



November 28, 2022

via electronic mail

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**Re: Submittal of Coke Battery Flares Stack Test Report per EPA's June 28, 2022 Coke Ovens Section 114 Information Collection Requests (ICRs), Enclosure 2
EES Coke Battery, L.L.C., River Rouge, Michigan**

Dear Mr. French and Dr. Jones:

On June 29, 2022, DTE Vantage (DTE) received a Section 114 of the Clean Air Act Information Collection Request (ICR) in relation to development of Risk and Technology Review of Coke Oven Facilities related to 40 CFR Part 63, Subpart CCCCC, Pushing Quenching and Battery Stacks. The ICR also included risk and technology review, testing, interior and fenceline monitoring, and other information collection activities related to potential new regulations for coke byproduct recovery plants (CBRP) in relation to 40 CFR Part 63, Subpart L, Coke Oven Batteries. DTE owns and operates EES Coke Battery, L.L.C. (EES Coke) located in River Rouge, MI.

EES Coke was selected for Flares and Fugitives under the Enclosure 2 scope and Flares fall under the stack testing portion of the scope. The enclosed Source Test Report and the attached excel file (EPA Enclosure 2) provides the results of the stack testing for the coke byproduct recovery plant.

As stated in the September 1, 2022 EPA response letter from Penny Lassiter to David Ailor and the enclosure attached to the letter:

1. "Flare testing does not need to be done for CBRP unless there is a sample port." - *EES Coke does not have sample ports on the BP Flare (CBRP Flare) or any of the eight Emergency Bypass Bleeder Flares (Emergency Battery Flares) so, efforts to measure flow rates of the flare stacks through use of Methods 1, 2 and 4 are not required.*
2. EPA "...will accept COG composition analysis in lieu of coke by-product recovery plant (CBRP) flare testing samples taken at other points in the CBRP..." process. – *EES Coke does not have existing sample ports for COG at the inlets of the BP Flare or any of the eight Emergency Bypass Bleeder Flares. EES Coke is providing COG analysis at a location previously communicated in the August 3, 2022 letter regarding stack testing issues. A COG sample was obtained on October 3, 2022, which coincided with two of the three BP Flare Visible Emissions (VE) observations.*

3. EPA is "...allowing use of Method TO-15 instead of Method TO-15A." - EES Coke obtained a sample of the COG on October 3, 2022 and had it analyzed using method TO-15.

Sidock Group, Inc (Sidock) completed three separate two-hour Method 22 VE observations on the BP Flare on October 3 and 4, 2022.

As previously mentioned in the August 3, 2022 letter detailing stack testing problems, intentionally activating the emergency bypass bleeder flares has many serious issues relating to worker safety, asset and operational management as well as the neighboring community. EES Coke also has an understanding with EGLE regarding completing 2-hour Method 9 VE observations on activated emergency bypass bleeder flares. EES Coke submitted four Method 9 readings included in the Enclosure 1 submission sent September 27, 2022.

As previously communicated, EES Coke agreed to complete Method 22 VE observations on the emergency bypass bleeder flares if an activation were to occur between Monday through Friday when Sidock inspectors are onsite, excluding holidays and during daylight hours. Additionally, the VE observations would only occur if Sidock could complete the readings safely. EES Coke agreed to deploy Sidock inspectors if the duration of bleeder events lasts at least 30 minutes (and if the inspectors were not in the middle of a mandatory Method 303 activity.) During the Enclosure 2 testing timeframe (September 23, 2022 through November 16, 2022), there were no emergency bypass bleeder flares that met these criteria, therefore no Method 22 observations were able to be performed. Note that the November 16, 2022 cut-off date was designed to provide the standard two-week report writing, review and finalization period as required by EES Coke policies for a final report to be submitted to EPA OAQPS on the November 30, 2022 deadline.

Please contact me at brenna.harden@dteenergy.com or 734.320.5255 should you have any further questions.

Sincerely,



Brenna Harden
Senior Environmental Engineer
EES Coke Battery, L.L.C.

Cc: F. Mourad, DTE Energy
R. Sanch, DTE Vantage
M. Krchmar, EES Coke
L. Harris, EES Coke
K. Koster, EGLE-AQD
G. Angelotti, EGLE-AQD

Enclosures: Sidock Source Test Report
EPA Enclosure 2 Test Results (ANSWER-FUGITIVE-Coke Enc2_Test Results_EES Coke AAC Lab Results
Added 2022-11-28.xls)
EPA Enclosure 9 Certification Statement

Source Test Report

EES Coke Battery, LLC
1400 Zug Island Road
Detroit, Michigan

Source Tested:
COKE BYPRODUCT RECOVERY PLANT (CBRP) BATTERY FLARES STACKS

November 28, 2022

Prepared by:
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Sidock Group, Inc.

ENGINEERS • ARCHITECTS • CONSULTANTS • PROJECT MANAGERS

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1.0 DESCRIPTION OF PROJECT

DTE Vantage (DTE) owns and operates EES Coke Battery, L.L.C. (EES Coke) located in River Rouge, MI. EES Coke operates an 85-oven, 6-meter Coke Byproduct Recovery Plant (CBRP) battery.

On June 29, 2022, DTE received a Section 114 of the Clean Air Act Information Collection Request (ICR) in relation to development of Risk and Technology Review of Coke Oven Facilities related to 40 CFR Part 63, Subpart CCCCC, Pushing Quenching and Battery Stacks. The ICR also included risk and technology review, testing, interior and fenceline monitoring, and other information collection activities related to potential new regulations for CBRP in relation to 40 CFR Part 63, Subpart L, Coke Oven Batteries.

This Source Test Report pertains to EPA's request for Method 22 observations of the Coke Byproduct Recovery Plants (CBRP), specifically BP Flare stack and any of the eight emergency bypass bleeder flares stacks.

The objectives of the project are: to obtain an accurate measurement of the seconds of visible emissions from the BP flare stack; any of the eight emergency bypass bleeder flares stacks; collect and analyze a sample of coke oven gas; collect process data; and operate as close to normal operation as possible.

2.0 TABLES SUMMARIZING FIELD OBSERVATIONS AND PROCESS DATA

EES Coke BP Flare – Method 22 Data and Stack Gas Flowrate

Date	Start time	Stop time	Observation duration (minutes)	Visible emissions duration (seconds)	Stack gas flowrate (thousand cfm)
10/03/2022	8:00 am	10:25 am	120	0	12.9
10/03/2022	10:30 am	12:55 pm	120	0	12.3
10/04/2022	8:00 am	10:25 am	120	0	12.8

EES Coke BP Flare - Process Data During Method 22 Observations

Parameter	10/3/2022		10/4/2022
CBRP Flare / Run	1 (8:00 – 10:25)	2 (10:30 – 12:55)	3 (8:00 – 10:25)
No. of ovens charged (ovens/hr)	3.7	4.6	4.1
No. of ovens pushed (ovens/hr)	4.1	4.6	4.1
Coal charged (dry tons/hr)	119.7	147.8	133.4
Coke produced (tons/hr)	106.4	106.4	107.0

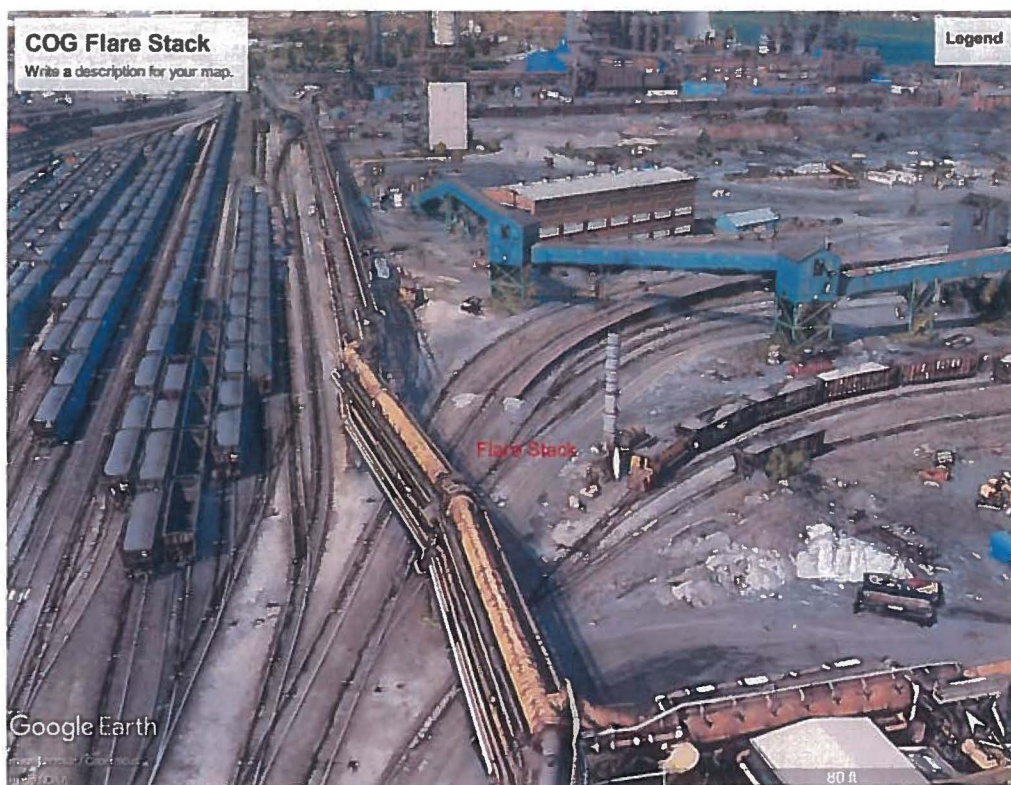
As previously communicated, EES Coke agreed to complete Method 22 VE observations on the emergency bypass bleeder flares if an activation were to occur between Monday through Friday when Sidock inspectors are onsite, excluding holidays and during daylight hours. Additionally, the VE observations would only occur if Sidock could complete the readings safely. EES Coke agreed to deploy Sidock inspectors if the duration of bleeder events lasts at least 30 minutes (and if the inspectors were not in the middle of a mandatory Method 303 activity.) During the Enclosure 2 testing timeframe (September 23, 2022 through November 16, 2022), there were no emergency bypass bleeder flares that met these criteria, therefore no Method 22 observations were able to be performed.

3.0 DISCUSSION OF FIELD OBSERVATIONS

Three sets of field observations of the Coke Battery Flare stack were conducted over a two-day period, 10/03/2022 and 10/04/2022. Each set included two hours of observations, following EPA Method 22, which requires the observer to take at least a 5-minute rest break after each 20-minute observation. Therefore, each set involved six 20-minute observations with five 5-minute rest breaks to complete the 2-hour test. During the tests, stack gas flowrates were within the range of normal operations. Production rates were also within the range of normal operations and within the air permit. There were no deviations or modifications to the test plan in order to conduct this work. All work was performed in conformance with the QAPP and the test plan without any deviations.

Method 22 specifies that observers are knowledgeable with respect to the general procedures for determining the presence of visible emissions. While it is not required, the observer who performed Method 22 is certified according to the procedures of Method 9. This certification includes semi-annual completion of the Method 9 field test.

Observations were completed from a location that was approximately 490 ft from the BP Flare stack. A Method 22 form was utilized to collect all required data.



Google Earth Picture of the BP Flare Stack



Observations were completed from a location that was approximately 490 ft from the BP Flare stack.

4.0 TRENDS OBSERVED

During each observation there were no time periods when emissions were visible. This is to be expected with a smokeless candlestick type flare.

Regarding process operations, the production rate and flare gas flowrates were within normal range. The BTU content was also within historical ranges as presented by EES Coke.

Gas analysis is available in the attached "EPA Enclosure 2" spreadsheet and results were within historical ranges as presented by EES Coke.

5.0 EVALUATION OF DATA IN MEETING PROJECTS OBJECTIVES

The data met the project objectives by including three 2-hour Method 22 observations for the BP flare stack under normal operating conditions. Process data and coke oven gas analyses were obtained and the Quality Control objectives were also met.

Certification Statement

The individual responsible for directing or supervising the preparation of the questionnaire must read and sign the Certification Statement listed below. The certifying official must be a responsible corporate official or his/her authorized representative.

I certify under penalty of law that the attached questionnaire was prepared under my direction or supervision and that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, accurate and complete. In those cases where we did not possess the requested information for questions applicable to our facility, we provided best estimates. We have to the best of our ability indicated what we believe to be company confidential business information as defined under 40 CFR Part 2, Subpart B. We understand that we may be required at a later time to justify our claim in detail with respect to each item claimed confidential. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment as explained in Section 113 of the Clean Air Act (42 USC §7413).



Signature of Certifying Official



Date

M. Krchmar

Printed Name of Certifying Official

313.216.2535

Telephone Number

Plant Manager

Title of Certifying Official