



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

**JUN 29 2007**

REPLY TO THE ATTENTION OF:  
(AE-17J)

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Yogendra Kumar, Environmental Manager  
EES Coke Battery, LLC  
P.O. Box 18309  
River Rouge, Michigan 48218

Dear Mr. Kumar:

This is to advise you that the United States Environmental Protection Agency (U.S. EPA) has determined that EES Coke Battery, LLC (EES Coke or you) at 1400 Zug Island, River Rouge, Michigan, is in violation of the Clean Air Act (CAA); its Title V operating permit at 40 C.F.R. Part 70; Prevention of Significant Deterioration (PSD) regulations at 40 C.F.R. § 52.21; Equipment Leaks at 40 C.F.R. 61 Subpart V, the National Emission Standard for Benzene Waste Operations, and the Michigan State Implementation Plan (SIP) requirements, as provided below. We are today issuing to you a Notice of Violation (NOV) and Finding of Violation (FOV).

The CAA requires the development of Primary and Secondary National Ambient Air Quality Standards to protect public health and welfare. To attain and maintain these standards, each State is required to develop an implementation plan. In addition, U.S. EPA promulgated the PSD regulations at 40 C.F.R. § 52.21 pursuant to Part C, Subpart I of the CAA. 43 Fed. Reg. 26403 (June 19, 1978). EES Coke has violated the following requirements of its Title V operating permit, including applicable incorporated Michigan SIP, Benzene Waste Operations, Equipment Leaks, and PSD requirements:

1. There shall be no visible emissions from the charging of coal to the No. 5 coke battery except that a visible emission may be emitted for a period aggregating 55 seconds during any five consecutive charges.
2. There shall be no visible emissions from the push side doors, the coke side doors, nor the leveling doors on the No. 5 coke battery except that a visible emission may be emitted from no more than five percent (5%) of all doors, not including the last oven charged. The total number of doors on the No. 5 coke battery shall be based upon two doors per oven.
3. The fugitive visible emissions limit during pushing and travel operations on the No. 5 coke battery shall be twenty percent (20%) 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.

4. There shall be a cap, blind flange, plug, or a second valve to seal an open-ended line.
5. There shall be monitoring performed for all valves that are part of the by-products plant.
6. There shall be an identification of all valves, such that applicable valves may be readily identified from other equipment.
7. There are acceptable testing methods that must be used in determining the annual average benzene wastewater concentration for points of generation that contribute to the total annual benzene number.
8. Any benzene wastewater emissions generated from a point of generation to an individual drain system must vent to a closed vent system.

U.S. EPA considers compliance with the above limits as compliance with installation permit numbers C-6426 and C7070, the Michigan SIP R336.1201(3), Benzene Waste Operations, Equipment Leaks, and EES Coke's Title V operating permit requirements. The purpose of these limits is to help protect the public from unhealthy exposure to particulate matter and benzene. Particulate matter emissions contribute to respiratory problems, lung damage, and premature death. Benzene is a human carcinogen.

Part C of Title I of the CAA and the PSD regulations implementing Part C, at 40 C.F.R. § 52.21, prohibit a major stationary source from constructing or modifying an emission unit without first obtaining a PSD permit, if the modification is major such that it will result in a significant net increase in emissions of a regulated pollutant, and if the source is located in an area which is in attainment of the National Ambient Air Quality Standards (NAAQS) for that pollutant. Part C and its implementing regulations further require that a source subject to PSD regulations install Best Available Control Technology (BACT).

U.S. EPA finds that EES Coke has violated the PSD regulations for sulfur dioxide by incorporating high sulfur petroleum coke with the coal blend charged to its No. 5 Coke Oven Battery. Violation of the SO<sub>2</sub> standards increases public exposure to unhealthy levels of SO<sub>2</sub>. Long term exposure to high levels of SO<sub>2</sub> gas and particles can cause respiratory illness and aggravate existing heart disease. SO<sub>2</sub> reacts with other chemicals in the air to form tiny sulfate particles, which, when breathed, gather in the lungs and contribute to increased respiratory symptoms and disease, difficulty in breathing, and premature death.

Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action. The option we select, in part, depends on the efforts taken by EES Coke to correct the alleged violations and the

timeframe in which you can demonstrate and maintain continuous compliance with the requirements cited in the NOV/FOV.

Before we decide which enforcement option is appropriate, we are offering you the opportunity to request a conference with us about the violations alleged in the NOV/FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The U.S. EPA contacts in this matter are Reza Bagherian, Daniel Schaufelberger, and Constantinos Loukeris. If you wish to request a conference, you may call them at (312) 886-0674, (312) 886-6814, and (312) 353-6198, respectively. U.S. EPA hopes that this NOV/FOV will encourage EES Coke's compliance with the requirements of the Clean Air Act.

Sincerely yours,

 *ACTING*  
Stephen Rothblatt, Director  
Air and Radiation Division

Enclosure

cc: Tom Hess, Enforcement Unit Supervisor  
Michigan Department of Environmental Quality  
Air Quality Division  
525 West Allegan  
P.O. Box 30260  
Lansing, Michigan 48909-7760

Teresa Seidel, District Supervisor  
SE Michigan District Office  
27700 Donald Court  
Warren, Michigan 48902-2793

**United States Environmental Protection Agency  
Region 5**

IN THE MATTER OF:	
EES Coke Battery, LLC River Rouge, MI	NOTICE OF VIOLATION AND FINDING OF VIOLATION
Proceedings Pursuant to the Clean Air Act, 42 U.S.C. §§ 7401 <u>et seq.</u>	EPA-5-07-MI-8

**NOTICE AND FINDING OF VIOLATIONS**

EES Coke Battery, LLC (EES Coke) owns and operates a by-product coke oven battery at 1400 Zug Island Road, River Rouge, Michigan (the Facility).

U.S. EPA is sending this Notice of Violation (NOV) and Finding of Violation (FOV) to EES Coke pursuant to Section 113(a)(1) and (3) of the Clean Air Act (the Act), 42 U.S.C. § 7413(a)(1) and (3). U.S. EPA finds that EES Coke is in violation of the Clean Air Act (CAA); its Title V operating permit at 40 C.F.R. Part 70; Prevention of Significant Deterioration (PSD) regulations at 40 C.F.R. § 52.21; and the Michigan State Implementation Plan (SIP) requirements at the River Rouge, Michigan facility.

You may request a conference with us to discuss the violations alleged in the NOV/FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your Facility's technical and management personnel to take part in these discussions. You may have an attorney accompany and represent you at this conference.

**Explanation of Violations**

1. The regulatory authority and facility requirements relevant to this NOV/FOV are as follows:
  - a. Title V of the Clean Air Act (CAA), 42 U.S.C. §§ 7661a-7661f, establishes an operating permit program for certain sources, including "major sources." Pursuant to Section 502(b) of the CAA, 42 U.S.C. § 7661a(b), on July 21, 1992, U.S. EPA promulgated regulations establishing the minimum elements of a permit program to be administered by any air pollution control agency. 57 Fed. Reg. 32295 (July 21, 1992). These regulations are codified at 40 C.F.R. Part 70.

- b. 40 C.F.R. § 70.2 defines “major source,” in part, as any stationary source belonging to a single major industrial grouping and that directly emits or has the potential to emit 100 tons per year (tpy) of any air pollutant, as defined under section 302 of the CAA.
- c. 40 C.F.R. § 70.7(b) states that no source subject to Title V may operate the source except in compliance with a Title V permit.
- d. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), states that after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate the source except in compliance with its Title V permit.
- e. Section 165(a)(1) of the CAA, 42 U.S.C. § 7475(a)(1), states that a facility shall comply with emissions limitations within permits issued under, and conforming with, the requirements of Part C, 42 U.S.C. § 7470, *et.seq.*
- f. U.S. EPA granted full approval to the Michigan Title V operating permit program on December 4, 2001. *See* 66 Fed. Reg. 62949 (December 4, 2001). The program became effective on November 30, 2001.
- g. The Michigan Department of Environmental Quality (MDEQ) issued Renewable Operating Permit (Title V operating permit) No. 199600132c for the Facility to the United States Steel Corporation, Great Lakes Works with an effective date of March 1, 2005.
- h. Table E-07.01(V)(1) of EES Coke’s Title V operating permit states that there shall be no visible emissions from the charging of coal to the No. 5 coke battery except that a visible emission may be emitted for a period aggregating 55 seconds during any five consecutive charges. *See* R336.1201(3) of the Michigan SIP.
- i. Table E-07.01(V)(2) of EES Coke’s Title V operating permit states that there shall be no visible emissions from the push side doors, the coke side doors, nor the leaving doors on the No. 5 coke battery except that a visible emission may be emitted from no more than five percent (5%) of all doors, not including the last oven charged. The total number of doors on the No. 5 coke battery shall be based upon two doors per oven. *See* R336.1201(3) of the Michigan SIP.
- j. Table E-07.01(II)(10) of EES Coke’s Title V operating permit states that the fugitive visible emissions limit during pushing and travel operations on the No. 5 coke battery shall be twenty percent (20%) 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. *See* R336.1201(3) of the Michigan SIP.

- k. On June 11, 1992, U.S. EPA approved R336.1201 as part of the federally enforceable Michigan SIP.
- l. R336.1201(1) of the Michigan SIP states that a person shall not install, construct, reconstruct, relocate, or alter any process, fuel-burning, or refuse-burning equipment, or control equipment pertaining thereto, which may be a source of air contaminants, until a permit is issued by the Commission. This shall be known as a permit to install and shall cover construction, reconstruction, relocation, and alteration of equipment where such is involved. A person planning to install, construct, reconstruct, relocate, or alter any such equipment shall apply to the Commission for a permit to install and shall provide the information required in Rule 203.
- m. 40 C.F.R. § 52.21(j) states that a major stationary source or major modification shall meet each applicable emissions limitation under the SIP and each applicable emissions standard and standard of performance under 40 C.F.R. Parts 60 and 61.
- n. 40 C.F.R. § 52.23 states that, among other things, failure to comply with any provision of this part, any approved regulatory provision of a SIP, or with any permit limitation or condition contained within an operating permit issued under an U.S. EPA-approved program that is incorporated into the SIP, shall render the person or governmental entity so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement action under Section 113 of the CAA.
- o. Section 113(a)(1-3) of the CAA, 42 U.S.C. § 7413(a)(1-3), authorizes the Administrator to initiate an enforcement action whenever, on the basis of any available information, the Administrator finds that any person has violated or is in violation of a requirement or prohibition of, among others, any implementation plan or permit, Title I or Title V of the CAA, or any rule promulgated, issued, or approved under Title I or Title V of the CAA.
- p. On September 21, 1990, Wayne County Department of Health's Pollution Control Division approved the PSD permit numbers C-6426 and C-7070 for the rebuild of the No. 5 coke oven battery for National Steel Corporation – Great Lakes Division, the owner at the time of the coke oven battery at the Facility .
- q. Condition 16 of the installation permit numbers C-6426 and C-7070 states that there shall be no visible emissions from the charging of coal to the No. 5 coke battery except that a visible emission may be emitted for a period or periods aggregating 55 seconds during any five consecutive charges.
- r. Condition 17 of the installation permit numbers C-6426 and C-7070 states that there shall be no visible emissions from the push side doors, the coke side doors, nor the leveling doors on the No. 5 coke battery except that a visible emission

may be emitted from no more than five percent of all doors, not including the last oven charged. The total number of doors on the No. 5 coke battery shall be based upon two doors per oven.

2. EES Coke operates the No. 5 coke oven battery at the coke oven plant located at 1400 Zug Island Road in River Rouge, Michigan.
3. EES Coke assumed operations of the No. 5 coke oven battery at the River Rouge, Michigan facility in October 2004.
4. The No. 5 coke oven battery at the EES Coke facility was constructed in 1970 and modified in 1992.
5. EES Coke is required to operate the No. 5 coke oven battery pursuant to the requirements of Title V operating permit No. 199600132c.
6. U.S. EPA inspected the EES Coke facility in River Rouge, Michigan on October 16-20, 2006.
7. On October 19, 2006, U.S. EPA conducted visible emissions observation in accordance with the provisions of reference test Method 9B during the pushing and traveling operations on the No. 5 coke battery. At 9:39 A.M. on October 19, 2006, U.S. EPA observed one reading of 45% visible emissions during the travel operations on the No. 5 coke battery.
8. EES Coke submits monthly Method 303 reports to U.S. EPA as required by 40 C.F.R. Part 63, Subpart L.
9. On March 22, 2006, EES Coke submitted to U.S. EPA its report for the month of February 2006. EES Coke reported that on February 8, 2006 visible emissions from the push side doors and the coke side doors on the No. 5 coke battery was at 5.42%.
10. On May 8, 2006, EES Coke submitted to U.S. EPA its report for the month of April 2006. EES Coke reported that on April 5, 2006 the sum of visible emissions from 5 consecutive charges of coal to the No. 5 coke battery was 56.5 seconds.
11. On June 22, 2006, EES Coke submitted to U.S. EPA its report for the month of May 2006. EES Coke reported that on May 14, 2006 the sum of visible emissions from 5 consecutive charges of coal to the No. 5 coke battery was 61.0 seconds.
12. On July 12, 2006, EES Coke submitted to U.S. EPA its report for the month of June 2006. EES Coke reported that on June 24, 2006 the sum of visible emissions from 5 consecutive charges of coal to the No. 5 coke battery was 71.0 seconds.

13. Based on U.S. EPA's observation of visible emissions during the pushing operations on the No. 5 coke battery, EES Coke had the following exceedance of the emissions limit at its facility:

Date	Time	Instantaneous Visible Emission
October 19, 2006	9:39	45%

This exceedance is a violation of visible emissions limits of EES Coke's Title V operating permit, including the applicable incorporated limits from installation permit numbers C-6426 and C-707, as well as R336.1201(3) of the Michigan SIP.

14. Based on EES Coke's observation of visible emissions from 5 consecutive charges of coal to the No. 5 coke battery, EES Coke had the following exceedances of emissions limit at its facility:

Date	Sum of Charges (Seconds)	Number of Charges
April 5, 2006	56.5	5
May 14, 2006	61.0	5
June 24, 2006	71.0	5

This exceedance is a violation of visible emissions limits of EES Coke's Title V operating permit, including the applicable incorporated limits from installation permit numbers C-6426 and C-707, as well as R336.1201(3) of the Michigan SIP.

15. Based on EES Coke's observation of visible emissions from the push side doors and the coke side doors on the No. 5 coke battery, EES Coke had the following exceedance of emissions limit at its facility:

Date	Percent Doors Leak
February 8, 2006	5.42

This exceedance is a violation of visible emissions limits of EES Coke's Title V operating permit, including the applicable incorporated limits from installation permit numbers C-6426 and C-707, as well as R336.1201(3) of the Michigan SIP.

16. EES Coke's failure to maintain continuous compliance with the visible emissions limits of its Title V permit is a violation of its Title V permit, Sections 502(a) and 165(a)(1) of the CAA, 40 C.F.R. § 70.7(b), and R336.1201 of the Michigan SIP, 40 C.F.R. § 52.21(j).

17. The following Equipment Leak requirements are relevant to this NOV/FOV:



- i. The Equipment Leaks provision at 40 C.F.R. § 61.242-6(a)(1) states that each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 61.242-1(c).
  - ii. The Equipment Leaks provision at 40 C.F.R. § 61.242-1(d), states that each piece of equipment to which this subpart applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.
  - iii. The Equipment Leaks provision at 40 C.F.R. § 61.242-7(a) states that each valve shall be monitored monthly to detect leaks by the method specified in § 61.245(b) and shall comply with paragraphs (b)-(e) of Section 61.242-7, except as provided in paragraphs (f), (g), and (h) of Section 61.242-7, section 61.243-1 or Section 61.243-2, and Section 61.242-1(c).
18. During the October 17, 2006 inspection, U.S. EPA performed Leak Detection and Repair (LDAR) at the byproducts plant which identified the following LDAR violations:
  - i. EES Coke failed to cap, blind flange, plug or a place a second valve on the following open-ended lines:
    - a. 31003 VA22
    - b. 31003 VA (below F6)
    - c. 31012 V9
    - d. 41011 V17/V18
    - e. 41062 V6
    - f. 41062 V1
    - g. 41028A V6
    - h. 35027 V16
    - i. 41029 V19
    - j. 41029 V21
  - ii. EES Coke failed to monitor the following valves due to the misidentification of these components as connectors:
    - k. 35046 FC5
    - l. 35046 FC6
    - m. 35046 FC10
    - n. 35046 FC11
  - iii. EES Coke failed to tag components such that they may be distinguished readily from non-applicable components. The following list identifies the nearest tag to the untagged component or a potential tag identification provided for by EES Coke:
    - o. 31003 VA18
    - p. 35046 SG3 (valve below this tag)
    - q. 35033 V30 (next to this tag)
    - r. 41009 (control valve between V5 and V6)
    - s. 41011 (control valve between V14 and V15)

- t. 34002 V5
- u. 34002 V7
- v. 35021 (valve above V5)

19. The following Benzene Waste Operation (BWO) requirements are relevant to this FOV:

- i. The BWO provision at 40 C.F.R. § 61.346(a) states that except as provided in paragraph (b) of this section, the owner or operator shall meet the following standards for each individual drain system in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart.
- ii. The BWO provision at 40 C.F.R. § 61.346(a)(1) states that the owner or operator shall install, operate, and maintain on each drain system opening a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device.
- iii. The BWO provision at 40 C.F.R. § 61.355(c)(2) states that the owner or operator shall provide sufficient information to document the flow-weighted annual average benzene concentration of each waste stream. Examples of information that could constitute knowledge include material balances, records of chemicals purchases, or previous test results provided the results are still relevant to the current waste stream conditions. If test data are used, then the owner or operator shall provide documentation describing the testing protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the flow-weighted annual average benzene concentration for the waste stream. When an owner or operator and the Administrator do not agree on determinations of the flow-weighted annual average benzene concentration based on knowledge of the waste, the procedures under paragraph (c)(3) of this section shall be used to resolve the disagreement.
- iv. The BWO provision at 40 C.F.R. § 61.355(c)(3)(iv) states that each waste sample shall be analyzed using one of the test methods identified in paragraphs (A) through (F) of this section for determining the benzene concentration in a waste stream.
- v. The BWO provision at 40 C.F.R. § 61.346(b)(1) states that each drain shall be equipped with water seal controls or a tightly sealed cap or plug.

20. During the October 17, 2006 inspection, the following BWO violations were identified:

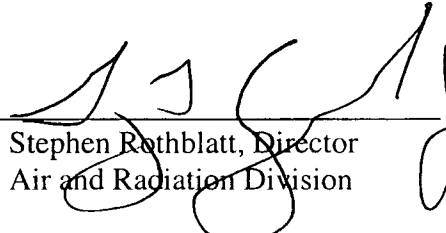
- i. EES Coke failed to use one of the six methods provided for in the standard at the points of generation where EES Coke performed sampling to determine the annual average benzene concentration.
- ii. EES Coke failed to route all organic vapors from the Coke Oven Gas Booster Drip pump effluent (that goes through a drain system) through a cover and closed-vent system, that routes all organic vapors vented from the drain system to a control device.

iii. EES Coke failed to properly operate drain valves at the Light Oil Storage Tank and at both Primary Light Oil Pumps such that the drain valve would be closed to prevent benzene emission losses to the atmosphere.

21. During April of 2004, EES Coke began incorporating petroleum coke into the coal blend that is charged to the ovens at the No. 5 Coke Oven Battery.
22. Based on historical coal, petroleum coke (petcoke), and metallurgical coke production and sulfur data provided to U.S. EPA by EES Coke, U.S. EPA has determined that the use of petcoke at the battery constitutes a major modification that resulted in a significant net emissions increase (greater than 40 tons per year) of sulfur dioxide .

6/29/07

Date

  
\_\_\_\_\_  
Stephen Rothblatt, Director  
Air and Radiation Division

ACTING

## CERTIFICATE OF MAILING

I, Shanee Rucker, certify that I sent a Notice and Finding of Violation, No. EPA-5-07-MI- 8 , by Certified Mail, Return Receipt Requested, to:

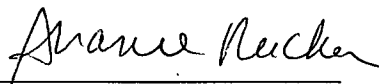
Yogendra Kumar, Environmental Manager  
EES Coke Battery, LLC  
P.O. Box 18309  
River Rouge, Michigan 48218

I also certify that I sent copies of the Finding of Violation and Notice of Violation by first class mail to:

Thomas Hess, Enforcement Unit Chief  
Michigan Department of Environmental Quality  
Air Quality Division  
Constitution Hall  
525 W. Allegan Street  
P.O. Box 30473  
Lansing, Michigan 48909-7973

Teresa Seidel, District Supervisor  
SE Michigan District Office  
27700 Donald Court  
Warren, Michigan 48902-2793

on the 26<sup>th</sup> day of June, 2007.

  
Shanee Rucker, Secretary  
AECAS, (MI/WI)

CERTIFIED MAIL RECEIPT NUMBER: 70010320 0006 0198 8829