible emissions from the charging lids on EUCKE-BATTERY except that a visible emission may be emitted from no more than 1% of all charging lids. Compliance with the limit shall be determined using reference method 9B. Based on daily Method 303 observations, this limit has not been exceeded.

**24. IN COMPLIANCE.** There shall be no visible emissions from the charging of coal to EUCKE-BATTERY except that a visible emission may be emitted for a period or periods aggregating 55 seconds during any five consecutive charges. Compliance with the limit shall be determined using reference method 9B. No exceedances reported for 2021 and 2022.

**25. PENDING.** Fugitive visible emissions during the pushing and travel operations on EUCKE-BATTERY shall not exceed 20% opacity as determined instantaneously. Instantaneous readings shall not be averaged and shall be taken at 15-second intervals for the duration of the pushing and travel operations. The observer shall be positioned in accordance with the provisions of reference method 9B.

Below is a historical record of the number of exceedances reported per semi annual period.

January – June 2018: UNKNOWN

July – December 2018: 19

January – June 2019: 37

July – December 2019: 8

January – June 2020: 0

July – December 2020: 0

January – June 2021: 7

July – December 2021: 19

January – June 2022: 10

July – December 2022: 4

Facility has been cited previously for the number of exceedances in 2018, 2019, and most of 2021. 2022 exceedances are less than prior year. Awaiting Jan – June 2023 semi annual report for comparison to historical number and determination of violation notice will be determined at that time.

**26. IN COMPLIANCE.** There shall be no visible emissions from the standpipes/offtakes on EUCKE-BATTERY except that a visible emission may be emitted from no more than 4% of all standpipe assembly emission points. Compliance with the limit shall be determined using reference method 9B. Based on daily Method 303 observations, this limit has not been exceeded.

**27. IN COMPLIANCE.** The permittee shall not cause or permit to be discharged into the outer air any visible emission from the coke oven gas collector main, except when spooning the main or when the emergency relief valve opens.

**28. IN COMPLIANCE.** There shall be no visible emissions from the push side doors, the coke side doors, nor the leveling doors on EUCKE-BATTERY except that a visible emission may be emitted from no more than

5% of all doors, not including the last oven charged. The total number of doors on EUCKE-BATTERY shall be based upon two doors per oven. Compliance with the limit shall be determined using reference method 9B. Based on daily Method 303 observations, this limit has not been exceeded.

## **II. MATERIAL LIMITS**

1&2. **IN COMPLIANCE.** Dry coal charge limited to 1,420,000 tons per year on a 12 month rolling time period and 125,000 tons/month. Highest 12 month rolling coal charge from July 2022 – July 2023 was 1,299,864 tons and monthly was 114,724 tons (attached).

3. **IN COMPLIANCE.** Heavy tar sludge charged limited to 836,000 gallons per year on a 12 month rolling time period. Highest 12 month rolling from July 2022 – July 2023 was 689,997 gallons (attached).

4. **IN COMPLIANCE.** No. 2 fuel oil charged limited to 1,365,000 gallons per year on a 12 month rolling time period. Highest 12 month rolling from July 2022 – July 2023 was 910,957 gallons (attached).

5. **IN COMPLIANCE.** No. 2 fuel oil sulfur content should be no more than 0.5% by weight. Fuel records indicate facility is purchasing ULSD. ULSD is defined as having a maximum sulfur content of 15 ppm.

6. **IN COMPLIANCE.** TDS of quench water shall not exceed 800 mg/liter. 3 samples minimum collected per week. State rule 336.2033 requires 5 samples be collected. I discussed this with Brenna who stated that the facility was collecting 5 samples anyway. TDS weekly results have been below the 800 mg/liter threshold since the prior inspection.

## **III. PROCESS/OPERATIONAL**

1. **IN COMPLIANCE.** An updated MAP was submitted on February 21, 2018. MAP was approved after 90 days by default as allowed by the condition. However, AQD did review the MAP in relation to the compliance inspection, and it appears to contain the required information. The prior MAP was submitted on January 22, 2015 and approved by AQD.

2. **IN COMPLIANCE.** The volatile matter in the coke produced by EUCKE-BATTERY shall not exceed 0.94 percent by weight, based upon a daily composite sample, on a 12-month rolling basis. See attached spreadsheet.

3. **IN COMPLIANCE.** Shall not cause a standpipe lid to be open on an oven which is more than 3 ovens ahead of the one being pushed. Facility is demonstrating compliance through training of the operators. At this time, I do not have information that indicates this is not sufficient. Based on visible observations during prior inspections, I did not notice any open standpipe lids on in-service ovens that did not meet this condition. SOP exists regarding dampering off ovens (attached).

4. **IN COMPLIANCE.** Excess COG shall be sent off site when dry coal charged exceeds 1.3MM tons per 12 month rolling time period (based on an equation in the permit). For the July 2022 – July 2023 time period, dry coal charged did not exceed 1.3MM tons.

## **IV. DESIGN/EQUIPMENT PARAMETERS**

1. **IN COMPLIANCE.** At this time, based on the records that were reviewed, overpressure flares, PECS baghouse, and quench tower appear to be operated and maintained satisfactorily. The permittee shall not operate EUCKE-BATTERY unless the overpressure bleeder flares, PECS baghouse, and quench tower are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP as required in SC III.1. Records for PECS and quench tower from July 2021 – July 2023 do not indicate any on going operational/maintenance issues. No ongoing issues related to the flares have been reported.

2. **IN COMPLIANCE.** The permittee shall install, maintain, and operate, in a satisfactory manner, the EUCKE-BATTERY overpressure bleeder flares and the COG flare with automatic ignition systems. Overpressure flares and COG flare are equipped with automatic ignition systems. In the past, the overpressure bleeders have sometimes opened without igniting. However, this issue has not occurred in the last several years.

3. **IN COMPLIANCE.** The permittee shall not push coke from EUCKE-BATTERY unless the pushing emission control system (PECS) is installed, maintained, and operated in a satisfactory manner. Pushing emissions from EUCKE-BATTERY shall be captured by a belted duct collection system connected to the PECS baghouse. PECS appears to be maintained and operated at a satisfactory level based maintenance records reviewed on site on September 12, 2023. Also, routine VE readings show no opacity from the stack.

4. **IN COMPLIANCE.** The baffles in the EUCKE-BATTERY quench tower shall be kept in a good state of repair. Based on review of records for July 2022 – July 2023, baffles appear to be in good condition.

5. **IN COMPLIANCE.** The permittee shall only use acceptable makeup water in the EUCKE-BATTERY quench tower. Acceptable makeup water is defined as surface water from a river, lake, or stream; water meeting drinking water standards; storm water runoff and production area cleanup water except for water from the by-product recovery plant area; process wastewater treated to meet effluent limitations guidelines in 40 CFR 420; water from any of these sources that has been used only for non-contact cooling or in water seals; or water from scrubbers used to control pushing emissions. Waste water recycled from EUCKE-BYPRODUCT is not acceptable makeup water. Facility is not using recycled waste water.

6. **IN COMPLIANCE.** The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to monitor the pressure drop across the PECS baghouse on a continuous basis. A device to monitor pressure drop is calibrated, installed, and operated. See attached records.

#### **V. TESTING**

1. **IN COMPLIANCE.** Permittee shall test combustion stack every two years. Testing was conducted in 2021, 2019, 2017, 2015, and 2013. Next test is scheduled for September 2023.

2. **IN COMPLIANCE.** Permittee shall test PECS stack every two years. Testing was conducted in September and December 2022, September 2020, September 2018, September 2016, December 2014 and June 2012.

3. **IN COMPLIANCE.** Permittee shall sample TDS on a weekly basis with a minimum of three samples collected per week. Five samples are being collected per week.

4. **IN COMPLIANCE.** At least once each calendar month, the permittee shall sample the volatile matter content of the coke produced by EUCKE-BATTERY. The volatile matter content shall be based on an average of 3 samples for a calendar day composite. The permittee must submit any request for a change in the sampling frequency and methods to the AQD District Supervisor for review and approval. Facility collects 6 samples per day according to Ms. Harris. Average daily values are in the attached spreadsheet. No changes to frequency have been requested.

#### **VI. MONITORING/RECORDKEEPING**

2. **IN COMPLIANCE.** COMS shall be installed and maintained. COMS is installed; annual audit is performed and provided to AQD. Also, quarterly excess emission reports are required and have been submitted by EES in a timely manner.

3. **IN COMPLIANCE.** CERMS shall be maintained and operated in a satisfactory manner. This system was the subject of an enforcement action which resulted in Consent Order AQD No 57-2014 in 2014. Through this order, various improvements were made to the CERMS. In 2016, the pitot based flow monitor was replaced by an optical scintillation monitor (OSI). While downtime had been an issue in the past with the flow monitor, facility has not been cited for excess downtime since 2018.

2018 – No excess downtime

2019 – No excess downtime

2020 – No excess downtime

2021 – No excess downtime

2022 - No excess downtime

4. **IN COMPLIANCE.** Flow monitoring system shall be maintained and operating in a satisfactory manner. This system was the subject of an enforcement action which resulted in Consent Order AQD No. 57-2014. Through this order, various improvements were made to the CERMS. In 2016, the pitot based flow monitor was replaced by an optical scintillation monitor (OSI). While downtime had been an issue in the past with the flow monitor, facility has not been cited for excess downtime since 2018.

2018 – No excess downtime

2019 – No excess downtime



2020 – No excess downtime  
2021 – No excess downtime  
2022 - No excess downtime

5. **IN COMPLIANCE.** Permittee shall keep continuous opacity monitor records. Records are available.

6. **IN COMPLIANCE.** Hourly and 8-hour averages of CO are being maintained in a satisfactory manner through the CERMS system.

7. **IN COMPLIANCE.** Required NOx emission records are being maintained.

8. **IN COMPLIANCE.** Required SO2 emission records are being maintained.

9. **IN COMPLIANCE.** Required SO2 emission records are being maintained.

10. **IN COMPLIANCE.** Non-certified VE's of the PECS baghouse shall occur on a weekly basis. Records were presented during the inspection.

11. **IN COMPLIANCE.** Certified VE's of the PECS baghouse shall occur on a monthly basis. Records were presented during the inspection.

12. **IN COMPLIANCE.** Daily Method 9B observations shall be conducted. It appears that sufficient information to determine compliance with Method 9B is being recorded.

13. **IN COMPLIANCE.** Pressure drop is being continuously monitored and recorded. See example records.

14. **IN COMPLIANCE.** The permittee shall conduct regular inspections of the operational condition of the PECS baghouse. These inspections shall be conducted during scheduled outages or downtimes, and as soon as practicable after observing visible emissions, but not less frequently than at least once every month. Records of each inspection, the reason for any visible emissions observed, and any corrective actions taken shall be kept on file in a format acceptable to the AQD District Supervisor.

AQD reviewed the inspection reports from July 2021- July 2023. Leak detection system was inspected as well as the PECS baghouse components and FU work order numbers are noted on the inspection sheets. PECS baghouse does not appear to have ongoing, unresolved issues and appears to be operated and maintained properly.

15. **IN COMPLIANCE.** The permittee shall conduct regular inspections of the operational condition of the baffles in the quench tower. These inspections shall be conducted during scheduled outages or downtimes, and as soon as practicable after observing visible emissions or fallout, but not less frequently than at least once every month. Records of each inspection, the reason for any visible emissions or fallout observed, and any corrective actions taken shall be kept on file in a format acceptable to the AQD District Supervisor. Monthly inspection records for July 2021 through July 2023 were presented and reviewed by AQD on site. No ongoing issues were noted in the inspection records.

16. **IN COMPLIANCE.** Records of monthly and 12 month rolling dry coal, heavy tar sludge, and No.2 fuel oil charged to the battery for the time period requested (July 2022 – July 2023) were provided. See attached.

17. **IN COMPLIANCE.** Records of monthly, twelve month rolling, heat input, fuel gas usage, BTU content of fuel gas, volatile matter of coke produced, and coke production rate from July 2022 – July 2023 are attached. BTU content is an assumed constant of 500 BTU/scf. See attached.

18. **IN COMPLIANCE.** Records of monthly and twelve month rolling of the amount of COG generated per ton of dry coal and amount sent to a separate stationary source and COG generated per ton of dry coal are attached. No COG was required to be sent off site from July 2022 – July 2023.

19. **IN COMPLIANCE.** Permittee shall monitor and record the amount of coke oven gas vented to the flare on a daily basis. This information is tracked and maintained by DTE. See attached example.

20. **IN COMPLIANCE.** This condition requires regular inspections of the flare and automatic ignition system. However, a more rigorous inspection program, including routine visual checks throughout the day. Also,

periodic flare calibrations (flow verification and transmitter calibrations) are performed and records were provided and are attached.

21. **IN COMPLIANCE.** Shall maintain daily records of the operation of the overpressure bleeder flare system. Records are maintained, and a log of openings is submitted to AQD semi annually as part of the ROP deviation report. Records contain time, duration, and reason for opening. See semiannual ROP deviation reports.

22. **IN COMPLIANCE.** Shall maintain record of the analysis of each shipment of No 2 fuel oil. Purchase records with notations that the material is ultra-low sulfur diesel (ULSD) from vendor.

**VII. REPORTING**

1. **IN COMPLIANCE.** Reports of bleeder openings have been received in a timely manner.
2. **IN COMPLIANCE.** 1-hr SO2 emissions quarterly reports are being received in a timely manner.

**VIII. STACK HEIGHTS/RESTRICTIONS**

1,2&3. **IN COMPLIANCE.** Stack dimensions were reviewed during PTI 51-08C and should be correct.

**EUMATERIALS**

**DESCRIPTION:** Coal transfer, crushing and screening including a battery coal bin; coke transfer and screening; and transport of coal and coke.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Coal bin vents, Mixing building baghouse

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible emissions	10% opacity	6-minute average	Coal bin vents - EUMATERIALS	SC VI.4	R 336.1301(1)(c)
2. Visible emissions	10% opacity	6-minute average	Mixing building baghouse - EUMATERIALS	SC VI.4	R 336.1301(1)(c)

**IN COMPLIANCE.** No excess visible emissions have been observed by the facility VE readers.

**II. MATERIAL LIMITS NA**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. **IN COMPLIANCE.** Submitted and accepted after the 90-day window. AQD has not requested amendments to the plan. Within 180 days of permit issuance, the permittee shall submit to the AQD District Supervisor a revised program for continuous fugitive dust control for all material handling operations. The program shall be reviewed and approved by the AQD District Supervisor. Subsequently it shall be updated as necessary, and kept at the facility. If at any time the fugitive dust control program fails to address or inadequately addresses an event that meets the characteristics of a revision or update, the permittee shall amend the fugitive dust control program within 60 days after such an event occurs. The permittee shall also amend the fugitive dust control program within 60 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the fugitive dust control program and any amendments to the fugitive dust control program to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the fugitive dust control program or amended fugitive dust control program shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.

2. **IN COMPLIANCE.** Submitted and accepted. AQD has not requested amendments to the plan. The permittee shall not operate EUMATERIALS unless a malfunction abatement plan (MAP) as described in Rule 911(2), the mixing building baghouse has been submitted within 60 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 60 days after such an event occurs. The permittee shall also amend the MAP within 60 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to

the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. **IN COMPLIANCE.** The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to continuously monitor the pressure drop across the mixing building baghouse in EUMATERIALS. Pressure drop gauge is installed and operating. Calibration records were provided and are attached.

**V. TESTING/SAMPLING NA**

**VI. MONITORING/RECORDKEEPING**

**IN COMPLIANCE. Records for Conditions 2-5 are attached.**

1. The permittee shall complete all required records and calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.

2. The permittee shall monitor and keep records, in a satisfactory manner, of the amount of chemical dust suppressant used in the coal crushing and screening, and coke screening buildings, on a monthly basis. The permittee shall keep all records on file and make them available to the Department upon request.

3. The permittee shall keep, in a satisfactory manner, monthly records of the time and duration of each chemical dust suppressant system malfunction and a description of corrective action taken. The permittee shall keep all records on file and make them available to the Department upon request.

4. The permittee shall perform and document non-certified visible emissions observations as required in Emission Limit SC I.1 and I.2 on a daily basis when EUMATERIALS is operating. If during the observation there are any visible emissions detected from an emission point, a USEPA Method 9 certified visible emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from that emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reason for any visible emissions observed and any corrective actions taken shall be kept on file and in a format acceptable to the AQD.

5. The permittee shall record, in a satisfactory manner, the daily pressure drop across the mixing building baghouse in EUMATERIALS. The permittee shall initiate appropriate maintenance activity on the baghouse if the pressure drop exceeds the normal range as specified by the manufacturer.

**VII. REPORTING NA**

**VIII. STACK/VENT RESTRICTIONS**

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)
1. SVCOAL - BH	20	48

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted: **DID NOT EVALUATE stack height.**

**X.1 IN COMPLIANCE.** Shall comply with fugitive dust plan in SIP CO 27-1993. Facility has certified compliance with dust plan quarterly. Quarterly reports are submitted which detail the fugitive dust activities that have been performed. AQD has reviewed these reports.

**FGMACT L**

1.1 **IN COMPLIANCE.** Percentage of leaks allowed at certain points on the battery. Based on daily Method 303 readings and the tabulated 30-day averages and log averages as allowed by the MACT, the battery is in compliance with these conditions (attached spreadsheet).

**1.2 IN COMPLIANCE.** No visible emissions from each flare except for periods not to exceed 5 minutes in 2 hours. Facility has started reporting all individual bleeder openings (regardless of whether the gas was ignited) that last more than 5 minutes as deviations. AQD agrees with this approach. However, as there are 8 bleeders, usually a single bleeder is not open for more than 5 minutes. Based on information provided by the facility (in the file), much work has been done to minimize the duration of scheduled maintenance which causes most of the flaring events. As such, instances of flares open more than 5 minutes in two hours have been reduced. For 2017, there were no reported deviations from this requirement. For 2018, there were 10 reported; most of the visible emissions were reportedly due to power or steam loss which is supplied by US Steel. As these events appear to be beyond the control of EES based on the information available at this time, discretion is being used in terms of issuing a violation notice. Future events will continue to be monitored and reviewed.

UPDATE for FY 2020 inspection: Based on EES semi annual reports, bleeder events exceeding this limit (more than 5 minutes of visible emissions in 2 hours) continued into 2019. Even though they were attributable to issues at the US Steel boilerhouse, due to their recurring nature, a violation notice was issued. At this point, these instances do not appear to be "sudden, infrequent, and not reasonably preventable" as the exceedances are being caused by the same issue and the facility needs to figure out a way to address these issues. Note, facility claims they are not able to have personnel observe all bleeder throughout an event to determine the presence of visible emissions. Therefore, any opening for more than 5 minutes in a two hour period is considered to be a violation. A violation notice was issued June 1, 2020. While the facility did respond and is now operating the No 2 boilerhouse due to US Steel shutting down Zug Island operation, and have reportedly made some improvements, sufficient time has not elapsed to determine if this issue is resolved. Hence, the status of not in compliance.

UPDATE for FY 2021 inspection: For January– June 2020, facility claims no exceedances of the 5 minutes of visible emissions in a 2 hour period although there were openings on 16 days. For July – December 2020, facility reported 3 openings. However, facility wants to count all openings that are more than five minutes in duration as a single deviation. AQD disagrees with this approach and based on the plain language of the MACT, each bleeder is expected to meet the limit. At least 17 exceedances occurred during July - December time period using the correct method for counting exceedances.

UPDATE for FY 2022 inspection:  
No. of times there were more than 5 minutes of visible emissions in a 2 hour period based on duration of bleeder opening based on the ROP semi annual deviation reports.  
January – June 2018: UNKNOWN  
July – December 2018: 59  
January – June 2019: 45  
July – December 2019: 9  
January – June 2020: 0  
July – December 2020: 3 reported; AQD counted at least 17  
January – June 2021: 7 (included in a violation notice)  
July – December 2021: 20 (some were included in a violation notice)  
January – June 2022: 2  
July – December 2022: 4

At this time, for CY2022, compliance was chosen as number of instances where is a bleeder is open for more than 5 minutes is trending downward from the number of instances in 2018 and 2019. AQD will continue to monitor and if there is a significant uptick, another violation may be warranted.

.....  
**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. **DID NOT EVALUATE.** A plan is in place but did not evaluate all of the components. The permittee shall implement the written emission control work practice plan which addresses all applicable plan components identified in § 63.306(b) as submitted to the EPA.

2. **IN COMPLIANCE.** Shall seal leaks in the collecting main within 4 hours. No leaks have been detected in the collecting main based on the Method 303 daily readings.

3. **IN COMPLIANCE.** An SSM plan is in place. See facility file.

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. **IN COMPLIANCE.** Electronic igniters are in place. The permittee shall operate and maintain a bypass/bleeder stack flare system complete with electronic igniters installed in accordance with the design requirements as specified in § 63.307(a)(1) and (b).

#### **V. TESTING/SAMPLING**

1. **IN COMPLIANCE.** A daily performance test shall be conducted each day, 7 days per week by certified Method 303 observer to determine compliance with each applicable visible emission limitation for coke oven doors, topside port lids, offtake systems, bypass/bleeder flares, and charging operations in this permit. Each performance test shall be conducted according to the procedures and requirements of reference Method 303 or 303A or Methods 9 and 22 where applicable. Each performance test is to be conducted by a certified observer. The certified observer shall conduct each performance test according to the requirements of 40 CFR 63, Subpart L. The procedures in § 63.309(d) shall be used to determine compliance with each applicable visible emission limitation for coke oven doors, topside port lids, offtake systems, bypass/bleeder flares, and charging operations in this permit.

Daily readings described in this condition are conducted and recorded. Records are maintained by the facility and have been presented during past inspections. An example of the readings is attached.

#### **VI. MONITORING/RECORDKEEPING**

1. **IN COMPLIANCE.** The permittee shall inspect the collecting main for leaks at least once daily according to the procedures in Method 303 as specified in § 63.308(a). The permittee shall record the time and date a leak is first observed, the time and date the leak is temporarily sealed, and the time and date of repair. Collecting main is inspected daily. No leaks have been observed.
2. **UNKNOWN.** The permittee shall maintain a record of internal reports which form the basis of every malfunction notification under § 63.310(f).
3. **IN COMPLIANCE.** Records reviewed appear to meet this requirement. The permittee shall maintain files on-site at all time of all required information in a permanent form suitable for inspection at an on-site location for at least 1 year, and thereafter will maintain such files for 5 years from the date of creation at a location so that the files are accessible within 3 working days. Such records include a copy of the work practice plan, records related to the implementation of the work practice plan, design drawings and engineering specifications for the bypass/bleeder stack flare system, and records regarding the basis of each malfunction notification.
4. **UNKNOWN.** The permittee shall maintain records required to be maintained and reports required to be filed under 40 CFR 63, Subpart L be made available to the authorized collective bargaining representative of the employees at the coke battery for inspection and copying in accordance with the provisions of § 63.311(g).

#### **VII. REPORTING**

**IN COMPLIANCE.** Based on reports received, records appear to meet the criteria below. Also, semi annual certifications are submitted.

1. Within 14 days of the notification made under § 63.310(d), or after a startup, shutdown, or malfunction, the permittee shall submit a written report to the AQD District Supervisor that:
  - a. Describes the time and circumstances of the startup, shutdown, or malfunction; and
  - b. Describes actions taken that might be considered inconsistent with the startup, shutdown, or malfunction plan.
2. The permittee shall submit semi-annual compliance certifications in accordance with § 63.311(d).
3. The permittee shall report any venting of coke oven gas through a bypass/bleeder stack that was not vented through the bypass/bleeder stack flare system to the USEPA as soon as practicable but no later than 24 hours of the event. The permittee shall submit a follow-up written report within 30 days.

#### **VIII. STACK/VENT RESTRICTIONS NA**

**EUCOKE-BYPRODUCT**

**POLLUTION CONTROL EQUIPMENT:** Nitrogen gas blanketing system

**I. EMISSION LIMITS NA**

**II. MATERIAL LIMITS NA**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

**IN COMPLIANCE.** The permittee shall not vent raw coke oven gas that has not been processed in EUCOKE-BYPRODUCT to the COG flare. Raw coke oven gas has not been vented to the COG flare for Jan 2022 - July 2023 based on semi annual deviation reports.

**V. TESTING/SAMPLING**

**1. IN COMPLIANCE.** The permittee shall monitor for benzene leaks from the by-products plant equipment using Method 21 or other methods as approved by the AQD District Supervisor. The frequency of leak testing is as follows:

- a. Monthly for pump seals
- b. Quarterly for flanges, valves and exhausters
- c. Semi-annually for blanketing systems
- d. Annually for difficult to monitor equipment
- e. The frequency of leak tests as required by 40 CFR 61, Subpart V shall prevail over the above indicated frequency if lesser.

The permittee must submit any request for a change in the sampling frequency and methods to the AQD District Supervisor for review and approval. Based on the reports submitted semi-annually, the frequency of the monitoring is being met.

**FGMACTCCCC**

**DESCRIPTION:** The provisions of Subpart CCCC apply to pushing, soaking, quenching, and battery stacks at coke oven batteries.

**Emission Units:** EUCOKE-BATTERY

**POLLUTION CONTROL EQUIPMENT:** PECS baghouse, quench tower

**I. EMISSION LIMITS**

**IN COMPLIANCE.** PM limit of 0.02 lb/ton of coke pushed from the PECS stack. The most recent test was conducted in September 2022 and result was 0.0065 lb/ton coke pushed.

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.02 lb/ton of coke pushed	Test protocol shall specify averaging time.	PECS baghouse stack EUCOKE-BATTERY	SC V.1	40 CFR 63.7290(a)(2)

**2. IN COMPLIANCE.** The permittee shall not discharge to the atmosphere any emissions from any battery stack at the coke oven battery that exhibit an opacity greater than the following emission limitations:

- a. Daily average of 15 percent opacity for a battery on a normal coking cycle.
- b. Daily average of 20 percent opacity for a battery on batterywide extended coking.

No exceedances of either of the daily averages have been reported in the quarterly excess emission reports.

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Total dissolved	Less than 1,100 mg/liter			SC V.3	40 CFR 63.7295(a)(1)(i)

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
solids (TDS) content of quenching water		Test protocol shall specify averaging time.	Quench tower - EUCKOKE-BATTERY		

**IN COMPLIANCE.** No exceedances of this limit were reported in the 2022 semi annual or annual deviation reports. This is based on sampling results.

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. **DID NOT EVALUATE.** The permittee shall comply with the work practice standards for fugitive pushing emissions as specified in § 63.7291(a).

2. The permittee shall operate at all times according to a written work practice plan for soaking. The plan must include measures and procedures to:

- a. **IN COMPLIANCE.** Train topside workers to identify soaking emissions that require corrective actions. Facility claims routine training is provided. Documentation has been provided in prior inspections.
- b. **IN COMPLIANCE.** Damper the oven off the collecting main prior to opening the standpipe cap.
- c. **UNKNOWN.** Determine the cause of soaking emissions that do not ignite automatically, including emissions that result from raw coke oven gas leaking from the collecting main through the damper, and emissions that result from incomplete coking. Need more information to determine compliance.
- d. **UNKNOWN.** If soaking emissions are caused by leaks from the collecting main, take corrective actions to eliminate the soaking emissions. Corrective actions may include, but are not limited to, reseating the damper, cleaning the flushing liquor piping, using aspiration, putting the oven back on the collecting main, or igniting the emissions. Need more information to determine compliance.
- e. **UNKNOWN.** If soaking emissions are not caused by leaks from the collecting main, notify a designated responsible party. The responsible party must determine whether the soaking emissions are due to incomplete coking. If incomplete coking is the cause of the soaking emissions, you must put the oven back on the collecting main until it is completely coked or you must ignite the emissions.
- f. As provided in § 63.6(g), you may request to use an alternative to the work practice standard. **UNKNOWN.** Need more information for c,d,e, and f.

3. The permittee shall comply with the following requirements for each quench tower at a coke oven battery:

- a. **IN COMPLIANCE.** Equip each quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky. Facility provided documentation in prior inspection and quench tower design has not changed.
- b. **IN COMPLIANCE.** Wash the baffles in each quench tower once each day that the tower is used to quench coke, except as specified as follows:
  - i. The permittee is not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30°F throughout that day (24-hour period). If the measured ambient temperature rises to 30°F or more during the day, you must resume daily washing according to the schedule in your operation and maintenance plan.
  - ii. Continuously record the ambient temperature on days that the baffles were not washed. Baffles are washed every day regardless.
- c. **IN COMPLIANCE.** Inspect each quench tower monthly for damaged or missing baffles and blockage. Records provided. See attached.
- d. **IN COMPLIANCE.** Initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable. Records provided. See attached.

4. **DID NOT EVALUATE.** The permittee shall comply with the general operation and maintenance requirements for the coke oven battery as specified in § 63.7300(b).

5. **IN COMPLIANCE.** The permittee shall maintain and operate at all times according to a written operation and maintenance plan for each capture system and control device applied to pushing emissions from the coke oven battery as specified in § 63.7300(c). Based on maintenance records of PECS system and the stack test results for the PECS baghouse.

6. **DID NOT EVALUATE.** The permittee shall implement and maintain a written start-up, shutdown, and malfunction plan as specified in § 63.7310(c).

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall install, operate, and maintain a bag leak detection system for each baghouse applied to pushing emissions according to the following requirements:

The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;

The system must provide output of relative changes in particulate matter loadings;

The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over a preset level. The alarm must be located such that it can be heard by the appropriate plant personnel;

Each system that works based on the triboelectric effect must be installed, operated, and maintained in a manner consistent with the guidance document, "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). You may install, operate, and maintain other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations;

To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the alarm delay time;

Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in your operation and maintenance plan. Do not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless a responsible official certifies, in writing, that the baghouse has been inspected and found to be in good operating condition;

Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

**IN COMPLIANCE.** Information has been requested and provided previously. Documentation has been previously provided to demonstrate that the bag leak detector meets the requirements in the MACT and the sensitivity and range have not been adjusted since the initial establishment.

#### **V. TESTING/SAMPLING**

1. **IN COMPLIANCE.** The permittee shall conduct performance tests for emissions of particulate matter from the PECS baghouse no less frequently than twice (at mid-term and renewal) during each term of an ROP.

The permittee shall comply with test requirements and follow the methods and procedures as specified:

a. Determine the concentration of particulate matter according to the following test methods in appendix A to 40 CFR 60.

i. Method 1 to select sampling port locations and the number of traverse points. Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

ii. Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.

iii. Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

iv. Method 4 to determine the moisture content of the stack gas.

v. Method 5 or 5D, as applicable, to determine the concentration of front half particulate matter in the stack gas.

b. During each particulate matter test run, sample only during periods of actual pushing when the capture system fan and control device are engaged. Collect a minimum sample volume of 30 dry standard cubic feet of gas during each test run. Three valid test runs are needed to comprise a performance test. Each run must start at the beginning of a push and finish at the end of a push (*i.e.*, sample for an integral number of pushes).

Facility tests every two years. Based on the on site observations and the test report, requirement of 1.a and 1.b have been met.



2. **IN COMPLIANCE.** The permittee shall determine compliance with the daily average opacity limit for stacks of 15 percent for a coke oven battery on a normal coking cycle or 20 percent for a coke oven battery on batterywide extended coking using the following test methods and procedures:

- a. Using the continuous opacity monitoring system (COMS) required in § 63.7330(e), measure and record the opacity of emissions from each battery stack for a 24-hour period.
- b. Reduce the monitoring data to hourly averages as specified in § 63.8(g)(2).
- c. Compute and record the 24-hour (daily) average of the COMS data.

Facility maintains COMS data in proper format and certifies quarterly that there were no exceedances of the daily opacity limits.

3. **IN COMPLIANCE.** The permittee shall sample the TDS content of the quench water using the test methods for coke oven quench towers as specified in § 63.7325. Facility is using test methods specified in the MACT to sample TDS content. See attached test results. The requirement to only dry to 103-105C as opposed to 180C is documented in the sample results.

## **VI. MONITORING/RECORDKEEPING**

1. **IN COMPLIANCE.** The permittee shall comply with the continuous compliance monitoring requirements for the PECS baghouse as specified:

- a. For each baghouse applied to pushing emissions, the permittee must install, operate, and maintain each bag leak detection system according to the requirements:
  - i. The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;
  - ii. The system must provide output of relative changes in particulate matter loadings;
  - iii. The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over a preset level. The alarm must be located such that it can be heard by the appropriate plant personnel;
  - iv. Ongoing operation and maintenance procedures in accordance with the general requirements of §§ 63.8(c)(1), (3), (4)(ii), (7), and (8);
  - v. Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d);
  - vi. Ongoing recordkeeping and reporting procedures in accordance the general requirements of §§ 63.10 (c), (e)(1), and (e)(2)(i).

Bag leak detector is installed and inspected periodically. According to the facility, there is an alarm if there is an increase.

- b. **IN COMPLIANCE.** For each baghouse applied to pushing emissions, the permittee shall conduct inspections as follows: i. **IN COMPLIANCE.** Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual; See attached example of pressure drop monitoring.

**IN COMPLIANCE.** See attached email. ii-iv.

- ii. Confirm that dust is being removed from hoppers through weekly visual inspections or equivalent means of ensuring the proper functioning of removal mechanisms;
- iii. Check the compressed air supply for pulse-jet baghouses each day;
- iv. Monitor cleaning cycles to ensure proper operation using an appropriate methodology;

### **IN COMPLIANCE v-viii**

- v. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means;
- vi. Make monthly visual checks of bag tension on reverse air baghouses to ensure that bags are not kinked (knead or bent) or laying on their sides;
- vii. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks; and
- viii. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

See monthly inspection records that are attached.

2. **IN COMPLIANCE.** The permittee shall monitor and collect data for combustion stack opacity, PECS baghouse leak detection, and the PECS (fan motor amps, RPM or static pressure) to demonstrate continuous compliance at all times the affected source is operating except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments). The permittee must monitor continuously (or collect data at all required intervals) at all times the affected source is operating.

The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels, or in fulfilling a minimum data availability requirement, if applicable. The permittee must use all the data collected during all other periods in assessing compliance. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitor to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Required data is being monitored and collected continuously.

3. **IN COMPLIANCE.** The permittee shall demonstrate continuous compliance for each by-product coke oven battery subject to the opacity limit for stacks in § 63.7296(a) by meeting the following requirements:

- Maintaining the daily average opacity at or below 15 percent for a battery on a normal coking cycle or 20 percent for a battery on battery wide extended coking;
- Operating and maintaining a COMS and collecting and reducing the COMS data according to § 63.7331(j).

Already evaluated in this section.

4. **IN COMPLIANCE.** The permittee shall demonstrate continuous compliance with the TDS limit for quenching in §63.7295(a)(1)(i) by meeting the following requirements:

- Maintaining the TDS content of the water used to quench hot coke at 1,100 mg/L or less;
- Determining the TDS content of the quench water at least weekly according to the requirements in § 63.7325(a) and recording the sample results.

Already evaluated in this section.

5. The permittee shall demonstrate continuous compliance with the work practice standards that apply to the affected source by meeting the following requirements:

- For each by-product coke oven battery with vertical flues subject to the work practice standards for fugitive pushing emissions in § 63.7291(a):
  - IN COMPLIANCE.** Observe and record the opacity of fugitive emissions for four consecutive pushes per operating day, except you may make fewer or non-consecutive observations as permitted by § 63.7291(a)(3). Maintain records of the pushing schedule for each oven and records indicating the legitimate operational reason for any change in the pushing schedule according to § 63.7291(a)(4). Records of the opacity are maintained. Pushing schedule and changes to schedule are also available upon request.
  - IN COMPLIANCE.** Observe and record the opacity of fugitive emissions from each oven in a battery at least once every 90 days. If an oven cannot be observed during a 90-day period, observe and record the opacity of the first push of that oven following the close of the 90-day period that can be read in accordance with the procedures in this SC.. Facility has not reported any deviations from the once every ninety day requirement.
  - IN COMPLIANCE.** Make all observations and calculations for opacity observations of fugitive pushing emissions in accordance with Method 9 in appendix A to 40 CFR 60 using a Method 9 certified observer unless you have an approved alternative procedure.
  - IN COMPLIANCE.** Record pushing opacity observations at 15-second intervals as required in section 2.4 of Method 9 (appendix A to 40 CFR 60). The requirement in Section 2.4 of Method 9 for a minimum of 24 observations does not apply, and the data reduction requirements in section 2.5 of Method 9 do not apply. The requirement in § 63.6(h)(5)(ii)(B) for obtaining at least 3 hours of observations (thirty 6-minute averages) to demonstrate initial compliance does not apply.
  - IN COMPLIANCE.** If fewer than six but at least four 15-second observations can be made, use the average of the total number of observations to calculate average opacity for the push. Missing one or more observations during the push (e.g., as the quench car passes behind a building) does not invalidate the observations before or after the interference for that push. However, a minimum of four 15-second readings must be made for a valid observation. Minimum number of required readings has been met.

vi. **IN COMPLIANCE.** Begin observations for a push at the first detectable movement of the coke mass. End observations of a push when the quench car enters the quench tower. For a battery without a cokeside shed, observe fugitive pushing emissions from a position at least 10 meters from the quench car that provides an unobstructed view and avoids interferences from the topside of the battery. This may require the observer to be positioned at an angle to the quench car rather than perpendicular to it. Typical interferences to avoid include emissions from open standpipes and charging. Observe the opacity of emissions above the battery top with the sky as the background where possible. Record the oven number of any push not observed because of obstructions or interferences. Based on information documented in the push/travel VE forms. Reposition after the push to observe emissions during travel if necessary.

vii. **IN COMPLIANCE.** For each oven observed that exceeds an opacity of 35 percent for any tall battery, take corrective action and/or increase the coking time in accordance with § 63.7291(a). Maintain records documenting conformance with the requirements in § 63.7291(a). Facility practice is to increase coking time or increase oven temperature if/when this happens.

b. **DID NOT EVALUATE.** For each by-product coke oven battery subject to the work practice standard for soaking in §63.7294(a), maintain records that document conformance with requirements in § 63.7294(a)(1) through (5).

c. **IN COMPLIANCE.** For each coke oven battery subject to the work practice standard for quenching in § 63.7295(b):

- i. Maintain baffles in each quench tower such that no more than 5 percent of the cross-sectional area of the tower is uncovered or open to the sky as required in § 63.7295(b)(1);
- ii. Maintain records that document conformance with the washing, inspection, and repair requirements in § 63.7295(b)(2), including records of the ambient temperature on any day that the baffles were not washed;
- iii. Maintain records of the source of makeup water to document conformance with the requirement for acceptable makeup water in § 63.7295(a)(2).

Conditions above have already been evaluated in this report except where noted. Acceptable makeup water is defined as Acceptable surface water from a river, lake, or stream; water meeting drinking water standards; storm water runoff and production area clean up water except for water from the by-product recovery plant area; process wastewater treated to meet effluent limitations guidelines in 40 CFR part 420; water from any of these sources that has been used only for non-contact cooling or in water seals; or water from scrubbers used to control pushing emissions. Water is from the Detroit River.

6. The permittee shall demonstrate continuous compliance with the operation and maintenance requirements that apply to the affected source as specified:

a. **DID NOT EVALUATE.** For each by-product coke oven battery, the permittee must demonstrate continuous compliance with the operation and maintenance requirements in § 63.7300(b) by adhering at all times to the plan requirements and recording all information needed to document conformance.

**IN COMPLIANCE.** Compliance with b, c, and d. Plans are available upon request.

b. For each coke oven battery with a capture system or control device applied to pushing emissions, you must demonstrate continuous compliance with the operation and maintenance requirements in §63.7300 (c) by meeting the requirements of paragraphs (b)(1) through (3) of this section:

- i. Making monthly inspections of capture systems according to § 63.7300(c)(1) and recording all information needed to document conformance with these requirements;
- ii. Performing preventative maintenance for each control device according to § 63.7300(c)(2) and recording all information needed to document conformance with these requirements; and
- iii. Initiating and completing corrective action for a bag leak detection system alarm according to § 63.7300(c)(3) and recording all information needed to document conformance with these requirements. This includes records of the times the bag leak detection system alarm sounds, and for each valid alarm, the time corrective action is initiated, the corrective action(s) taken, and the date on which corrective action is completed.

c. To demonstrate continuous compliance with the operation and maintenance requirements for a baghouse applied to pushing emissions from a coke oven battery in § 63.7331(a), the permittee must inspect and maintain each baghouse according to the requirements in § 63.7331(a)(1) through (8) and record all information needed to document conformance with these requirements. If increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in §63.7331(a) (6), include a copy of the required written certification by a responsible official in the next semiannual compliance report.

d. You must maintain a current copy of the operation and maintenance plans required in § 63.7300 (b) and (c) onsite and available for inspection upon request. The permittee keep the plans for the life of the affected source or until the affected source is no longer subject.

7. **IN COMPLIANCE.** The permittee must keep the records for the affected source as specified:

- a. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status submitted, according to the requirements in § 63.10(b)(2)(xiv).
- b. The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
- c. Records of performance tests, performance evaluations, and opacity observations as required in § 63.10(b)(2)(viii).
- d. For each COMS or CEMS, keep the following records as specified:
  - i. Records described in § 63.10(b)(2)(vi) through (xi).
  - ii. Monitoring data for COMS during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).
  - iii. Previous (that is, superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).
  - iv. Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- e. The permittee must keep the records in § 63.6(h)(6) for visual observations.
- f. The permittee must keep the records required in §§ 63.7333 through 63.7335 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies.

Facility maintains required information.

3. Shall comply with the following for quench towers:

- a. **IN COMPLIANCE.** Demonstration provided in the prior inspection showing uncovered cross-sectional area less than 5% and the design has not changed.
- b. **IN COMPLIANCE.** Baffles washed every 6<sup>th</sup> quench cycle and are washed every day regardless of temperature. The PLC activates the washing.
- c. **IN COMPLIANCE.** Baffles inspected monthly and monthly checks for blockage are performed as well. While some issues are indicated on the monthly inspection forms, none of them were reportedly causing an issue with the efficiency of the spray tower (i.e. small leaks in nozzles, some buildup but none blocking sprays, etc.).
- d. **IN COMPLIANCE.** No baffles needing repair were identified in the inspection records.

## **VII. REPORTING**

**1. IN COMPLIANCE.** The permittee shall report each deviation from continuous compliance with emission limitation (including operating limits), work practice standards, and the operation and maintenance requirements that apply to the affected source as specified in § 63.7336. These deviations shall be reported according to the requirements in § 63.7341. Deviations are reported semi annually.

**2. IN COMPLIANCE.** The permittee must submit all of the notifications that apply to the source as specified in § 63.7336(a) to (e) and § 63.7340(a) to (e). Notifications appear to have been submitted as required.

## **VIII. STACK/VENT RESTRICTIONS NA**

### **IX. OTHER REQUIREMENTS**

The permittee shall comply with the general compliance requirements as specified in § 63.7310(a).

### **The following conditions apply to: FGNESHAPL,V,&FF**

**IN COMPLIANCE.** Reports are submitted semiannually with the information below in conditions 1 and 3 through 9. I reviewed reports related to Condition 2 while on site for the stack test in September 2023.

### **III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall visually inspect the connections and seals on the gas blanketing system including the ductworks for evidence of visible defects such as gaps or tears by Method 21 on a semi-annual basis, and at any other time after the system is re-pressurized with blanketing gas following removal of the cover or opening of the access latch.

2. The permittee shall conduct a maintenance inspection of the control system (gas blanketing system) on an annual basis for system abnormalities. The permittee shall make a first attempt at repair within 5 days, and final repairs within 15 days of leak detection.
3. The permittee shall visually inspect the connections and seals on the light oil sump by Method 21 on a semi-annual basis, and at any other time when the cover is removed. The permittee shall make a first attempt at repair within 5 days, and final repairs within 15 days of leak detection.
4. No (zero) emissions are allowed from final coolers and final-cooler cooling towers at the coke by-product recovery plant.
5. The permittee shall visually inspect each pump in benzene service for indications of liquids dripping from the pump seal on a weekly basis. (Leak indication by Method 21 is a reading greater than or equal to 10,000 ppm or indications of liquid dripping from pump seal.) When a leak is detected, the permittee shall repair the leak within 5 days of detection, or repair any leaks as soon as practicable, but no later than 15 days after detection.
6. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by a Method 21 reading of less than 500 ppm above background. Pressure relief devices in gas/vapor service shall be returned to a condition of no detectable emissions as soon as practicable following a pressure release but no later than 5 days after such release. The permittee shall perform Method 21 monitoring on the pressure relief device in gas/vapor service within 5 days of a pressure release to confirm that it is operating with no detectable emissions.
7. The permittee shall monitor monthly each valve in benzene service to detect leaks by Method 21. If a leak is detected (reading of 10,000 ppm or greater), a first attempt at repair shall be made within 5 days, and final repairs are to be made as soon as practicable but no later than 15 days after the leak is detected. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
8. The permittee shall check pressure relief devices in liquid service and flanges and other connectors during the monthly Method 21 leak monitoring of valves. If evidence of a potential leak is found by visual, audible, olfactory or other method, Method 21 monitoring shall be performed within 5 days. If such monitoring detects a leak (instrument reading of 10,000 ppm or greater) the permittee shall make a first attempt at repair within 5 days and final repair is made as soon as practicable but not later than 15 days after detection.
9. The permittee may delay of repair for which leaks have been detected if the repair is technically infeasible without process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

#### **IV. DESIGN/EQUIPMENT PARAMETERS - DID NOT EVALUATE**

#### **V. TESTING/SAMPLING – DID NOT EVALAUTE**

#### **VI. MONITORING/RECORDKEEPING**

**IN COMPLIANCE.** 1-4 below. Reports are submitted with this information.

1. The permittee shall monitor each exhauster quarterly to detect leaks by Method 21.
2. The permittee shall record and keep in a readily accessible location information pertaining to the design of the control equipment (including schematics, design specifications, and information regarding changes in the design specifications) installed to comply with § 61.132 through § 61.134.
3. The permittee shall record and maintain the following information regarding the semi-annual monitoring of the gas blanketing system:

The date of the inspection and the name of the inspector.

A brief description of each visible defect.

The presence of any leaks including the date of attempted and actual repair and method of repair of the leak.

Brief description of system abnormalities found.

4. The permittee shall maintain records including information regarding equipment leaks, equipment identification numbers for all equipment in benzene service, a list of difficult to monitor valves, and information regarding any exemptions. Such records shall be maintained in a readily accessible location and be readily available to AQD upon request.

**DID NOT EVALUTE conditions 5-7 below**

5. The permittee shall determine the Total Annual Benzene (TAB) quantity in accordance with 40 CFR 61, Subpart FF, § 61.355(a)(1), (a)(2), (a)(6), (b), and (c).
6. The permittee shall comply with the recordkeeping requirements of § 61.356 and reporting requirements of § 61.357. The permittee shall repeat the determination of TAB quantity whenever there is a change in the process generating the waste that could cause the TAB to increase to 1 Mg/yr or more.
7. The permittee shall maintain in a readily available location for a period not less than 2 years, records regarding benzene waste streams subject to Subpart FF that include the information required by § 61.356(b).

## **VII. REPORTING**

### **IN COMPLIANCE.** Conditions 1-3 below reports are submitted.

1. The permittee shall submit semi-annual reports containing information regarding source leaks, control system abnormalities, and equipment leaks and other information as specified in § 61.138(f). The permittee shall submit the reports in January and July of each year.
2. The permittee shall submit semi-annual reports containing information regarding source leaks, control system abnormalities, and equipment leaks and other information as specified in § 61.242, § 61.245, § 61.246, and § 61.247. The permittee shall submit the reports in January and July of each year.
3. The permittee shall submit semi-annual reports containing information including the process unit identification, the number of leaks in pumps and valves for each month of the reporting period, an explanation of any delay of repairs, dates of process unit shutdowns, any changes that have occurred since the initial report, and the results of any performance tests or monitoring to determine compliance with no detectable emissions. The permittee shall submit the reports in January and July of each year.
4. **NOT APPLICABLE.** If the permittee elects to comply with the alternative standards for valves (§ 61.243-1 or 2), the permittee shall notify the AQD District Supervisor 90 days before implementing the alternative standard. Request has not been made.
5. **DID NOT EVALUATE.** The permittee will review the TAB each year and shall submit an updated TAB report whenever there is a change in the process generating the benzene waste stream that could cause the TAB to increase to 1 Mg/yr or more.

## **VIII. STACK/VENT RESTRICTIONS NA**

## **IX. OTHER REQUIREMENTS**

### **IN COMPLIANCE**

1. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR 61, Subpart L, as they apply to EUCKE-BYPRODUCT. Compliance is based solely on conditions evaluated in this report.
2. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR 61, Subpart V, as they apply to EUCKE-BYPRODUCT. Compliance is based solely on conditions evaluated in this report.
3. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR 61, Subpart FF, as they apply to EUCKE-BYPRODUCT. Compliance is based solely on conditions evaluated in this report.
4. When leak is detected at any pump, valve, pressure relief device in liquid service, flange and other connector, or exhauster, the permittee shall attach to the leaking equipment a weatherproof and readily visible identification tag with the equipment identification number. Any such identification tag on a valve shall not be removed until the valve has been monitored for 2 successive months and no leak has been detected. Any such identification tag can be removed from any other equipment after the leak has been repaired.

**APPENDIX A – Testing Requirements. IN COMPLIANCE.** Facility has been complying with the requirements in this appendix.

### **APPENDIX B - Continuous Opacity Monitoring System (COMS) Requirements**

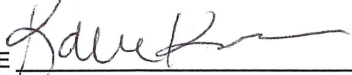
**IN COMPLIANCE.** Annual audits of the COMS have been completed in a timely manner and reports have been submitted for review. Quarterly EER's are being submitted with the required information and on time. Monitoring plan was submitted to TPU for review.

### **APPENDIX C - NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub>/O<sub>2</sub> - Continuous Emission Monitoring System and Continuous Emission Rate Monitoring System (CEMS/CERMS) Requirements**

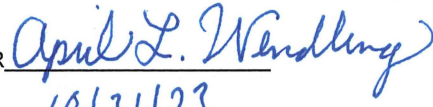
**IN COMPLIANCE with Conditions 2-7.** The CERMS monitoring plans have been submitted and reviewed by TPU. The initial plan was submitted on July 27, 2009. An updated plan was submitted on April 13, 2015 as required by the Consent Order 57-2014. Quarterly reports have been submitted and contain the required information. TPU staff has determine the CERMS to be compliant with the required performance specifications.

**COMPLIANCE DETERMINATION**

At the time of the inspection, facility appears to be in compliance with the conditions evaluated in this report.

NAME 

DATE 10/30/23

SUPERVISOR   
10/31/23