Air Quality Division Detroit Office

# EES Coke Battery, LLC

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December 4, 2015

Katie Koster Senior Environmental Engineer MDEQ - Air Quality Division Cadillac Place 3058 West Grand Boulevard, Suite 2-300 Detroit, MI 48202-6058

RE: Response to October 29, 2015 Violation Notice

Dear Ms. Koster:

EES Coke Battery, LLC (EES Coke) is in receipt of a Violation Notice (VN) issued by the Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD). The VN, dated October 29, 2015 alleges that EES Coke improperly vented coke oven emissions (i.e., without flaring control) and exceeded the allowed visible emission standard for coke oven emissions when flared. In addition, the VN alleges that EES Coke failed to timely perform maintenance on the Pushing Emission Control System.

### Bypass Bleeder Flaring

Bypass bleeder flaring occurs when an overpressure occurs in the coke oven gas collecting main. The bypass is a series of pressure relief valves that open to prevent a potentially catastrophic buildup of pressure in the main. Traditionally, the pressure relief valves at coke batteries vented through exhaust stacks to vent the raw coke oven gas to the atmosphere. Battery No. 5 was built with the bleeder valves venting to flares meeting the requirements of 40 CFR 63, Subpart L. The bleeder flares are equipped with electronic auto-igniters to ensure the raw coke oven gas is controlled by combustion.

The majority of bypass bleed events are the result of equipment maintenance which can be scheduled to minimize the number and/or duration of bypass bleed events. Bypass bleeder events infrequently occur during loss of power, steam or equipment malfunctions and cannot be predicted or prevented.

The most common equipment maintenance performed by EES Coke that results in bypass bleed events is performed on the primary cooler to remove the buildup of materials plugging the cooler. If the buildup of materials is not removed, the result would be more frequent and unpredictable bypass bleeder flare events that put EES workers, the general environment,

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community and asset at greater risk. EES Coke is reviewing procedures to identify opportunities to reduce the frequency and/or duration of maintenance needed on the primary cooler and associated bypass bleed events.

During its investigation of bypass bleed events which failed to ignite, EES Coke found defects in several of the components that control the auto ignition system for the bypass bleeder flares and are in the process of repairing, if not already completed. In addition, EES Coke is evaluating the installation of continuously lit pilot lights to replace the electronic auto ignition system or replacing the existing auto igniters with newer equipment.

To reduce the likelihood that the auto ignition system fails to activate, EES Coke has changed its inspection and preventive maintenance frequency on the system to daily. This inspection involves manually testing the electronic igniters (without opening bleeder gas flow) to listen for the igniters attempting to ignite.

EES feels that with each event identified within the VN, each failure was a different root equipment failure that was corrected and procedures were modified accordingly. EES took these malfunctions seriously and increased inspections of the auto ignition systems of the bleeders to daily. EES has not suffered from an auto ignition system failure of the bleeders due to equipment since August 8, 2015. Bleeder event followup reports identified in the VN have been previously submitted to the agency.

### Pushing Emission Control System (PECS) Maintenance

EES Coke operates under an Operating and Maintenance program that requires identified deficiencies in the PECS be repaired within 30 days of discovery. As identified in the VN, our Maintenance Department's records indicate that repairs of several pinholes in the elbow of the PECS capture system were not corrected within the 30 day limit. These repairs have since been made. In addition, EES Coke plant management has reaffirmed to the Maintenance Department that PECS repairs must be completed and documented within 30 days of being identified.

### Summary

EES Coke has instituted efforts to reduce the number and/or duration of bypass bleed events by improving its maintenance procedures. In addition, EES Coke has instituted procedures to routinely verify the proper operation of the auto ignition system on the bypass bleeder flares. Further, EES Coke has renewed its commitment to, and emphasized to its personnel the importance of, compliance with the repair schedule for identified PECS deficiencies. Altogether, these measures are expected to reduce the likelihood that the events resulting in the alleged violations will reoccur. EES has the ultimate goal for elimination of these events in the future.

## EES Coke Battery, LLC

If you have any questions, please feel free to call me at 313.216.2535.

Sincerely,

Mike Krchmar Plant Manager

cc: Katie Koster, MDEQ-AQD

Brenna Harden, DTEES

Mina McLemore, MDEQ-AQD

Fadi Mourad, DTEES Todd Richards, DTEES Steve Zervas, DTEES