Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 1 of 119 Page ID #834

IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF ILLINOIS EAST ST. LOUIS DIVISION

UNITED STATES OF AMERICA, and The STATE OF ILLINOIS, and The STATE OF OHIO,

Plaintiffs,

v.

GATEWAY ENERGY & COKE COMPANY, LLC,

and

HAVERHILL COKE COMPANY, LLC,

and

SUNCOKE ENERGY, INC.,

Defendants.

Civil Action No. 3:13-cv-00616-DRH-SCW

CONSENT DECREE

TABLE OF CONTENTS

I.	JURISDICTION AND VENUE	3
II.	APPLICABILITY	3
III.	DEFINITIONS	
IV.	COMPLIANCE REQUIREMENTS	12
A.	Redundant HRSG Project	
B.	Emission Limits	13
C.	Emissions Minimization During All Bypass Venting	16
D.	Root Cause Failure Analysis for Bypass Venting Incidents	17
E.	Future Emissions Reductions	21
F.	Quantification of Emissions During Bypass Venting	22
G.	Stack Testing and Continuous Emissions Monitoring	23
H.	FGD and HRSG PMO Plan and Reliability Studies	25
I.	Permit Requirements	27
J.	Reporting Requirements	
V.	CIVIL PENALTY	
VI.	FEDERAL-ONLY SUPPLEMENTAL ENVIRONMENTAL PROJECT	
VII.	STIPULATED PENALTIES	41
VIII.	FORCE MAJEURE	49
IX.	DISPUTE RESOLUTION	51
X.	INFORMATION COLLECTION AND RETENTION	53
XI.	EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS	55
XII.	COSTS	57
XIII.	NOTICES	57
XIV.	EFFECTIVE DATE	58
XV.	RETENTION OF JURISDICTION	58
XVI.	MODIFICATION	58
XVII.	TERMINATION	59
XVIII.	PUBLIC PARTICIPATION	61
XIX.	SIGNATORIES/SERVICE	62
XX.	INTEGRATION	62
XXI.	FINAL JUDGMENT	63
XXII.	APPENDICES	63

WHEREAS, Plaintiffs, the United States of America ("United States"), on behalf of the United States Environmental Protection Agency ("EPA"); the State of Illinois ("Illinois"); and the State of Ohio ("Ohio"), on behalf of the Ohio Environmental Protection Agency ("Ohio EPA") and its contractual agent, the Portsmouth Local Air Agency, have filed a complaint ("Complaint") concurrently with this Consent Decree, alleging that Defendants Haverhill Coke Company LLC ("HNCC"), Gateway Energy Coke Company ("GECC"), and SunCoke Energy. Inc. (together, the "Defendants") violated Sections 160-169 of the Clean Air Act ("CAA" or "Act"), 42 U.S.C. §§ 7470-7479, and analogous State laws including Section 9.1 of the Illinois Environmental Protection Act, 415 ILCS 5/9 (2010), and Chapter 3704 of the Ohio Revised Code ("R.C.") and the rules adopted thereunder, and the federally-enforceable State Implementation Plan ("SIPs") for Illinois and Ohio approved by EPA pursuant to Section 110 of the CAA, 42 U.S.C. § 7410, which incorporate and/or implement the above-listed federal requirements, and that Defendants violated the General Provisions of the National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 C.F.R. Part 63, Subpart A, promulgated under Section 112 of the Act, 42 U.S.C. § 7412, which require at all times operation and maintenance in a manner consistent with safety and good air pollution control practices for minimizing emissions;

WHEREAS, the Plaintiffs allege that at all times relevant to the Complaint, HNCC and SunCoke and/or its predecessors in interest owned and operated the Haverhill Coke Company LLC plant in Franklin Furnace, Ohio ("Haverhill Facility"), and GECC and SunCoke owned and operated the Gateway Energy and Coke Company ("Gateway Facility") plant in Granite City, Illinois (the "Facilities");

1

WHEREAS, the Plaintiffs allege that Defendants and/or their predecessors in interest operated the Facilities in excess of Bypass Venting limits specified in their Prevention of Significant Deterioration ("PSD") Permits, and emitted sulfur dioxide ("SO₂"), particulate matter ("PM"), nitrogen oxides ("NOx") and lead ("Pb") through the Bypass Vents above applicable permit limits, and that Defendants have failed to comply with ongoing requirements for emissions monitoring, recordkeeping, and reporting, in violation of the CAA;

WHEREAS, as more specifically described in Section IV (Compliance Requirements), Defendants have agreed to install redundant Heat Recovery Steam Generators ("HRSGs") at the Facilities to reduce the release of waste heat and associated emissions directly to atmosphere from Bypass Vent Stacks and thereby reduce SO₂, PM, Sulfuric Acid Mist, hydrochloric acid ("HCI"), mercury ("Hg"), and Pb and to implement good air pollution control practices to minimize air pollution at the Facilities;

WHEREAS, Defendants have represented that each of the Facilities requires 14 days of maintenance time over a rolling 24 month period for FGD and HRSG maintenance after installation of the redundant HRSGs;

WHEREAS, Defendants do not admit the violations alleged in the Complaint and have worked cooperatively with the Plaintiffs to settle this matter in an expedited manner;

WHEREAS, the Parties recognize, and this Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith, will avoid litigation among the Parties, and that this Consent Decree is fair, reasonable, and in the public interest;

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I (Jurisdiction and Venue), and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1345, 1355, 1362, and 1367, and Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and over the Parties. Venue lies in this District pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c) and 1395(a), because some of the violations alleged in the Complaint are alleged to have occurred in, and Defendants conduct business in, this judicial district. Defendants consent to this Court's jurisdiction over this Consent Decree and any action to enforce this Consent Decree, and to venue in this judicial district.

2. For purposes of this Consent Decree, Defendants agree that the Complaint states claims upon which relief may be granted pursuant to Sections 111, 165 and 502 of the CAA, 42 U.S.C. §§ 7411, 7475 and 7661a.

3. Notice of the commencement of this action has been given to the States of Ohio and Illinois as required by Section 113 of the CAA, 42 U.S.C. § 7413.

II. <u>APPLICABILITY</u>

4. The obligations of this Consent Decree apply to and are binding upon the United States, the State of Illinois, the State of Ohio, and upon Defendants and their officers, employees, agents, successors, assigns, and other entities or persons otherwise bound by law.

5. Defendants shall condition any transfer, in whole or in part, of ownership of, operation of, or other interest (exclusive of any non-controlling, non-operational shareholder interest) in, the Haverhill, Middletown or Gateway Facilities upon the execution by the

transferee of a modification to the Consent Decree, which makes the terms and conditions of the Consent Decree that apply to the respective Facility applicable to the transferee. In the event of such transfer, Defendants shall notify the United States and, in the case of the Gateway Facility, the State of Illinois, and, in the case of the Haverhill or Middletown Facilities, the State of Ohio. By no earlier than thirty (30) Days after such notice, Defendants may file a motion to modify the Consent Decree with the Court to make the terms and conditions of the Consent Decree applicable to the transferee. Defendants shall be released from the obligations and liabilities of this Consent Decree unless the United States opposes the motion and the Court finds the transferee does not have the financial and technical ability to assume the obligations and liabilities under the Consent Decree. The requirements of this Paragraph 5 shall not apply to transfers to SunCoke affiliates, who will be bound by this Decree upon transfer as an assignee.

6. Defendants shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties include compliance with any provision of this Decree, as well as any contractor retained to perform work required under this Consent Decree. Defendants shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.

7. <u>Purpose</u>. It is the express purpose of the Parties in entering this Consent Decree to further the objectives of the Act, as enunciated in Section 101 of the Act, 42 U.S.C. § 7401 *et seq.*, and with respect to the Gateway Facility, the objectives of the Illinois Environmental Protection Act, 415 ILCS 5/1 *et seq.*, and with respect to the Haverhill Facility, the objectives of Chapter 3704 of the Ohio Revised Code. All plans, reports, construction, maintenance and other obligations in this Consent Decree or resulting from the activities required by this Consent Decree shall have the objective of causing Defendants to come into and remain in full

4

compliance with the terms of its applicable permits and the Act, and Chapter 3704 of the Ohio Revised Code for the Haverhill Facility and the Illinois Environmental Protection Act with respect to the Gateway Facility.

III. **DEFINITIONS**

8. Terms used in this Consent Decree that are defined in the CAA or in federal and state regulations promulgated pursuant to the CAA shall have the meaning assigned to them in the CAA or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, including attached appendices, the following definitions shall apply:

a. "Affected Coke Oven Battery" shall mean all heat recovery ovens, where coal undergoes destructive distillation to produce coke, at HNCC No. 1, HNCC No. 2, and GECC, respectively.

b. "Baghouse" shall mean the fullstream (fabric filter/membrane) particulate emission control device. The Baghouse is a part of the associated Flue Gas Desulfurization Unit ("FGD").

c. "Bypass Vent Stack" shall mean each vent stack located between the coke oven battery common tunnel and each HRSG at the Facilities. In HNCC's Construction Permit – PSD PTI 07-00511, Bypass Vent Stacks are termed "bypass vents," and are identified as Stacks 1-10. In GECC's Construction Permit -- PSD Approval No. 06070020, issued March 13, 2008, these vent stacks are termed "waste heat stacks," and are identified as Stacks 1-6.

d. "Bypass Venting" shall mean the redirection of a gas stream, including associated waste heat and emissions at an Affected Coke Oven Battery (a) through the Bypass Vent Stacks directly to the atmosphere (thereby bypassing the HRSGs and FGD) for any reason, or (b) through the Main Stack when such venting is not controlled by the FGD. Bypass Venting through a Bypass Vent Stack commences when a Bypass Vent Stack lid opens and continues until the Bypass Vent Stack lid closes; Bypass Venting through the Main Stack occurs when a gas stream vented through the Main Stack is not controlled by the FGD and continues until venting through the Main Stack is controlled by the FGD.

e. "Bypass Venting Incident" shall mean all Bypass Venting that lasts longer than thirty (30) cumulative minutes for all stacks at an Affected Coke Oven Battery over a twenty-four (24) hour period. This definition shall be used only to determine if a root cause analysis is required pursuant to Paragraph 20 for a period of Bypass Venting. This definition shall not be used to determine compliance with the emissions limitations contained in the Consent Decree or applicable Permits.

f. "Charging" shall mean the process of introducing coal feed into a coke oven.

g. "Coal sulfur content" shall mean the elemental composition of sulfur in coal by weight as determined by methods approved in the Permits.

h. "Complaint" shall mean the complaint filed by the United States, the State of Illinois, and the State of Ohio in this action.

i. "Consent Decree" or "Decree" shall mean this Decree and all appendices attached hereto.

j. "Day" shall mean a calendar day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

k. "Defendants" shall mean HNCC, GECC, and SunCoke Energy.

6

"Effective Date" shall have the meaning given in Section XIV (Effective Date).

m. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies.

n. "Existing HRSG" shall mean a HRSG that is already installed and operational at either the Haverhill Facility or the Gateway Facility on the Effective Date.
Existing HNCC HRSGs are HRSGs 1-5 at HNCC No. 1, and HRSGs 6-10 at HNCC No. 2.
Existing GECC HRSGs are HRSGs 1-6 at GECC.

o. "Flue Gas Desulfurization unit" or "FGD" shall mean a dry scrubber used to remove sulfur dioxides and acid gases, among other pollutants, from the products of combustion or flue gases from gaseous waste streams before discharge to the atmosphere. HNCC owns and operates two FGDs, distributed as one per one hundred (100) ovens among the two hundred (200) coke ovens at the Haverhill Facility. GECC owns and operates one FGD, which serves the Gateway Facility's one hundred and twenty (120) coke ovens.

p. "FGD Maintenance Bypass Venting" shall mean Bypass Venting at an Affected Coke Oven Battery due to Scheduled FGD Maintenance.

q. "Gateway Facility" shall mean the coke plant located at 2585 Edwardsville Road, Granite City, Illinois, 62040. The Gateway Facility includes one hundred and twenty coke ovens, six Heat Recovery Steam Generators, six Bypass Vent Stacks, one FGD, one Baghouse, one Main Stack, and ancillary equipment.

r. "GECC" shall mean the Gateway Energy & Coke Company, LLC.

s. "GECC Battery" shall mean the coke oven battery located at the Gateway Facility.

t. "Haverhill Facility" shall mean the coke plant located at 2446 Gallia Pike, Franklin Furnace, Ohio, 45629. The Haverhill Facility is divided into two one-hundred (100) coke oven batteries identified as HNCC No. 1 and HNCC No. 2, ten Heat Recovery Steam Generators (1-10), ten Bypass Vent Stacks (1-10), two FGDs, two Baghouses, two Main Stacks, and ancillary equipment.

u. "Heat Recovery Steam Generator" or "HRSG" shall mean an energy recovery heat exchanger that recovers heat from a hot gas stream for the purpose of steam generation.

v. "HNCC" shall mean the Haverhill Coke Company LLC.

w. "HRSG Maintenance Bypass Venting" shall mean Bypass Venting out of a single Bypass Vent Stack at an Affected Coke Oven Battery due to Scheduled HRSG Maintenance.

x. "HRSG Outage" means the period of time when a HRSG is not operating.

y. "Illinois" shall mean the State of Illinois.

z. "Main Stack" shall mean the main stack located at the end of the control train after the FGD and baghouse.

aa. "Malfunction" shall mean any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner that causes, or has the potential to cause, the emissions limitations in an applicable standard or permit to be exceeded. Failures that are caused in part or entirely by poor maintenance or careless operation are not malfunctions. Nothing in this definition shall eliminate the obligation of HNCC No. 1 and No. 2 to comply with the requirements of Ohio Adm. Code 3745-15-06. bb. "Middletown Facility" shall mean the coke plant located at 3353 Yankee Road, Middletown, Ohio 45044. The Middletown Facility includes one hundred (100) coke ovens, five (5) HRSGs, five (5) Bypass Vent Stacks, one FGD, one Baghouse, one Main Stack, and ancillary equipment.

cc. "Month" shall mean calendar month.

dd. "Ohio" shall mean the State of Ohio, acting on behalf of Ohio EPA and the Portsmouth Local Air Agency.

ee. "Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral.

ff. "Particulate matter" or "PM" emissions shall mean all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by applicable reference methods, or an equivalent or alternative method, specified in 40 C.F.R. Chapter 1, or by a test method specified in an approved State implementation plan.

gg. "Parties" shall mean the United States, the State of Illinois, the State of Ohio, HNCC, GECC, and SunCoke Energy.

hh. "Permits" shall mean GECC's Construction Permit – PSD Approval No. 06070020, issued by the Illinois Environmental Protection Agency March 13, 2008 – and HNCC's Final PSD Permit-to-Install (PTI) 07-00511, issued December 11, 2003, as modified by HNCC's Final Administrative Modification of PSD Permit-to-Install (PTI) 07-00511, issued by the Ohio Environmental Protection Agency on January 15, 2008, all as may be modified from time to time, not inconsistent with Section IV.I (Permit Requirements) of this Decree.

ii. "PSD" shall mean the Prevention of Significant Deterioration requirements at Part C of Subchapter I of the CAA, 42 U.S.C. §§ 7470-7492, and the implementing regulations at 40 C.F.R. Part 52, and as incorporated in Ohio Adm. Code Section 3745-31. Approval and Promulgation of Implementation Plans; Ohio, 68 Fed. Reg. 2909 (January 22, 2003), revised by Approval and Promulgation of Implementation Plans; Ohio New Source Review Rules, 75 Fed. Reg. 8496 (February 25, 2010).

jj. "Redundant HRSG" shall mean a HRSG that operates simultaneously with an Existing HRSG, including in the event of the loss of one of the Existing HRSGs, that meets the criteria set forth in Section IV.A (Redundant HRSG Project).

kk. "Redundant HRSG Tie-In" shall commence when a hot duct at an Existing
HRSG is cooled for purposes of installing a Redundant HRSG, and shall conclude when a
Redundant HRSG and the Existing HRSGs can consistently operate simultaneously.

ll. "R.C." shall mean the Ohio Revised Code.

mm. "Rolling 12-Month Limit" shall mean an emission limit for a pollutant that applies for any twelve consecutive months.

nn. "Rolling 24-Month Limit" shall mean an emission limit for a pollutant that applies for any twenty-four consecutive months during the period in which the emissions limits in Paragraph 17 apply.

oo. "Root Cause" shall mean the primary cause or causes of a Bypass Venting Incident as determined by the Root Cause Failure Analysis in Section IV.D (Root Cause Failure Analysis for Bypass Venting Incidents) of this Consent Decree.

pp. "Root Cause Failure Analysis" or "RCFA" shall mean an assessment conducted pursuant to Section IV.D (Root Cause Failure Analysis for Bypass Venting Incidents) of this Consent Decree to determine the primary cause and any contributing cause of a Bypass Venting Incident. qq. "Scheduled FGD Maintenance" shall mean preventative maintenance, inspection, and repair of FGD components, which is planned for and scheduled no less than twenty-one (21) Days prior to commencement of such activity. FGD work completed with at least forty-eight (48) hours' notice shall constitute Scheduled FGD Maintenance, provided that such work was originally scheduled no less than twenty-one (21) Days prior to the actual commencement of such activity.

rr. "Scheduled HRSG Maintenance" shall mean preventative maintenance, inspection, and repair of HRSG components, which is planned for and scheduled no less than seven (7) Days prior to commencement of such activity. HRSG work completed with at least forty-eight (48) hours' notice shall constitute Scheduled HRSG Maintenance, provided that such work was originally scheduled no less than seven (7) Days prior to the actual commencement of such activity.

ss. "Section" shall mean a portion of this Consent Decree identified by a Roman numeral.

tt. "SO2" shall mean sulfur dioxide.

vv.

uu. "SunCoke Energy" shall mean SunCoke Energy, Inc.

42 U.S.C. §§ 7661-7661f, and Section 39.5 of the Illinois Environmental Protection Act, 415 ILCS 5/39.5 (2010), and the implementing regulations at 40 C.F.R. Part 70, as may be modified from time to time, not inconsistent with Section IV.I (Permit Requirements) of this Decree, or a permit required by, or issued pursuant to, 42 U.S.C. §§ 7661-7661f, and Ohio R.C. 3704.036, and the implementing regulations at 40 C.F.R. Part 70, as may be modified from time to time, not inconsistent with Section IV.I (Permit Requirements) of this Decree.

"Title V Permit" shall mean a permit required by, or issued pursuant to,

ww. "Ton" or "tons" shall mean short ton or short tons. One ton equals 2000 pounds.

xx. "United States" shall mean the United States of America, acting on behalf of EPA.

IV. <u>COMPLIANCE REQUIREMENTS</u>

A. <u>Redundant HRSG Project</u>

9. No later than twenty-seven months after the Effective Date for HNCC No. 2 and fifty-one months after the Effective Date at HNCC No. 1 and the GECC Battery, Defendants shall have completed construction and commenced operation of the Redundant HRSGs.

10. Defendants shall design, construct, install, and operate redundant heat recovery steam generators ("Redundant HRSG Project") at each Affected Coke Oven Battery to capture, cool, and route to pollution control equipment waste gases and associated emissions from each Affected Coke Oven Battery during HRSG Outages.

11. The Redundant HRSG Project at HNCC No. 2 and HNCC No. 1 shall include installation of one or more Redundant HRSGs per one hundred (100) ovens, sufficient to collectively accommodate 100% of the gases from no less than twenty (20) ovens, at charge weights of forty-eight (48) tons of coal on a wet basis per oven. The Redundant HRSG Project at GECC shall include installation of one or more Redundant HRSGs per one-hundred twenty (120) ovens, sufficient to collectively accommodate 100% of the gases from no less than twenty (20) ovens, at charge weights of fifty (50) tons of coal on a wet basis per oven.

12. Each Redundant HRSG at each Affected Coke Oven Battery shall be operated concurrently with Existing HRSGs and be available to receive coking gases normally routed through Existing HRSGs on-demand, and shall be operated to prevent to the extent practicable,

any Bypass Vent Stack from opening during the transfer, except when the Redundant HRSG is down for maintenance.

13. Each Redundant HRSG shall be installed and operated in accordance with the

Redundant HRSG Work Plan attached as Appendix 1 to the Consent Decree.

B. <u>Emission Limits</u>

14. Beginning on the Effective Date, ending on the date Paragraph 17 takes effect,

and not including the Redundant HRSGs Tie-in periods referenced in Paragraph 15, Defendants

shall comply with the following Bypass Venting emission limits at each Affected Coke Oven

Battery specified in the table below:

	Each Bypass Vent Stack (pounds/hour)			Main Stack Bypass Venting (pounds/hour)			Total Bypass Venting (tons/year ^b)		
Pollu tant	HNCC No. 1	HNCC No. 2	GECC	HNCC No. 1	HNCC No. 2	GECC	HNCC No. 1	HNCC No. 2	GECC
SO ₂	323 ^c 420 ^d	323 ^c 420 ^d	323 ^c	1615 ^c 2100 ^d	1615 ^c 2100 ^d	1938 ^c	155.1	155.1	302.3
PM	34.3 ^a	34.3 ^a	34.3 ^a	171.5 ^a	171.5 ^a	205.8 ^a	16.5	16.5	30.24
Pb			0.186 ^a			1.116 ^a			0.17

Table Notes:

- a. Compliance shall be determined in accordance with Section IV.F (Quantification of Emissions During Bypass Venting). The emissions limits relating to PM include both filterable and condensable emissions.
- b. Rolling 12-month total.
- c. For any Bypass Venting Incident lasting 48 consecutive hours or longer, compliance shall be determined as a rolling 48-hour average, for each such Bypass Venting Incident. For any Bypass Venting Incident lasting less than 48 consecutive hours, this limit shall not apply.
- d. Based on a 3-hour block average.
 - 15. For purposes of Redundant HRSG Tie-In pursuant to this Consent Decree only,

Defendants shall have seven hundred twenty (720) hours to complete such work, per Bypass

Vent Stack, including all Bypass Venting through the Main Stack. From the time this work is

started until the time specified in Paragraph 17, Defendants shall comply with the limits

specified in the table below:

		Sypass Ver oounds/hou		Main Stack Bypass Venting (pounds/hour)				
Pollutant	HNCC No. 1	HNCC No. 2	GECC	HNCC No. 1	HNCC No. 2	GECC		
SO ₂	323 ^b	323 ^b	323 ^b	1615 ^b	1615 ^b	1938 ^b		
	420 ^c	420 ^c		2100 ^c	2100 ^c			
PM	34.3 ^a	34.3 ^a	34.3 ^a	171.5 ^a	171.5 ^a	205.8 ^a		
Pb			0.186 ^a			1.116 ^a		

Table Notes:

a. Compliance shall be determined in accordance with Section IV.F (Quantification of Emissions During Bypass Venting). The emissions limits relating to PM include both filterable and condensable emissions.

b. For any Bypass Venting Incident lasting 48 consecutive hours or longer, compliance shall be determined as a rolling 48-hour average, for each such Bypass Venting Incident. For any Bypass Venting Incident lasting less than 48 consecutive hours, this limit shall not apply.

c. Based on a 3-hour block average.

16. Compliance with the SO_2 limits in Paragraphs 14 and 15 shall be determined

pursuant to Section IV.F using (a) the average of all of the concentration data from the continuous emissions monitoring system ("CEMS") required by Section IV.G.b, for the duration of the Bypass Venting or as otherwise defined in the limits in Paragraphs 14 and 15 above, when the CEMS is producing valid data, (b) average flow rate from the Flue Gas Flow Rate Study required by Paragraph 36 (or, in the case of a bypass through the Main Stack, valid CEMS and flow data from the Main Stack); and (c) the duration of the Bypass Venting. If the CEMS is not operational and producing valid data by the time the HRSG Outage begins, compliance with the SO₂ limits in Paragraphs 14 and 15 shall be determined pursuant to Section IV. F using the most recent stack test required by Section IV.G.a. Compliance with the Pb and PM limits in

Paragraphs 14 and 15 shall be determined by the stack tests required by Section IV.G.a.

Compliance with the rolling 12-Month Limits in Paragraph 14 shall be determined by adding the sum of the emissions over a twelve (12) month period, commencing one year after the Effective Date and ending twenty-seven (27) months after the Effective Date for HNCC No. 2 and fifty-one (51) months after the Effective Date for HNCC No. 1 and the GECC Battery. Nothing in this Paragraph shall be interpreted to preclude Defendants from disconnecting the Bypass Vent Stack CEMS in order to complete the Redundant HRSG Tie-ins required by Section IV.A for a period not to exceed 360 total cumulative hours.

17. Beginning on the earlier of (a) the date Defendants notify Plaintiffs that the redundant HRSGs at HNCC No. 2, HNCC No. 1, and the GECC Battery, respectively, are fully operational or (b) twenty-seven (27) months after the Effective Date at HNCC No. 2 and fifty-one (51) months after the Effective Date at HNCC No. 1 and the GECC Battery, Defendants shall comply with the Bypass Venting emission limits¹ specified in the table below at each Affected Coke Oven Battery:

	Each Bypass Vent Stack (pounds/hour)			Main Stack Bypass Venting (pounds/hour)			Total Bypass Venting (tons/year ^b)		
Pollu tant	HNCC No. 1	HNCC No. 2	GECC	HNCC No. 1	HNCC No. 2	GECC	HNCC No. 1	HNCC No. 2	GECC
SO ₂	323 ^c 420 ^d	323 ^c 420 ^d	323°	1615 ^c 2100 ^d	1615 ^c 2100 ^d	1938 ^c	271.3	271.3	325.6
PM	34.3 ^a	34.3 ^a	34.3 ^a	171.5 ^a	171.5 ^a	205.8 ^a	28.8	28.8	34.6
Pb			0.186 ^a			1.116 ^a			0.188

¹ Nothing in Paragraph 17 of this Consent Decree shall eliminate Defendants' obligations to comply with the existing requirements of Defendants' relevant permits.

Table Notes:

- a. Compliance shall be determined in accordance with Section IV.F (Quantification of Emissions During Bypass Venting). The emissions limits relating to PM include both filterable and condensable emissions.
- b. Rolling 24-month total.
- c. For any Bypass Venting Incident lasting 48 consecutive hours or longer, compliance shall be determined as a rolling 48-hour average, for each such Bypass Venting Incident. For any Bypass Venting Incident lasting less than 48 consecutive hours, this limit shall not apply.
- d. Based on a 3-hour block average.

18. Compliance with the limits in Paragraph 17 shall be determined pursuant to

Section IV.F using the most recent stack test required by Section IV.G.a. Compliance with the

Rolling 24-Month Limits in Paragraph 17 shall be determined by adding the emissions over a

twenty-four (24) month period, commencing two years after Paragraph 17 takes effect.

C. Emissions Minimization During All Bypass Venting

19. During all periods of Bypass Venting at each Facility, Defendants shall minimize

Bypass Venting emissions at each Affected Coke Oven Battery. Accordingly, Defendants shall, if practicable, take the following actions (beginning forty-eight (48) hours prior to the period of Bypass Venting if practicable, and if that is not practicable, as soon as the Facility can do so), or if not taken, shall indicate in the Root Cause Failure Analysis required by Paragraph 20 why the steps were not taken:

a. Reduce the coal charge at each Affected Coke Oven Battery to no more than a forty-two and a half (42.5) ton average on a wet weight basis. If the Bypass Venting is caused by a HRSG Outage, Defendants need only reduce the coal charged to the ovens affected by the HRSG Outage;

b. Minimize sulfur content of coal charged to each oven to no more than1.1% by weight. If the Bypass Venting is caused by a HRSG Outage, Defendants need only

minimize to 1.1% by weight or less the sulfur content of the coal charged to the ovens affected by the HRSG Outage; and

c. Minimize the duration of the Bypass Venting to the extent practicable.

D. Root Cause Failure Analysis for Bypass Venting Incidents

20. <u>Contents and Timing of Reports</u>. Beginning after the Effective Date, Defendants shall complete a Root Cause Failure Analysis ("RCFA") within thirty (30) Days of the conclusion of any Bypass Venting Incident at any Affected Coke Oven Battery. Defendants shall include the RCFA(s) in the semi-annual report required by Section IV.J. Such reports shall set forth the following information concerning the Bypass Venting Incident:

a. The date and time that the Bypass Venting Incident started and ended. To the extent that the Bypass Venting Incident involved multiple releases either within a twenty-four (24) hour period or within subsequent, contiguous, non-overlapping twenty-four (24) hour periods, Defendants shall set forth the starting and ending dates and times of each release;

b. An estimate of the quantity of SO₂, PM, and Lead emissions that were emitted and the calculations that were used to determine that quantity;

c. Identification of the steps taken and not taken pursuant to Paragraph 19, along with (1) an explanation of why any steps identified in Paragraph 19 were not taken, (2) an estimate of the sulfur content of the coal charged into each coke oven whose emissions are bypassed, and (3) an estimate of the corresponding charge weights associated with each such coke oven;

d. For a Bypass Venting Incident that is a result of the following, Defendants need only provide the information in subparagraphs (a), (b), and (c) above and note one of the

below as the cause of the Bypass Venting:

 (1) Venting that occurs before Paragraph 17 takes effect, and that results from Scheduled HRSG Maintenance that is conducted in compliance with the applicable Permit; or

(2) Venting that results from Scheduled FGD Maintenance that is conducted in compliance with the applicable Permit or for which Defendants receive Director's approval; or

(3) Venting that occurs before twenty-seven (27) months after the Effective Date for HNCC No. 2 and before fifty-one (51) months after the Effective date for HNCC No. 1 and the GECC Battery as a result of completing the Redundant HRSG Tie-In so long as

i. Defendants have submitted notification to EPA and Illinois or Ohio, as applicable, in the manner set forth in Section XIII (Notices), at least thirty (30) Days prior to the initiation of the Bypass Venting;

ii. Defendants follow the Project Schedule set forth in the Redundant HRSG Work Plan (Appendix 1); and

iii. The total duration of Bypass Venting for the purposes of Redundant HRSG Tie-In at each Affected Coke Oven Battery is no longer than seven hundred and twenty (720) hours, per Existing HRSG.

(4) Venting that occurs after Paragraph 17 takes effect, and that results from transferring waste gas from an Existing HRSG to a Redundant HRSG in order to perform Scheduled HRSG Maintenance that is conducted in compliance with the applicable Permit so long as the Bypass Venting Incident does not last more than sixty (60) minutes for each transfer. e. For all other Bypass Venting Incidents, the RCFA will include the requirements in subparagraphs (a), (b), (c) and (f-i):

f. A detailed analysis that sets forth the root cause(s) and all contributing causes of that Bypass Venting Incident, to the extent determinable, and the steps, if any, that Defendants took to limit the duration and/or quantity of emissions associated with the Bypass Venting Incident;

g. An analysis of the measures, if any, that are reasonably available to prevent or reduce the likelihood of a recurrence of the Bypass Venting Incident resulting at the same Affected Coke Oven Battery from the same root cause(s) and contributing causes in the future. The analysis shall evaluate design, operational, and maintenance changes, if any; the probable effectiveness of each such measure; the likely cost of each measure; and whether or not an outside consultant should be retained to assist in the analysis;

h. Either a description of corrective action(s) implemented under this Section or, if not already implemented, a schedule for its (their) implementation, including proposed commencement and completion dates, or an explanation that corrective action(s) is (are) not required;

i. To the extent that investigations of the causes and/or possible corrective actions still are underway on the due date of the report, a statement of the anticipated date by which a follow-up report fully conforming to the requirements of this Paragraph will be submitted; provided, however, that if Defendants have not submitted a report or a series of reports containing the information required to be submitted under this Paragraph within sixty (60) Days (or such additional time as EPA may allow) after the due date for the initial report for any Event, the stipulated penalty provisions of Section VII (Stipulated Penalties) shall apply for

failure to timely submit the report. Nothing in this Paragraph shall be deemed to excuse Defendants from their investigation, reporting, and corrective action obligations under this Section for any Bypass Venting Incident which occurs after another Bypass Venting Incident for which Defendants have requested an extension of time under this Paragraph; and

j. To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the submission of the report required under this Paragraph, then, by no later than thirty (30) Days after completion of the implementation of corrective action(s), Defendants shall submit a report identifying the corrective action(s) taken and the dates of commencement and completion of the implementation.

21. <u>Corrective Actions Required</u>. In response to any Bypass Venting Incident other than those referenced in Paragraph 20.d., Defendants shall, as expeditiously as possible, implement such interim and/or long-term corrective actions, if any, as are reasonable and consistent with good engineering practices to minimize the likelihood of a recurrence of the root causes and any contributing causes of that Bypass Venting Incident.

22. If EPA, after consultation with Illinois EPA for corrective actions pertaining to GECC and with Ohio EPA for corrective actions pertaining to HNCC, does not notify Defendants in writing within sixty (60) Days of receipt of the report(s) required by Paragraph 20 that it objects to one or more aspects of Defendants' proposed corrective action(s), if any, and schedule(s) of implementation, if any, then that (those) action(s) and schedule(s) shall be deemed acceptable for purposes of compliance with Paragraphs 20 and 21 of this Consent Decree.

23. EPA, Illinois EPA, and Ohio EPA do not, by their agreement to the entry of this Consent Decree or by their failure to object to any corrective action that Defendants may take in the future, warrant or aver in any manner that any of Defendants' corrective actions in the future will result in compliance with the provisions of the CAA, the Illinois Environmental Protection Act, or R.C. Chapter 3704, or their implementing regulations. Notwithstanding EPA's, Illinois EPA's, and Ohio EPA's review of any plans, reports, corrective actions, or procedures under this Section IV.D, Defendants shall remain solely responsible for compliance with the CAA, the Illinois Environmental Protection Act, and R.C. Chapter 3704, and their implementing regulations. Nothing in this Paragraph shall be construed as a waiver of EPA's, Illinois EPA's, or Ohio EPA's rights under the CAA, the Illinois Environmental Protection Act, or R.C. Chapter 3704, or their regulations for future violations of the CAA or its regulations.

24. If EPA, after consultation with Illinois EPA or Ohio EPA, as appropriate, does object, in whole or in part, to Defendants' proposed corrective action(s) and/or its schedule(s) of implementation, or, where applicable, to the absence of such proposal(s) and/or schedule(s), it shall notify Defendants of that fact within sixty (60) Days following receipt of the RCFA required by Paragraph 20. If EPA and Defendants cannot agree on the appropriate corrective action(s), if any, to be taken in response to a particular Bypass Venting Incident, any Party may invoke the Dispute Resolution provisions of Section IX of the Consent Decree (Dispute Resolution).

E. Future Emissions Reductions

25. The Parties recognize that the reduced Bypass Venting expected to result from compliance with this Consent Decree after start-up of the Redundant HRSGs will lower emissions of SO₂ and PM, and Pb (for the GECC Battery) from the current annual permit limits applicable to the period prior to start-up of the Redundant HRSGs. Defendants shall provide the information required by Section IV.F (Quantification of Emission During Bypass Venting) regarding emissions during Bypass Venting pursuant to Section IV.J (Reporting Requirements)

to allow calculations of emissions reductions achieved pursuant to the Consent Decree. The reduced Bypass Venting will also result in reductions of sulfuric acid mist, hydrochloric acid, and mercury emissions from previously emitted levels.

F. Quantification of Emissions During Bypass Venting

26. Except as otherwise provided in Paragraph 16, for all regulated pollutants subject to a stack test, the quantity of emissions at both the Main Stack and Bypass Vent Stacks, at each respective Facility, as applicable, from all Bypass Venting shall be calculated using data from the most recent, representative stack test performed during Bypass Venting, using the following formula:

$$BPS = \sum_{i} D_{i} P$$

The Variables and Derivation of Multipliers used in the Equations in this Paragraph shall have the following meanings:

C = mass of Contaminant

P = mass flow rate of Contaminant

 D_i = duration of Bypass Venting on Bypass Vent Stack *i*, except for Bypass Venting in compliance with Paragraph 15

BPS = Bypass Vent Stacks Open during Bypass Venting, where *i* equals each individual open Bypass Stack; during Bypass Venting through the FGD, *i* is all bypass stacks from which venting is occurring and/or would have occurred but for the Bypass Venting at the Main Stack.

i = Bypass Vent Stack i

27. The quantity of pollutants emitted shall be rounded to one decimal point. (For example, subsequent to a calculation that results in a number equal to 10.050 tons, the quantity of the pollutant emitted shall be rounded to 10.1 tons and 10.049 tons would be rounded to 10.0 tons.) For purposes of determining the occurrence of, or the total quantity of emissions resulting from Bypass Venting that is comprised of intermittent Bypass Venting, the quantity of pollutants emitted shall be equal to the sum of the quantities of the pollutant emitted during each such period of intermittent Bypass Venting.

28. Any disputes under the provisions of this Section shall be resolved in accordance with Section IX (Dispute Resolution) of this Consent Decree.

G. Stack Testing and Continuous Emissions Monitoring

a. <u>Stack Testing</u>

29. During each period of Scheduled FGD Maintenance more than ninety (90) Days after the Effective Date that is scheduled to last more than two (2) Days, Defendants shall conduct the stack performance tests (stack tests) required under this Subsection.

30. Defendants shall conduct stack tests measuring the emission rate of Pb, PM, PM₁₀, HCl, mercury, sulfuric acid mist, NO_x, (pre- and post-redundancy), and SO₂ (postredundancy), at one Bypass Vent in accordance with the applicable requirements of 40 C.F.R. Part 60, Appendix A; however, Defendants shall implement the requirements of Paragraph 19 when conducting stack tests during periods of Bypass Venting. Defendants shall use best efforts to ensure accurate measurements of coke production during each test run.

31. By no later than sixty (60) Days before any stack test is conducted, Defendants shall submit for approval to EPA and Illinois EPA (in the case of the Gateway Facility) or Ohio

EPA (in the case of the Haverhill Facility), in the manner set forth in Section XIII (Notices), notice of its intent to conduct such test.

32. The notification required by Paragraph 31 must include the scheduled date of the test, an emissions test protocol, a description of the planned operating rate and operating conditions, and the procedures that will be used to measure maximum charge weight and rate. If EPA requires modification of information submitted in the notification within thirty (30) days of the notice required by Paragraph 31, Defendants shall make such adjustments and conduct the stack test in conformity with EPA's requirements in accordance with Paragraphs 55-59.

33. By no later than sixty (60) Days after conducting a stack test, Defendants shall submit to EPA and Illinois EPA (in the case of the Gateway Facility) or Ohio EPA (in the case of the Haverhill Facility), in the manner set forth in Section XIII (Notices), a report documenting the results of the stack test.

b. **CEMS Requirements**

34. Within one hundred eighty (180) Days of the Effective Date, Defendants shall install and calibrate an SO₂ CEMS capable of measuring the SO₂ concentration at one Bypass Vent Stack at each Affected Coke Oven Battery in a manner that complies with 40 C.F.R. Part 60, Appendix B, Performance Specification 2, and the quality assurance/quality control requirements specified in 40 C.F.R. Part 60, Appendix F. Defendants shall use best efforts to attempt to certify the CEMS on the first, and in any event, no later than the second, Scheduled HRSG Maintenance following installation of the CEMS associated with the Bypass Vent Stack on which the CEMS is located. The parties recognize that this is an innovative attempt to employ a CEMS on an uncontrolled and extremely hot vent gas stream, and that the application of a CEMS on a stack that is venting only sporadically may be impracticable. Defendants shall

use best efforts to maintain and operate a CEMS at each Affected Coke Oven Battery in accordance with Paragraph 35 below, until the Redundant HRSG at that Affected Coke Oven Battery has commenced operation.

35. Except during CEMS breakdowns, repairs, calibration checks, zero span adjustments, and when disconnected pursuant to Paragraph 16, the SO₂ CEMS on each of the Facilities shall be in continuous operation for the period required by Paragraph 34 to demonstrate compliance with the applicable SO₂ emission limits established in Paragraphs 14 and 15. Defendants shall use best efforts to avoid CEMS breakdowns and minimize CEMS downtime during Bypass Venting. This shall include, but is not limited to, operating and maintaining the CEMS in accordance with best practices and maintaining an adequate on-site inventory of spare parts or other supplies necessary to make rapid repairs to the equipment.

36. Defendants shall complete the Flue Gas Flow Rate Study that is Appendix 2 to this Consent Decree at one Bypass Vent Stack at each Affected Coke Oven Battery during one of the first five Scheduled HRSG Maintenance events at each Affected Coke Oven Battery following the Effective Date. The average flow rate from the study for each Affected Coke Oven Battery shall be used, in conjunction with the CEMS data, to determine compliance with Paragraphs 14 and 15.

H. FGD and HRSG PMO Plan and Reliability Studies

a. FGD and HRSG PMO Plans

37. By no later than six (6) months after the Effective Date, Defendants shall submit to EPA (and, for the Gateway Facility, Illinois EPA, and for the Haverhill Facility, Ohio EPA) for approval pursuant to Paragraphs 55-59 of the Consent Decree, a plan to implement enhanced maintenance and operation of the Affected Coke Oven Batteries, the HRSGs, the FGD, and all other pollution control equipment. These plans shall be termed Preventive Maintenance and Operation Plans ("PMO Plans"). Each PMO Plan shall be a compilation of the Defendants' approaches for exercising good air pollution control practices and for minimizing emissions at the Affected Coke Oven Batteries. The PMO Plan shall provide for continuous operation of the HRSGs and FGD between scheduled maintenance with minimization of emissions. The PMO Plan shall include, but not be limited to, emissions minimization plans, emergency procedures and schedules to coordinate Scheduled FGD Maintenance and Scheduled HRSG Maintenance. The PMO Plan shall have the goal of eliminating Bypass Venting to ensure compliance with Paragraph 17. Defendants shall comply with the PMO Plan at all times, including periods of Startup, Shutdown and Malfunction of the HRSG and FGD. If Defendants make changes to a PMO Plan related to minimizing Bypass Venting and/or emissions, such changes shall be summarized and reported to EPA and the Illinois EPA or Ohio EPA, as appropriate, pursuant to Section IV.J (Reporting Requirements) of the Consent Decree. Such changes may be implemented immediately, but nonetheless shall be subject to approval under Paragraphs 55-59 of this Consent Decree.

b. **<u>Reliability Studies</u>**

38. Each PMO Plan for each Affected Coke Oven Battery will also contain FGD/HRSG Reliability Studies ("Reliability Studies"), which will (1) comprehensively catalog and describe all projects implemented in the past to improve the reliability of the operation of Existing FGDs and Existing HRSGs at the Affected Coke Oven Batteries, and (2) discuss or propose potential future reliability enhancements, including—but not limited to—the following:

- a. Addition of instrumentation at atomizer gas inlets to monitor balance;
- b. Selective use of atomizers for reduced load conditions;

c. Addition of dew-point analyzers;

d. Testing and implementation of spray dryer absorber thermocouple chain;

and

e. Increasing the number of spare atomizers for additional maintenance redundancy.

39. The Reliability Studies will contain a schedule for implementation of each project that Defendants recommend be implemented in Paragraph 38 and that provides for project implementation as soon as practicable.

40. To the extent that a reliability project not yet implemented is identified as a corrective action to address a Root Cause identified in a Root Cause Failure Analysis conducted pursuant to Section IV.D (Root Cause Failure Analysis for Bypass Venting Incidents), the schedule for implementing the reliability project as a corrective action pursuant to Paragraph 20.h will supersede any schedule adopted to implement the reliability project under this Section.

I. <u>Permit Requirements</u>

41. <u>Permits Prior to Construction or Installation</u>. Defendants shall obtain all required federal, state, and local permits necessary for performing any compliance obligation under this Consent Decree, including without limitation any permits required by law for construction of the Redundant HRSG and pollution control technology, and the installation of equipment at the Facilities. Defendants may seek relief under the provisions of Section VIII (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation if Defendants have submitted timely and complete applications.

42. <u>Applications for Permits Incorporating the Limits in Section IV.B</u>. By no later than one (1) year after the Effective Date, Defendants shall submit an application to modify their federally-enforceable construction permit(s) and issued Title V operating permits for each Facility to the Ohio EPA (for the Haverhill Facility) and Illinois EPA (for the Gateway Facility), in accordance with applicable state and federal rules, including applicable administrative amendment and/or modification provisions of such rules, to incorporate the emissions limitations and their timing established in Paragraph 17 and the emissions quantification methodology established in Section IV.F (Quantification of Emissions During Bypass Venting).

43. Following submission of the complete permit application, Defendants shall cooperate with Ohio EPA or Illinois EPA, as applicable, by promptly submitting all available information that they seek following its receipt of the permit materials.

44. <u>Permits: Emission Limits and Standards</u>. This Consent Decree shall not terminate before the emissions limitations established in Paragraph 17 and the emissions quantification methodology established in Section IV.F (Quantification of Emissions During Bypass Venting) are incorporated into Defendants' federally-enforceable construction permit(s) and any issued Title V operating permits for the Facilities.

45. For any permit applications required by this Section that are filed after the Effective Date, Defendants shall submit to EPA in the manner set forth in Section XIII (Notices), a copy of each application, as well as a copy of any permit proposed as a result of such application, to allow for timely participation in any public comment opportunity. If, as of the Effective Date, Defendants have already received any permit necessary to implement the requirements of this Consent Decree, and if EPA has not already received such permits, then no

28

later than thirty (30) Days after the Effective Date, Defendants shall submit copies of such permits to EPA in the manner set forth in Section XIII (Notices).

46. <u>Emission Credit Generation</u>. Defendants shall not use any SO₂ PM, or Pb emission reductions required by this Consent Decree for the purpose of obtaining netting credits or offsets in any PSD, major NSR, and/or minor NSR permit or permit proceeding, and shall not buy, sell, or trade any emission reductions required by this Decree; provided, however, that nothing in this Consent Decree is intended to prohibit Defendants from:

a. Using netting reductions or emission offset credits from units that are covered by this Decree to the extent that the proposed netting reductions or emission offset credits represent the difference between the emission limits set forth in this Consent Decree and the more stringent emission limits that Defendants may elect to accept for these units in a permitting process;

b. Using netting reductions or emissions offset credits from units that are not subject to an emission limitation under this Consent Decree; and/or

c. Using netting reductions or emissions offset credits for any pollutants other than SO₂, PM, and Pb.

47. <u>Baseline Actual Emissions</u>. For the purposes of calculating baseline actual emissions as defined in the PSD or NSR rules, in any PSD, major NSR, and/or minor NSR permit or permit proceeding for either the Gateway or the Haverhill Facility, the emission rate during any 24-month period after the Effective Date selected by Defendants shall be adjusted downward to exclude any emissions that would have exceeded the SO₂ and PM limits established under Section IV.B of this Consent Decree had the Facility in question been required

29

to comply with the SO_2 and PM limits established under Section IV.B during the consecutive 24month period.

J. <u>Reporting Requirements</u>

48. Defendants shall submit, in the manner set forth in Section XIII (Notices), a semiannual progress report no later than January 31 and July 31 of each year, with the first semiannual report due on the first January 31 or July 31 that occurs more than ninety (90) Days after the Effective Date. Each semi-annual report shall contain the following information with respect to, respectively, the half-year between July 1 and December 31, or the half-year between January 1 and June 30, commencing on the Effective Date:

a. Work performed and progress made toward implementing the requirements of Section IV (Compliance Requirements), including completion of any milestones;

b. Any significant modifications to previously-submitted design specifications of any pollution control system, or to monitoring equipment, required to comply with the requirements of Section IV (Compliance Requirements);

c. Any significant problems encountered or anticipated in complying with the requirements of Section IV (Compliance Requirements), including implemented or proposed solutions;

d. A summary of the emissions monitoring and testing data collected to demonstrate compliance with a requirement of this Consent Decree;

e. All exceedances of any emission limits set forth in Section IV.B (Emission Limits) of this Consent Decree;

f. All failures to comply with the emissions minimization required by Section IV.C. of this Consent Decree;

g. All RCFA(s) required by Section IV.D (Root Cause Failure Analysis for Bypass Venting Incidents) of this Consent Decree;

h. Any updated PMO Plan required by Paragraph 37 of this Consent Decree;

i. The emissions reduction information required by Paragraph 25;

j. Status of permit applications and a summary of all permitting activity pertaining to compliance with this Consent Decree;

k. Any reports to the State of Illinois or the State of Ohio pertaining to compliance with this Consent Decree or the CAA; and

 Information required by Appendix 4 (Potential Middletown Redundant HRSG Project).

49. If Defendants have reason to believe that they have violated or may violate any requirement of this Consent Decree for which notice is not provided in Paragraph 48a.-1. above or for which a RCFA is not required pursuant to Section IV.D (Root Cause Failure Analysis for Bypass Venting Incidents), Defendants shall notify the United States, the State of Illinois, and the State of Ohio of such violation or potential violation of this Consent Decree and its duration or anticipated likely duration, in writing, within forty-five (45) Days of the Day Defendants first become aware of the violation or likely violation, with an explanation of the violation. If the cause of the violation cannot be fully explained at the time the report is due, Defendants shall so state in the report. Defendants shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Defendants of their obligation to

provide the notice required by Section VIII (Force Majeure), although notice provided pursuant to Section VIII (Force Majeure) also satisfies this Paragraph with respect to the event(s) in such notice.

50. Whenever any violation of this Consent Decree or of any applicable permits or any other event affecting Defendants' performance under this Decree, or the performance of either Facility, may pose an immediate threat to the public health or welfare or the environment, Defendants shall notify EPA and, for violations occurring at the Gateway Facility, Illinois EPA, and, for violations relating to the Haverhill Facility, Ohio EPA, orally or by electronic or facsimile transmission as soon as possible, but no later than twenty-four (24) hours after Defendants first knew or should have known that the violation or event may pose an immediate threat to the public health or welfare or the environment. This procedure is in addition to the requirements set forth in Section IV.D (Root Cause Failure Analysis for Bypass Venting Incidents), and is in addition to any other state or federal reporting requirement which may be applicable.

51. All reports shall be submitted to the persons and in the manner designated in Section XIII (Notices).

52. Each report submitted by Defendants under this Section shall be signed by a plant manager, a corporate official responsible for environmental management and compliance, or a corporate official responsible for plant engineering management of Defendants and shall include the following certification:

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This notification requirement does not apply to emergency or similar notifications where compliance would be impractical.

53. The reporting requirements of this Consent Decree do not relieve Defendants of any reporting obligations required by the CAA or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement. The reporting requirements of this Section are in addition to any other reports, plans, or submissions required by other Sections of this Consent Decree.

54. Any information provided pursuant to this Consent Decree may be used by the United States, the State of Ohio or the State of Illinois in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law. All information and documents submitted by Defendants to the United States, Illinois or Ohio pursuant to this Consent Decree shall be subject to public inspection unless identified and supported as confidential business information (CBI) in accordance with 40 C.F.R. Part 2. Under no circumstances shall emissions data be identified or considered CBI.

55. <u>Approval of Deliverables</u>. After review of any plan, report, or other item that is required to be submitted for approval pursuant to this Consent Decree, EPA, after consultation with the State of Illinois or Ohio, as appropriate, shall in writing: a) approve the submission; b) approve the submission upon specified conditions; c) approve part of the submission and disapprove the remainder; or d) disapprove the submission. If EPA has not approved or disapproved of the submission within sixty (60) Days, then Defendants may proceed to implement the plan, report, or other item.

56. If the submission is approved pursuant to Paragraph 55, Defendants shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Paragraph 55, Defendants shall, upon written direction from EPA, after consultation with the State of Illinois and/or State of Ohio, as appropriate, take all actions required by the approved plan, report, or other item that EPA, after consultation with the relevant State, determines are technically severable from any disapproved portions, subject to Defendants' right to dispute only the specified conditions or the disapproved portions under Section VIII (Dispute Resolution).

57. If the submission is disapproved in whole or in part pursuant to Paragraph 55, Defendants shall, within forty-five (45) Days of such disapproval, or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Defendants shall proceed in accordance with the preceding Paragraph.

58. Any stipulated penalties applicable to the original submission, as provided in Section VII (Stipulated Penalties), shall accrue during the 45-Day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Defendants' obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

59. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA, after consultation with the State of Illinois and/or State of Ohio, as
appropriate, may again require Defendants to correct any deficiencies, in accordance with the preceding Paragraphs, or may itself/themselves correct any deficiencies, subject to Defendants' right to invoke Dispute Resolution and the right of EPA, the State of Illinois, and the State of Ohio to seek stipulated penalties as provided in the preceding Paragraphs.

V. <u>CIVIL PENALTY</u>

60. Within thirty (30) Days after the Effective Date, Defendants shall pay the sum of \$1,270,000 as a civil penalty to the United States by FedWire Electronic Funds Transfer (EFT) to the U.S. Department of Justice in accordance with written instructions to be provided to Defendants following entry of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney's Office for the Southern District of Illinois. At the time of payment, Defendants shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States, et al. v. SunCoke Energy, Inc., et al.*, and shall reference the civil action numbers, DOJ #90-5-2-1-09890 and #90-5-2-1-10065 to the United States in the manner set forth in Section XIII (Notices); by email to acctsreceivable.CINWD@epa.gov; and by mail to:

EPA Cincinnati Finance Office 26 Martin Luther King Drive Cincinnati, Ohio 45268

61. Within thirty (30) Days of the Effective Date, Defendants shall pay a civil penalty of \$325,000 to the State of Illinois by certified check payable to the Illinois EPA for deposit into the Environmental Protection Trust Fund ("EPTF"). Payments shall be sent by first class mail and delivered to:

Illinois Environmental Protection Agency Fiscal Services 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276

Within thirty (30) Days of the Effective Date, Defendants shall make a payment of \$125,000 to the State of Illinois by certified check payable to the Illinois Attorney General's Office for deposit into the State Projects and Court Ordered Distribution Fund for subsequent expenditure as authorized by the Attorney General. Payments shall be sent by first class mail and delivered to:

> Josiah E. Small, Accounting Director Illinois Attorney General's Office 500 South Second Street Springfield, Illinois 62706

Within thirty (30) Days of the Effective Date, Defendants shall make a payment of

\$125,000 to the State of Illinois by certified check payable to the Illinois EPA for deposit into the

Special State Projects Trust Fund. Payments shall be sent by first class mail and delivered to:

Illinois Environmental Protection Agency Fiscal Services 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276

The name and case number shall appear on the face of the checks. A copy of all certified

checks and any transmittal letters shall be sent to:

Christine Zeivel Environmental Bureau Illinois Attorney General's Office 500 S. Second Street Springfield, IL 62706 62. Within thirty (30) Days of the Effective Date, Defendants shall pay a civil penalty of \$150,000 to the State of Ohio by delivering a cashier's or certified check to Ohio, c/o Martha Sexton or her successor, Paralegal, Office of the Attorney General of Ohio, Environmental Enforcement Section, 30 East Broad Street, 25th Floor, Columbus, Ohio 43215, payable to the order of "Treasurer, State of Ohio" as follows: to the Ohio EPA Division of Air Pollution Control. The memorandum portion of the check, or some other prominent location on the transmittal letter or documentation, shall include a reference to "A.G. EAGO No. 455132" and a notation that such monies are to be deposited into an account for the Division of Air Pollution Control established by Ohio Environmental Protection Agency.

63. <u>Interest</u>. If any portion of the civil penalty due to the United States is not paid when due, Defendants shall pay interest on the amount past due, accruing from the Effective Date through the date of payment, at the rate specified in 28 U.S.C. § 1961. If any portion of the civil penalty due to the State of Illinois is not paid when due, Defendants shall pay interest on the amount past due, accruing from the Effective Date through the date of payment, at the rate specified in Section 3-2 of the Illinois Uniform Penalty and Interest Act, 35 ILCS 735/3-2 (2010). If any portion of the civil penalty due to the State of Ohio is not paid when due, Defendants shall pay interest on the amount past due, accruing from the Effective Date through the date of payment, at the rate specified in R.C. 5703.47. Interest payment under this Paragraph shall be in addition to any stipulated penalty due.

64. Defendants HNCC and SunCoke shall be jointly and severally liable for payment of the civil penalties relating to the Haverhill Facility and Defendants GECC and SunCoke shall be jointly and severally liable for penalties relating to the Gateway Facility.

65. Defendants shall not deduct any penalties paid under this Decree pursuant to this Section or Section VII (Stipulated Penalties) in calculating their federal or state or local income tax.

VI. FEDERAL-ONLY SUPPLEMENTAL ENVIRONMENTAL PROJECT

66. In accordance with the requirements and schedule set forth in this Section VI, Defendants shall spend no less than \$255,000 to implement the following federal-only Supplemental Environmental Project ("SEP"), designed to protect families from lead-based paint hazards by addressing such hazards in a number of residential properties in Madison and St. Clair Counties, Illinois as further described herein ("Lead Hazard Reduction SEP"). The Lead Hazard Reduction SEP will entail reducing hazards presented by lead in owner-occupied lowincome residences whose occupants are unable to afford such lead hazard reduction work, with priority given to families with young children and/or pregnant women.

67. Defendants shall complete the Lead Hazard Reduction SEP by contracting with an entity that is experienced in conducting lead-based paint hazard reduction work, including, where window replacement is necessary, using energy efficient windows that meet EPA Energy Star criteria. Defendants shall conduct the SEP according to all applicable federal and state work practice and notification requirements including, but not limited to, the United States Department of Housing and Urban Development's ("HUD's") Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing and Illinois requirements. "Eligible costs" shall include all, but only those costs of conducting lead hazard reduction work in compliance with the HUD Guidelines, such as family relocation costs, lead inspections/risk assessments, remediation and clearance, purchase of materials, and associated costs allowed by HUD Guidelines, except that up to ten percent of total costs billed by the contractor retained by Defendants may be overhead costs yet still be considered "eligible costs." Defendants shall complete the Lead Hazard Reduction SEP within two years after the Effective Date, provided that this date may be extended by mutual agreement of the Defendants and the United States in writing.

68. With regard to the Lead Hazard Reduction SEP, Defendants certify the truth and accuracy of each of the following:

a. that, as of the date of executing this Decree, Defendants are not required to perform or develop the SEP by any federal, state, or local law or regulation and is not required to perform or develop the SEP by agreement, grant, or as injunctive relief awarded in any other action in any forum;

b. that the Lead Hazard Reduction SEP is not a project that Defendants were planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this Decree;

c. that Defendants have not received and will not receive credit for the SEP in any other enforcement action;

d. that Defendants will not receive any reimbursement for any portion of the SEP from any other person; and

e. Defendants SunCoke Energy and GECC will certify as follows in the SEP

Completion Report:

I certify that I am not a party to any open federal financial assistance transaction that is funding or could be used to fund the same activity as the SEP. I further certify that, to the best of my knowledge and belief after reasonable inquiry, there is no such open federal financial assistance transaction that is funding or could be used to fund the same activity as the SEP, nor has the same activity been described in an unsuccessful federal financial assistance transaction proposal to EPA within two years of the date of this settlement (unless the project was barred from funding as statutorily ineligible). For purposes of this certification, the term "open federal financial assistance" refers to a grant, cooperative agreement, loan, federally-guaranteed loan guarantee, or other mechanism for providing federal financial assistance whose performance period has not yet expired.

69. <u>SEP Completion Report</u>. Within thirty (30) Days after the date set for completion of the Lead Hazard Reduction SEP, Defendants shall submit a SEP Completion Report to the United States in accordance with Section XIII (Notices). The SEP Completion Report shall contain the following information:

a. a detailed description of the Lead Hazard Reduction SEP as implemented;

b. a description of any problems encountered in completing the SEP and the solutions thereto;

c. an itemized list of all eligible SEP costs expended;

d. certification that the Lead Hazard Reduction SEP has been fully implemented pursuant to the provisions of this Decree; and

e. a description of the environmental and public health benefits resulting from implementation of the SEP (with a quantification of the benefits and pollutant reductions, if feasible).

70. EPA may, in its sole discretion, require information in addition to that described in the preceding Paragraph, in order to evaluate the SEP Completion Report.

71. After receiving the SEP Completion Report, the United States shall notify Defendants whether or not Defendants have satisfactorily completed the Lead Hazard Reduction SEP. If Defendant has not completed the SEP in accordance with this Consent Decree, stipulated penalties may be assessed under Section VII (Stipulated Penalties). 72. Disputes concerning the satisfactory performance of the Lead Hazard Reduction SEP and the amount of eligible SEP costs may be resolved under Section IX (Dispute Resolution).

73. Each submission required under this Section shall be signed by an official with knowledge of the Lead Hazard Reduction SEP and shall bear the certification language set forth in Paragraph 52.

74. Any public statement, oral or written, in print, film, or other media, made by Defendant making reference to the SEP under this Decree shall include the following language: "This project was undertaken in connection with the settlement of an enforcement action, *United States v. SunCoke Energy, Inc.*, taken on behalf of the U.S. Environmental Protection Agency under the Clean Air Act."

75. For federal income tax purposes, Defendant agrees that it will neither capitalize into inventory or basis nor deduct any costs or expenditures incurred in performing the SEP.

VII. STIPULATED PENALTIES

76. Defendants shall be liable for stipulated penalties to the United States, and to the State of Illinois (for the Gateway Facility) and the State of Ohio (for the Haverhill Facility) for violations of this Consent Decree as specified below, unless excused under Section VIII (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree.

77. <u>Late Payment of Civil Penalty</u>. If Defendants fail to pay the civil penalties required to be paid under Section V (Civil Penalty) when due, Defendants shall pay a stipulated penalty of \$1,000 per Day for each Day that the payment is late.

78. For each day of failure to install a Redundant HRSG at any Affected Coke Oven Battery in accordance with Section IV.A (Redundant HRSG Project):

Period of Delay	Penalty per Day
1 st -30 th Day after deadline	\$1,250
31 st -60 th Day after deadline	\$3,000
Beyond 60 th Day after deadline	\$5,000 or an amount equal to 1.2 times the economic benefit of delayed compliance, whichever is greater

79. For each day that any of the emission limits established as a Rolling 12-Month or Rolling 24-Month Limit under Section IV.B is violated, the following stipulated penalties will apply: \$1,250 for each Day on which the applicable rolling emission limit is exceeded.

80. For each day that any of the emission limits established as pounds/hour under Section IV.B is violated, the following stipulated penalties will apply: \$1,250 for each Day in which the average exceeds any and all of such emission limits.

81. For each failure to perform a stack test required by Paragraph 29 during Scheduled FGD Maintenance of more than two (2) Days: \$37,500.

82. For each violation of any approved plan or schedule, or failure to submit plans or schedules, reporting requirements, performance testing requirements, emissions monitoring requirements, or permit applications as required, the following stipulated penalties will apply:

Period of Non-Compliance	Penalty per Day
1 st -30 th Day after deadline	\$500

31st-60th Day after deadline\$1,500Beyond 60th Day after deadline\$2,000

83. The stipulated penalty provisions of this Section VII shall apply to any Bypass Venting Incident at an Affected Coke Oven Battery for which the Root Cause was one or more of the following acts, omissions, or events:

a. Error resulting from careless operation by the personnel charged with the responsibility for the Coke Oven Battery, HRSG, or pollution control systems;

b. Failure to follow written procedures; or

c. A failure of a part, equipment or system that is due to a failure by Defendants to operate and maintain that part, equipment or system in a manner consistent with good engineering practices.

84. If the Bypass Venting Incident is not a result of one of the root causes identified in Paragraph 83, but is the result of any of the root causes identified in Paragraph 20.d, the stipulated penalty provisions of this Section VII (Stipulated Penalties) shall not apply.

85. If the Bypass Venting Incident is not a result of one of the root causes identified in Paragraphs 83 and 84, then the stipulated penalty provisions of this Section VII shall apply if:

a. Defendants failed to act in a manner consistent with the Preventative Maintenance and Operation (PMO) Plan and/or to take any action during the Bypass Venting Incident to limit the duration and/or quantity of SO₂ emissions associated with such Bypass Venting Incident; or

b. With respect to any of the Defendants' Affected Coke Oven Batteries, the total number of Bypass Venting Incidents in a rolling twelve (12) month period exceeds three (3).

86. With respect to any Bypass Venting Incident not identified in Paragraphs 83, 84, and 85 above, the following provisions shall apply:

a. <u>Agreed Upon Malfunction</u>: If EPA has affirmatively, and not by default, agreed that the Root Cause of the Bypass Venting Incident was sudden, infrequent, and not reasonably preventable through the exercise of good engineering practices, then that cause shall be designated as an agreed-upon Malfunction for purposes of reviewing subsequent Bypass Venting Incidents, and the stipulated penalty provisions of this Section VII shall not apply.

b. <u>First Time</u>: If the Root Cause of the Bypass Venting Incident was sudden and infrequent but reasonably preventable through the exercise of good engineering practices, then Defendants shall implement corrective action(s) pursuant to Paragraph 21 and the stipulated penalty provisions of this Section VII (Stipulated Penalties) shall not apply.

c. <u>Recurrence</u>: If the Root Cause of the Bypass Venting Incident is a recurrence of the same Root Cause that caused a previous Bypass Venting Incident occurring after the Effective Date, then the stipulated penalty provisions of this Section VII (Stipulated Penalties) shall apply unless either the Root Cause of the previous Bypass Venting Incident was designated as an Agreed Upon Malfunction under Paragraph 86.a, or Defendants were in the process of timely developing or implementing a corrective action plan under Paragraph 21 for such previous Bypass Venting Incident.

87. <u>Defenses</u>: Defendants may raise the following affirmative defenses in response to a demand by the United States, Illinois, or Ohio for stipulated penalties:

a. Force majeure as determined pursuant to Section VIII (Force Majeure).

b. As to any Bypass Venting Incident, the Bypass Venting Incident could not have been prevented through the exercise of good engineering practices in a manner consistent with safety and good air pollution control practices for minimizing emissions.

88. If Defendants fail to implement the SEP, or halt or abandon work on the SEP, Defendants shall pay a stipulated penalty to the United States equal to the difference between \$255,000 and the amount expended as demonstrated in the certified cost reports in satisfactory performance of the Lead Reduction SEP, plus \$25,000. The penalty under this Paragraph shall accrue as of the date specified for completing the SEP or the date performance ceases, whichever is earlier.

89. Defendants shall either pay stipulated penalties within thirty (30) Days after receipt of a written demand by the United States, Illinois, or Ohio or shall initiate dispute resolution pursuant to Section IX (Dispute Resolution).

90. <u>Waiver of Payment</u>. The United States, Illinois, or Ohio may, in its unreviewable discretion, waive payment of any portion or all of the stipulated penalties that may be due to either of them under this Consent Decree. Where only one sovereign demands stipulated penalties for a violation, and the other sovereign or sovereigns do not join in the demand within ten (10) Days of receiving the demand, or timely join(s) in the demand but subsequently elect(s) to waive or reduce stipulated penalties for that violation, Defendants shall pay the full stipulated penalties due for the violation to the sovereign(s) making the demand less any amount paid to the other sovereign(s).

91. <u>Demand for Stipulated Penalties</u>. A written demand for the payment of stipulated penalties will identify the particular violation(s) to which the stipulated penalty relates; the stipulated penalty amount that the United States, Illinois and/or Ohio is demanding for each

violation (as can be best estimated); the calculation method underlying the demand; and the grounds upon which the demand is based. The Party making a demand for payment of a stipulated penalty shall simultaneously send a copy of the demand to the other applicable Party.

92. <u>Stipulated Penalties' Accrual</u>. Stipulated penalties will begin to accrue on the Day after performance is due or the day a violation occurs, whichever is applicable, and will continue to accrue until performance is satisfactorily completed or the violation ceases, whichever is applicable. Except for violations of the Rolling 12-Month or Rolling 24-Month Limit and the pounds/hour limit (where stipulated penalties are based on emission exceedances of all pollutants), stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

93. <u>Stipulated Penalties Payment Due Date</u>. Stipulated penalties shall be paid no later than thirty (30) Days after receipt of a written demand by the United States, Illinois, or Ohio unless the demand subject to Section IX (Dispute Resolution). For the Gateway Facility, Defendants shall pay fifty percent of the total stipulated penalty amount due to the United States and fifty percent to the State of Illinois; for the Haverhill Facility, Defendants shall pay fifty percent of the total stipulated penalty amount due to the United States and fifty percent to the State of Ohio. For violations relating to both the Gateway Facility and Haverhill Facility, the stipulated penalty amount shall be split evenly between the United States, Illinois, and Ohio.

94. <u>Manner of Payment of Stipulated Penalties</u>. Stipulated penalties owing to the United States of under \$10,000 will be paid by check and made payable to "U.S. Department of Justice," referencing DOJ #90-5-2-1-09890 and #90-5-2-1-10065, and delivered to the Financial Litigation Unit of the U.S. Attorney's Office for the Southern District of Illinois. Stipulated penalties owing to the United States of \$10,000 or more and all stipulated penalties owing to the State of Ohio will be paid in the manner set forth in Section V (Civil Penalty). All stipulated penalties owing to the State of Illinois will be paid by certified check payable to the Illinois EPA for deposit into the Environmental Protection Trust Fund ("EPTF"). Payments shall be sent by first class mail and delivered to:

Illinois Environmental Protection Agency Fiscal Services 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276

All transmittal correspondence shall state that the payment is for stipulated penalties, shall identify the violations to which the payment relates, and shall include the same identifying information required by this Section.

95. <u>Disputes over Stipulated Penalties</u>. Stipulated penalties shall continue to accrue as provided in Paragraph 92, during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA, Illinois, or Ohio that is not appealed to the Court, Defendants shall pay accrued penalties determined to be owing, together with interest, to the United States, Illinois, and/or Ohio, as applicable, within thirty (30) Days of the effective date of the agreement or the receipt of EPA's, Illinois', or Ohio's decision or order.

b. If the dispute is appealed to the Court and the United States, Illinois, or Ohio prevails in whole or in part, Defendants shall pay all accrued penalties determined by the Court to be owing, together with interest, within sixty (60) Days of receiving the Court's decision or order, except as provided in subparagraph c, below.

c. If any Party appeals the District Court's decision, Defendants shall pay all accrued penalties determined to be owing, together with interest, within fifteen (15) Days of receiving the final appellate court decision.

96. No amount of the stipulated penalties paid by Defendants shall be used to reduce its federal or state tax obligations.

97. If Defendants fail to pay stipulated penalties required by this Consent Decree, Defendants shall be liable for interest on such penalties at the rates specified in Paragraph 63, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States, Illinois, or Ohio from seeking any remedy otherwise provided by law for Defendants' failure to pay any stipulated penalties.

98. Subject to the provisions of Section XI (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Decree shall be in addition to any other rights, remedies, or sanctions available to the United States, Illinois, or Ohio for a violation of this Consent Decree or applicable law. If the violations result in excess emissions, then the United States and Illinois or Ohio, as applicable, may elect to seek compensatory emissions reductions equal to or greater than the excess amounts emitted in addition to injunctive relief or stipulated penalties; provided, however, that with respect to penalties and compensatory emissions reductions for Bypass Venting that occurs prior to the installation of the Redundant HRSGs, the United States, Illinois and Ohio agree not to file a new action for such penalties and/or emissions reductions, but may only seek stipulated penalties pursuant to Section VII (Stipulated Penalties). Where only one sovereign demands stipulated penalties for a violation, and the other sovereign or sovereigns do not join in the demand within ten (10) Days of receiving the demand, or timely join in the demand but subsequently elect to waive or reduce stipulated

penalties for that violation, Defendants shall pay the full stipulated penalties due for the violation to the sovereign(s) making the demand less any amount paid to the other sovereign(s).

VIII. FORCE MAJEURE

99. "Force Majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Defendants, of any entity controlled by Defendants, or of Defendants' contractors, which delays or prevents the performance of any obligation under this Consent Decree despite Defendants' best efforts to fulfill the obligation. The requirement that Defendants exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay to the greatest extent possible. "Force Majeure" does not include Defendants' financial inability to perform any obligation under this Consent Decree.

100. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, Defendants shall provide notice orally or by electronic mail or facsimile transmission to the EPA and, for events relating to the Gateway Facility, Illinois, and, for events relating to the Haverhill Facility, Ohio, within seventy-two (72) hours of when Defendants first knew that the event might cause a delay. Within seven (7) Days thereafter, Defendants shall provide in writing to EPA and Illinois or Ohio, as applicable, an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Defendants' rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of

Defendants, such event may cause or contribute to an endangerment to public health, welfare or the environment. Defendants shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Defendants from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failures. Defendants shall be deemed to know of any circumstance of which Defendants, any entity controlled by Defendants, or Defendants' contractors knew or should have known.

101. If EPA, after a reasonable opportunity for review and comment by Illinois or Ohio, as applicable, agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA, after a reasonable opportunity for review and comment by Illinois or Ohio, as applicable, for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify Defendants in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

102. If EPA, after a reasonable opportunity for review and comment by Illinois or Ohio, as applicable, does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Defendants in writing of its decision.

103. If Defendants elect to invoke the dispute resolution procedures set forth in Section IX (Dispute Resolution), it shall do so no later than fifteen (15) Days after receipt of EPA's notice. In any such proceeding, Defendants shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a

force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Defendants complied with the requirements of Paragraphs 99 and 100 above. If Defendants carry this burden, the delay at issue shall be deemed not to be a violation by Defendants of the affected obligation of this Consent Decree identified to EPA and the Court.

IX. **DISPUTE RESOLUTION**

104. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. Defendants' failure to seek resolution of a dispute under this Section shall preclude Defendants from raising any such issue as a defense to an action by the United States, Illinois, or Ohio to enforce any obligation of Defendants arising under this Decree.

105. <u>Informal Dispute Resolution</u>. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Defendants send the United States, Ohio and Illinois a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed ninety (90) Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the United States, Illinois or Ohio, as applicable, shall provide Defendants with a written summary of its position regarding the dispute. The position advanced by the United States, Illinois, or Ohio, as applicable, shall be considered binding unless, within fortyfive (45) Days of Defendants' receipt of the written Summary of the United States' or Illinois' or Ohio's position, Defendants file with the Court a petition that describes the nature of the dispute.

106. <u>Formal Dispute Resolution</u>. Defendants shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States, Illinois, and Ohio and filing with the Court a petition regarding the matter in dispute. The Petition shall include, but need not be limited to, any factual data, analysis, or opinion supporting Defendants' position and any supporting documentation relied upon by Defendants.

107. The United States, or Illinois or Ohio, as applicable, shall serve its response to Defendants' petition within forty-five (45) Days of receipt of Defendants' petition. The United States' Statement of Position, or Illinois' or Ohio's Statement of Position, as applicable, will include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States, or Illinois, or Ohio, as applicable.

108. <u>Standard of Review</u>. In any dispute under this Section IX (Dispute Resolution), Defendants shall bear the burden of proof pursuant to applicable principles of law.

109. The invocation of dispute resolution procedures under this Section IX (Dispute Resolution) shall not, by itself, extend, postpone, or affect in any way any obligation of Defendants under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute. If Defendants do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section VII (Stipulated Penalties).

X. **INFORMATION COLLECTION AND RETENTION**

111.

110. The United States, Illinois, and Ohio, and their representatives, including attorneys, contractors, and consultants, shall have the right of entry into the Facility, at all reasonable times, upon presentation of credentials, to:

> monitor the progress of activities required under this Consent Decree; a.

verify any data or information submitted to the United States, Illinois or b. Ohio in accordance with the terms of this Consent Decree;

obtain samples and, upon request, splits of any samples taken by c. Defendants or their representatives, contractors, or consultants in connection with their performance under this Consent Decree;

d. obtain documentary evidence, including photographs and similar data, relevant to compliance with the terms of this Consent Decree; and

> assess Defendants' compliance with this Consent Decree. e.

Until at least three (3) years after the termination of this Consent Decree, Defendants shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information in electronic form in its or its contractors' or agents' possession or control, or that come into their or their contractors' or agents' possession or control, and that relates in any manner to Defendants' performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this informationretention period, the United States, Illinois, or Ohio may request copies of any documents, records, or other information required to be maintained under this Paragraph. For the purposes of this Paragraph, outside counsel is not a contractor or agent.

112. At the conclusion of the information retention period specified in the preceding Paragraph, Defendants shall notify the United States, Illinois, and Ohio at least ninety (90) Days prior to destroying any document(s), record(s), or other information subject to the requirements of the preceding Paragraph and, upon request by the United States, Illinois or Ohio, Defendants shall deliver any such document(s), record(s), or other information to the Plaintiffs. Defendants may assert that certain documents, records, or other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Defendants assert such a privilege, they shall provide the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Defendants. However, no documents, records, data, or other information required to be generated by this Consent Decree shall be withheld on grounds of privilege.

113. Defendants may also assert that information required to be provided under this Section is protected as CBI under 40 C.F.R. Part 2. As to any information that Defendants seek to protect as CBI, Defendants shall follow the procedures set forth in 40 C.F.R. Part 2.

114. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States, Illinois, or Ohio pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Defendants to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XI. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

115. This Consent Decree resolves the civil claims of the United States, the State of Illinois and the State of Ohio through the Date of Lodging for the violations alleged in the Complaint filed in this action, and the violations alleged in the Notices of Violation relating to the Gateway and Haverhill facilities sent to Defendants by EPA, Illinois EPA, and Ohio EPA prior to the Date of Lodging referenced in Appendix 3. This Consent Decree also resolves the civil claims of the United States, Illinois and Ohio for the regulatory and permit provisions for which violations are alleged in the Complaint resulting from Defendants' performance of the requirements set forth in Section IV.A (Redundant HRSG Project), conditioned upon satisfactory performance of the requirements set forth therein. Provided that Defendants perform the requirements of Section IV.A (Redundant HRSG Project) at the Middletown Facility, the Consent Decree would then resolve the civil claims of the United States and the State of Ohio for emissions violations during the time period of and resulting from Defendants' performance of the requirements set forth in Section IV.A (Redundant HRSG Project) at the Middletown Facility, conditioned upon satisfactory performance of such requirements.

116. The United States and the States of Illinois and Ohio reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraph 115. This Consent Decree shall not be construed to limit the rights of the United States, Illinois or Ohio to obtain penalties or injunctive relief under the CAA or implementing regulations, or under other federal or state laws, regulations, or permit conditions, except as expressly specified in Paragraph 115. The United States, Illinois and Ohio further reserve all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, the Facilities, whether related to the violations addressed in this Consent Decree or otherwise. The United States and Ohio further reserve all civil claims relating to the Middletown Facility for any violations of the CAA or Chapter 3704 of the Ohio Revised Code prior to the Date of Lodging and any violations following the Date of Lodging, except as expressly stated in Paragraph 115.

117. In any subsequent administrative or judicial proceeding initiated by the United States, Illinois or Ohio for injunctive relief, civil penalties, other appropriate relief relating to the Facilities or Defendants' violations, Defendants shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States, Illinois or Ohio in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 115 of this Decree. Except as set forth in this Paragraph, the United States, Illinois and Ohio may not assert or maintain that this Consent Decree constitutes a waiver or determination of, or otherwise obviates, any claim or defense whatsoever, or that this Consent Decree constitutes acceptance by Defendants of any interpretation of guidance issued by EPA, Illinois EPA, or Ohio EPA related to the matters addressed in this Consent Decree.

118. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Nothing in this Consent Decree alters, amends, or restricts the ability of any federal, State, or local permitting authority to issue permits, including permits applied for pursuant to Section IV (Compliance Requirements), in a manner consistent with applicable law and guidance. Defendants are responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits;

and Defendants' compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States, Illinois and Ohio do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Defendants' compliance with any aspect of this Consent Decree will result in compliance with provisions of the CAA, or with any other provisions of federal, State, or local laws, regulations, permits, or future permitting requirements.

119. Except as otherwise provided by law, this Consent Decree does not limit or affect the rights of Defendants, the United States, Illinois or Ohio against any third parties not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against Defendants.

120. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not a party to this Consent Decree.

XII. COSTS

121. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States, Illinois and Ohio shall be entitled to collect the costs (including attorneys' fees), against Defendants incurred in any action necessary to collect (a) any portion of the civil penalty or (b) any stipulated penalties due that were not paid by Defendants, subject to Defendants' right to invoke dispute resolution pursuant to Section IX (Dispute Resolution).

XIII. NOTICES

122. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed to the (i) United States Department of Justice; (ii) EPA; (iii) the State of Illinois (for

the Gateway Facility); and (iv) the State of Ohio (for the Haverhill Facility). The contact information for the parties to the Consent Decree is set forth in Attachment A.

123. Any Party may, by written notice to the other Parties, change its designated notice recipient(s) or notice address(es) provided in Attachment A. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XIV. <u>EFFECTIVE DATE</u>

124. The Effective Date of this Consent Decree shall be the date this Consent Decree is entered by the Court, or a motion to enter is granted, whichever occurs first, as recorded on the Court's docket.

XV. <u>RETENTION OF JURISDICTION</u>

125. The Court shall retain jurisdiction over this case until termination of this Consent Decree for the purpose of resolving disputes arising under this Decree pursuant to Section IX (Dispute Resolution), or entering orders modifying this Decree pursuant to Section XVI (Modification), or effectuating or enforcing compliance with the terms of this Decree.

126. Any disputes concerning modification of this Decree, including any attached appendices, shall be resolved pursuant to Section IX (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 108, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XVI. MODIFICATION

127. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by the United States, Illinois, Ohio and Defendants. Where the modification

constitutes a material change to any term of this Consent Decree, it shall be effective only upon approval by the Court.

XVII. <u>TERMINATION</u>

128. This Consent Decree shall be subject to termination upon motion by the United States or Defendants under the conditions identified in this Section XVII (Termination). Defendants may seek termination of this Consent Decree for any one of the Facilities upon either (1) completion and satisfaction at the Facility of all of the following requirements of this Paragraph, or (2) any time after the permanent shutdown of, and relinquishment of all operating permits for, such Facility, provided that Defendants have complied with the requirements of subparagraph c below of this Paragraph.

a. Installation of the Redundant HRSGs as specified in this Consent Decree;

b. Compliance with all provisions contained in this Consent Decree, which compliance may be established for specific parts of the Consent Decree in accordance with Paragraph 129, below;

c. Payment of all penalties and other monetary obligations due under the terms of the Consent Decree; no penalties or other monetary obligations due hereunder can be outstanding or owed to the United States, Illinois, or Ohio;

d. Receipt of permits incorporating the emission limits and standards established under Section IV.I (Permit Requirements); and

e. Operation for at least twenty-four (24) months in compliance with the emission limits established in Paragraph 17, and certification of such compliance submitted following the conclusion of the compliance period.

129. Certification of Completion.

a. Prior to moving for termination, Defendants shall certify completion for each Facility, provided that all of the related requirements for that Facility have been satisfied.

b. Defendants shall submit a written report to the United States, and, for the Gateway Facility, Illinois, and for the Haverhill Facility, Ohio describing the activities undertaken and certifying that the Redundant HRSGs are fully operational and satisfy the requirements of this Consent Decree, and that Defendants are in substantial and material compliance with all of the other requirements of the Consent Decree. The report shall contain the following statement, signed by a responsible corporate official of Defendants:

To the best of my knowledge, after appropriate investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

c. Upon receipt of Defendants' certification, EPA, after reasonable

opportunity for review and comment by Illinois and Ohio, as applicable, shall notify Defendants whether the requirements set forth in the applicable Paragraphs have been completed in accordance with this Consent Decree. The Parties recognize that ongoing obligations under such Paragraphs remain and necessarily continue (*e.g.*, reporting and record keeping requirements), and that Defendants' certification is that they are in current compliance with all such obligations.

(i). If EPA, after consultation with Illinois and Ohio, as appropriate,

concludes that the requirements have not been fully complied with, EPA shall notify Defendants as to the activities that must be undertaken to complete the applicable Paragraphs of the Consent Decree. Defendants shall perform all activities described in the notice, subject to their right to invoke the dispute resolution procedures set forth in Section IX (Dispute Resolution). (ii). If EPA, after consultation with Illinois and Ohio, as appropriate, concludes that the requirements of the applicable Paragraphs have been completed in accordance with this Consent Decree, EPA will so notify Defendants in writing. This shall constitute the certification of completion of the applicable Paragraphs for purposes of this Consent Decree.

d. Nothing in this Paragraph shall preclude the United States, Illinois or Ohio
from seeking stipulated penalties for a violation of any of the requirements of the Consent
Decree regardless of whether a Certification of Completion has been issued under this Paragraph.
In addition, nothing in this Paragraph shall permit Defendants to fail to implement any ongoing
obligations under the Consent Decree regardless of whether a Certification of Completion has

130. At such time as Defendants believe that they have satisfied the requirements for termination set forth in this Section, Defendants shall certify such compliance and completion to the United States, Illinois (for the Gateway Facility), and Ohio (for the Haverhill Facility) in writing. Unless, within one hundred and twenty (120) Days of receipt of Defendants' certification under Paragraph 129, either the United States, Illinois, or Ohio objects in writing with specific reasons, the Court may upon motion by Defendants order that this Consent Decree be terminated. If the United States, Illinois or Ohio objects to the certification by Defendants, then the matter shall be submitted to the Court for resolution under Section IX (Dispute Resolution). In such case, Defendants shall bear the burden of proving that this Consent Decree should be terminated.

XVIII. PUBLIC PARTICIPATION

131. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United

States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Defendants consent to entry of this Consent Decree without further notice. Defendants agree not to oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified Defendants in writing that it no longer supports entry of the Decree.

XIX. SIGNATORIES/SERVICE

132. Each undersigned representative of Defendants, the State of Illinois, the State of Ohio and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice (or his or her designee) certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

133. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis.

134. Defendants agree to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XX. INTEGRATION

135. This Consent Decree and its Appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Decree and its Appendices and supersede all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. No other

document, except for any plans or other deliverables that are submitted and approved pursuant to this Decree, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Decree or the settlement it represents, and no such extrinsic document or statement of any kind shall be used in construing the terms of this Decree.

XXI. FINAL JUDGMENT

136. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court in this action as to the United States, the State of Illinois, the State of Ohio, and Defendants. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

XXII. <u>APPENDICES</u>

137. The following appendices are attached to and part of the Consent Decree:

Appendix 1 – HRSG Work Plan

Appendix 2 – Flue Gas Flow Rate Study

Appendix 3 – List of Notices of Violation

Appendix 4 – Potential Middletown Redundant HRSG Project

DATED this ______ day of ______, 2013.

UNITED STATES DISTRICT JUDGE SOUTHERN DISTRICT OF ILLINOIS

Signature Page for United States, et al. v. Haverhill Coke Company LLC, et al. Consent Decree FOR PLAINTIFF UNITED STATES OF AMERICA:

Date: 6

ROBERT G. DREHER Acting Assistant Attorney General Environment & Natural Resources Division United States Department of Justice

Date: 6/23/13

CATHERINE BANERJEE ROJKO Senior Attorney NIGEL B. COONEY Trial Attorney Environmental Enforcement Section Environment & Natural Resources Division United States Department of Justice P.O. Box 7611, Ben Franklin Station Washington, D.C. 20044-7611 Telephone: 202-514-3145

STEPHEN R. WIGGINGTON United States Attorney

J. CHRISTOPHER MOORE

Assistant United States Attorney United States Attorney's Office Nine Executive Drive Fairview Heights, IL 62208-1344 Telephone: (618) 628-3700

JUN 1 2 2013

Signature Page for United States, et al. v. Haverhill Coke Company LLC, et al. Consent Decree

FOR PLAINTIFF UNITED STATES OF AMERICA: U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 5

Date: June 12, 2013

- +/___

SUSAN HEDMAN Regional Administrator U.S. Environmental Protection Agency Region 5

Date: Jon 7, 2013

Date: 10 5, 2013

Date: June 6, 2013

Robert A. KAPLAN

ROBERT A. KAPLAN Regional Counsel U.S. Environmental Protection Agency Region 5

JOSE C. DE LEON Associate Regional Counsel U.S. Environmental Protection Agency Region 5 (C-14J) 77 West Jackson Blvd. Chicago, IL 60604

M

JAMES MORRIS Associate Regional Counsel U.S. Environmental Protection Agency Region 5 (C-14J) 77 West Jackson Blvd. Chicago, IL 60604

Signature Page for United States, et al. v. Haverhill Coke Company LLC, et al. Consent Decree

FOR PLAINTIFF UNITED STATES OF AMERICA: U.S. ENVIRONMENTAL PROTECTION AGENCY OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE

Date: 6 13 13

Date: 6/13/13

Date: 6/9/2013

Date: _

CYNTHIA J. GILES

Assistant Administrator Office of Enforcement and Compliance Assurance U.S. Environmental Protection Agency

SUSAN SHINKMAN Director, Office of Civil Enforcement Office of Enforcement and Compliance Assurance U.S. Environmental Protection Agency

PHILLIP A. BROOKS

Director, Air Enforcement Division Office of Civil Enforcement Office of Enforcement and Compliance Assurance U.S. Environmental Protection Agency

TERESA DYKES Air Enforcement Division Office of Civil Enforcement Office of Enforcement and Compliance Assurance U.S. Environmental Protection Agency

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 69 of 119 Page ID #902

Signature Page for United States, et al. v. Haverhill Coke Company LLC, et al. Consent Decree

FOR PLAINTIFF STATE OF ILLINOIS:

PEOPLE OF THE STATE OF ILLINOIS ex rel. LISA MADIGAN, Attorney General of the State of Illinois

MATTHEW J. DUNN, Chief Environmental Enforcement/ Asbestos Litigation Division

Date: 6/14/13

Date: 6/14/13

THOMAS DAVIS Assistant Attorney General Environmental Enforcement Bureau, Chief 500 S. Second Street Springfield, IL 62706

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

JOHN J. KIM Chief Legal Counsel 1021 North Grand Avenue East Springfield, IL 62794 Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 70 of 119 Page ID #903

Signature Page for United States, et al. v. Haverhill Coke Company LLC, et al. Consent Decree

FOR PLAINTIFF STATE OF OHIO:

MICHAEL DEWINE Ohio Attorney General

Date: 6/17/13

ELIZABET HEWING

Assistant Attorney General Environmental Enforcement Section 30 E. Broad St., 25th Floor Columbus, Ohio 43215

Signature Page for United States, et al. v. Haverhill Coke Company LLC, et al. Consent Decree

FOR DEFENDANTS HAVERHILL NORTH COKE COMPANY, GATEWAY ENERGY & COKE COMPANY, LLC, and SUNCOKE ENERGY, INC.

Date: May 31, 2013

Michael J. Thomson, President and Chief Operating Officer SunCoke Energy. Inc. 1011 Warrenville Rd. Suite 600 Lisle, IL 60532 mjthomson@suncoke.com

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 72 of 119 Page ID #905

ATTACHMENT A

Contact Information for the Parties to U.S. v. SunCoke Energy, Inc.

Notice or submission to the United States:

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, DC 20044-7611 Re: DOJ No. 90-5-2-1-06944/1

Notice or submission to EPA:

Air Enforcement Division Director U.S. Environmental Protection Agency Office of Civil Enforcement Air Enforcement Division U.S. Environmental Protection Agency 1200 Pennsylvania Ave, NW Mail Code: 2242A Washington, DC 20460

and

Gina Harrison U.S. Environmental Protection Agency Region 5 AE-17J 77 West Jackson Blvd. Chicago, IL 60604

Including an electronic copy to:

harrison.gina@epa.gov

and

Jose C. de Leon U.S. Environmental Protection Agency Region 5 C-14J 77 West Jackson Blvd. Chicago, IL 60640
Including an electronic copy to:

deleon.jose@epa.gov

and

James Morris U.S. Environmental Protection Agency Region 5 C-14J 77 West Jackson Blvd. Chicago, IL 60604

Including an electronic copy to:

morris.james@epa.gov

Notice or submission to the State of Illinois:

Christine Zeivel Environmental Bureau Illinois Attorney General's Office 500 S. Second Street Springfield, IL 62706

and

Chris Pressnall Division of Legal Counsel Illinois Environmental Protection Agency 1021 North Grand Avenue East Springfield, IL 62794-9276

and

Manager, Compliance Section Bureau of Air Illinois Environmental Protection Agency 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276 Notice or submission to the State of Ohio:

Ohio Environmental Protection Agency Division of Air Pollution Control, Central Office 50 W. Town Street Suite 700 Columbus, Ohio 43216-1049 Attention: Bruce Weinberg

Ohio Attorney General's Office Environmental Enforcement Section 30 East Broad Street, 25th Floor Columbus, Ohio 43215 Attention: Samuel Peterson and Elizabeth Ewing

Portsmouth Local Air Agency 605 Washington Street, Third Floor Portsmouth, Ohio 45662 Attention: Cindy Charles

Notice or submission to Defendants:

Robert Brager Beveridge & Diamond, P.C. 201 N. Charles St. Suite 2210 Baltimore Md., 21201 rbrager@bdlaw.com

and

Katherine Gates, Senior HES Counsel SunCoke Energy, Inc. 1011 Warrenville Rd., Ste. 600 Lisle, IL 60532 ktgates@suncoke.com

Denise R. Cade Senior Vice President and General Counsel SunCoke Energy, Inc. 1011 Warrenville Rd., Ste. 600 Lisle, IL 60532 drcade@suncoke.com

<u>Appendix 1</u> <u>Work Plan for Redundant Heat Recovery Steam Generators Project</u>

Defendants shall implement the work plan for the Redundant HRSG Project ("Work Plan") in accordance with Section IV.A of the Consent Decree and the requirements and schedules set forth in this Appendix 1.

Objectives

The objective of the Redundant HRSG Project is to meet the obligations set forth in Section IV (Compliance Requirements) of the Consent Decree relating to the Redundant HRSG Project for phases 1 and 2 of the Haverhill facility (HNCC No. 1 and HNCC No. 2, respectively) and the Gateway facility (GECC Battery).

The purpose of the Redundant HRSG Project is to enable each battery to have any one of the existing HRSGs be taken out of service without the need to vent. To accomplish this objective, Defendants shall add a new, redundant 20-oven HRSG at HNCC No. 1, HNCC No. 2, and the GECC Battery, respectively, along with the ducting and inter-connections to permit any one HRSG to be shut down for maintenance without significant venting through the bypass stack.

A series of planned shutdowns will be required to install tie-ins to minimize interruptions to operations during the installation of the new components for the Redundant HRSG Project.

Project Description

HNCC No. 2 – On-Line 27 months after the Effective Date HNCC No. 1 – On-Line 51 months after the Effective Date GECC Battery – On-Line 51 months after the Effective Date

Each coke oven block sends its combined hot flue gas to HRSGs for heat recovery. The HRSGs vent into a common duct that feeds a flue gas desulfurization unit (FGD).

The Redundant HRSG Project will allow any one HRSG to be taken off-line for maintenance while maintaining coke production. The Redundant HRSG Project will ensure that all flue gases generated during maintenance periods and during some malfunctions go to the FGD for treatment before release to atmosphere. To accomplish this objective, Defendants shall install new ductwork and a new HRSG as part of this project.

Process Description

Redundant HRSGs

A new 20-oven HRSG shall be installed at each of the following: HNCC No. 1, HNCC No. 2, and the GECC Battery, connecting to the common tunnel. Each such HRSG shall be designed to facilitate the transfer of gases from existing HRSGs.

Ductwork

New ductwork shall be added to tie-in each Redundant HRSG to the existing system. The duct work shall be sized to accommodate the variations in flue gas flows without adversely impacting the negative pressures required for effective oven operations.

Process Controls

New draft controls shall be installed to precisely control system draft.

Tunnel Tie-Ins

Tunnel tie-ins shall be installed for each new Redundant HRSG. The tie-in locations will be optimized during process modeling currently in progress.

Operational Considerations

The basis of design focuses on the improvement to the overall reliability of the entire system by providing for at least one HRSG to be out of service at any given time. Defendants shall further improve reliability through the implementation of a preventative maintenance program, which will target all existing HRSGs for cleaning and upgrades.

Scope of Work

The scope of work shall include all necessary engineering, procurement and construction support to implement the Redundant HRSG Project.

At a minimum the scope of work shall include the following requirements:

- 1. Follow SunCoke Energy's document control process
- 2. Follow SunCoke Engineering Standards, as applicable
- 3. Process flow diagrams with heat and material balances
- 4. Develop a process control scheme to control the system to demonstrate, in diagram form, (1) the flow of all inputs and data feedback to ensure the system will work as intended, and (2) predict any potential failures of the equipments as well as the digital control system.
- 5. Preliminary piping and instrumentation diagrams (P&ID)
- 6. Plant layout with General Arrangement drawings
- 7. Evaluate the existing plot plans to perform a site and soils review and consider this in the design of the foundation(s)
- 8. Prepare single line electrical diagrams
- 9. Prepare P&IDs for all new systems and modify any impacted P&IDs
- 10. Perform detailed engineering review of the process controls
- 11. Perform a Process Hazard Evaluation
- 12. Perform detailed engineering design for the hot and cold ductwork and dampers

- 13. Develop Procurement and Contracting Plan
- 14. Prepare a Constructability Assessment/Construction
- 15. Prepare purchase orders for equipment and materials
- 16. Execute Purchase Orders
- 17. Prepare General Contractor Construction bid packages
- 18. Startup and heat-up process including dry out of new refractory
- 19. Commissioning and Startup Support

Major Equipment List

- a. One twenty-oven HRSG each for HNCC No. 1, HNCC No. 2, and the GECC Battery
- b. Hot ductwork
- c. Cold ductwork
- d. Louver dampers
- e. Refractory plugs
- f. Draft control equipment

Project Schedule:

A. HNCC No. 2 Redundant HRSG Project

92 Days after Effective Date

Finalize process details

Evaluate long lead item quotes and place order by end of 1Q after the Effective Date for longest lead items

<u>183 Days after Effective Date</u> Finalize process modeling Order balance of long lead materials Start detailed engineering

<u>274 Days after Effective Date</u> Issue Construction Contract Request for Proposal

<u>365 Days or one (1) year after Effective Date</u> Finalize Site Specific Detailed Engineering

457 Days after Effective Date Award Construction Contract Mobilize Construction Start Site Preparation

548 Days after Effective Date Start Structural Work 639 Days after Effective Date Redundant HRSG Installation Pipework Installation

<u>730 Days or two (2) years after Effective Date</u> HNCC No. 2 Redundant HRSG in Service, subject to Operational testing

822 Days after Effective Date HNCC No. 2 Project Operational testing Complete HNCC No. 2 Tests; HNCC No. 2 Redundant HRSG in service

B. <u>HNCC No. 1 and GECC Battery Redundant HRSG Projects</u>

913 Days after Effective Date

Finalize HNCC No. 1 and GECC Battery Design and Changes based on HNCC No. 2 testing Place order for long lead items for HNCC No. 1 and GECC Battery Update Site Specific detailed engineering with lessons learned with HNCC No. 2

<u>1004 Days after Effective Date</u> Issue Construction Contract Request for Proposals

<u>1095 Days or three (3) years after Effective Date</u> Finalize Site Specific Detailed Engineering

<u>1187 Days after Effective Date</u> Award Construction Contract Mobilize Construction Start Site Preparation

<u>1278 Days after Effective Date</u> Start Structural Work

<u>1369 after Effective Date</u> Redundant HRSG Installation Pipework Installation

<u>1460 Days or four (4) years after Effective Date</u> HNCC No. 1 and GECC Battery Redundant HRSGs in Service, subject to Operational testing

<u>1552 Days after Effective Date</u> HNCC No. 1 and GECC Battery Redundant HRSGs Operational Testing Complete HNCC No. 1 and GECC Battery Tests; HNCC No. 1 and GECC Battery Redundant HRSGs in Service

Appendix 2

Flue Gas Flow Rate Study for Use in Calculation of Bypass Stack Emissions

Introduction

Defendants shall perform the Flue Gas Flow Rate Study as set forth herein. The purpose of the study is to determine the average gas flow rate to a Bypass Vent Stack during Scheduled HRSG Maintenance Bypass Venting at each of the Affected Coke Oven Batteries.

Study Plan

During Scheduled HRSG Maintenance Bypass Venting for a 20 oven battery, the flow rate in the Bypass Vent Stack shall be measured continuously over a full 48 hour coking cycle, starting at the time the lid opens at a Bypass Vent Stack at HNCC No. 1, HNCC No. 2, and the GECC Battery, respectively. The dry flow rate shall be calculated by a certified testing contractor employing a flow meter to continuously measure the rate at which flue gas exits the Bypass Vents and using EPA Method 1, 2, 3, 4 or an equivalent EPA-approved test method.

A full traverse flow rate shall be measured at least once every hour using EPA test methods, as set forth above. Between the traverse measurements the pitot tube will be left at the center of the stack with a continuous datalogger running. This will produce 51 consecutive full traverses (each traverse will result in 24 data points) from which flow rates can be calculated. The average dry flow rate over the 48 hour cycle shall be calculated from these data. The average coal charge rate shall also be calculated using the procedure in Attachment A to this Appendix 2 to account for ovens charged prior to the test period and ovens pushed after the test period.

Study Plan Detail

The study plan shall be performed during Scheduled HRSG Maintenance Bypass Venting as set forth below:

- 1) Location for the test
 - a. At HNCC No. 1, HNCC No. 2 and the GECC Battery
 - b. Bypass Vent Stack using standard testing ports
 - c. On a 20 oven battery
 - d. Bypass Vent on HRSG is open for the duration of the test
 - e. If necessary, scaffolding will be constructed to allow for the safe and efficient completion of the testing

- 2) Instrumentation
 - a. Follow EPA Method 2 Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube) as closely as practicable
 - b. Portable analyzer with s-type pitot tube
 - c. Pitot tube at least 10 ft in length to allow for full traverse of the duct
 - d. Automated data logger attached to DP analyzer with potential for wireless connectivity to laptop with sufficient range for the operator to check from indoors
 - e. In addition to the pitot tube measurements, the temperature, pressure and oxygen levels will be checked at all sample points
- 3) Test timing
 - a. Follow EPA Method 1 Sample and Velocity Traverse for Stationary Sources as closely as practicable
 - b. Test shall last 50 hours
 - c. Test shall start at one hour before the Bypass Vent lid is opened and run 50 hours to completely cover a 48 hour cycle
 - d. Perform a traverse measurement of the Bypass Vent Stack at the beginning of the test
 - e. Repeat the traverse measurement of the Bypass Vent Stack once per hour
 - f. Between the traverse measurements leave the pitot tube at the approximate center of the Bypass Vent Stack with the continuous datalogger
 - g. Record all events pertaining to the operation, including but not limited to the following:
 - i. Individual oven pushing/charging times starting at least 48 hours prior to test period start and extending to at least 48 hours after test period ends
 - ii. Amount of coal charged at each oven charging from 48 hours prior to start of test run to 48 hours after end of test run
 - iii. Any out-of-ordinary events

- 4) Data analysis
 - a. Calculate average flow rate from the average of the 49 full traverse flow rates (approximately 1,176 data points) that cover the 48 hour coking cycle (*i.e.*, 51 full traverse flow rates minus the first and last full traverse flow rates)
 - b. Examine the pitot tube data log to confirm there were no outlier excursions of flow either up or down in the time periods between the times that the full traverse measurements were taken
 - c. Review and analyze the flow data and oven push data for possible correlations and patterns
- 5) Operations
 - a. The average coal charge amount shall be targeted as closely as practicable to 42.5 tons for the duration of the test
 - b. In order to ensure that the coal charge rate has reached a steady state before the test period starts, the target coal charge amount will be changed to 42.5 tons starting two cycles before the test run starts and the change will be effected according to standard operating procedures for the Haverhill or Gateway facility, as applicable
 - c. The actual average coal charge rate for the test period shall be calculated in accordance with Attachment A

Attachment A Determination of average coal charge rate for an oven battery over any period of coking

N = number of ovens in battery $t_{start} =$ starting time of test period $t_{end} =$ ending time of test period

A load of coal is processed for an amount of time (charged at the beginning and pushed at the end)

For a given oven during the test period there are M coal loads

Load 1 was charged prior to the start of the test period and pushed during the test period Loads 2 through M-1 were charged and pushed during the test period Load M was charged during the test period and pushed after the end of the test period

The entirety of loads 2 through M-1 shall be counted in the calculation of the average charge rate

Only a fraction of loads 1 and M shall be counted towards the overall average charge rate

 $t_{i,j}$ = time that an oven is charged (with oven out of N and load number j out of M) $C_{i,j}$ = tons of coal loaded in oven i and charge j C_i = tons of coal processed by oven i during test period C_{total} = tons of coal processed by the battery during test period R = average rate of coal processed by battery (tons/hour)

Amount of time that a load (j) in oven (i) is processed = $(t_{i,j+1}-t_{i,j})$

Total coal processed by oven i is determined as follows

$$C_{i} = C_{i,1} \frac{\left(t_{i,2} - t_{start}\right)}{\left(t_{i,2} - t_{i,1}\right)} + \sum_{j=2}^{M-1} C_{i,j} + C_{i,M} \frac{\left(t_{end} - t_{i,M}\right)}{\left(t_{i,M+1} - t_{i,M}\right)}$$

The total coal C_{total} processed by the battery during the test period is

$$C_{total} = \sum_{i=1}^{N} C_i$$

The average rate R is

$$R = \frac{C_{total}}{(t_{end} - t_{start})}$$
Average Gas Rate_{Actual} = $\frac{Coal Charge Rate_{Actual}}{Coal Charge Rate_{Base Test}} \times Average Gas Rate_{Base Test}$
Average Gas Rate_{Actual} = Average Gas Rate_{Base Test} $\times \frac{Coal Charge Rate_{Actual}}{Coal Charge Rate_{Base Test}}$
Average Gas Rate_{Actual} Average Gas Rate_{Base Test} Coal Charge Rate_{Base Test}
Average Gas Rate_{Actual} Average Gas Rate_{Base Test} $\times \frac{Coal Charge Rate_{Base Test}}{Coal Charge Rate_{Base Test}}$
Coal Charge Rate_{Base Test}
 $total tons = \frac{Charge1}{T_{c2} - T_{c1}}(T_{c2} - T_{start}) + \frac{Charge2}{T_{c3} - T_{c2}}(T_{end} - T_{c2})$

<u>Appendix 3</u> List of Notices of Violation (NOVs)

Federal NOVs Relating to the Haverhill Facility

To Haverhill North Coke Company:

- 1. 12/8/08
- 2. 4/15/09
- 3. 2/17/10
- 4. 7/22/10

To SunCoke Energy, Inc.:

- 5. 7/1/10
- 6. 7/1/10
- 7. 7/1/10

Federal NOVs Relating to the Gateway Facility to Gateway Energy & Coke Company

8. 7/8/10

NOVs Relating to the Haverhill Facility Issued by Ohio EPA/Portsmouth Local Air Agency

9. 07/19/05
 10. 11/7/05
 11. 01/26/07
 12. 8/19/08
 13. 10/1/08
 14. 7/17/09 (P902)
 15. 7/17/09 (P901)
 16. 12/11/09
 17. 8/19/10
 18. 3/31/11
 19. 5/17/12

Note: NOVs 5-7 and 14-15 are attached hereto for purposes of clarity, as these NOVs bear the same date as at least one other NOV.

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 85 of 119 Page ID #918

United States, State of Illinois, and State of Ohio v. Gateway Energy & Coke Company, LLC, Haverhill Coke Company, LLC, and SunCoke Energy, Inc.

ATTACHMENT TO APPENDIX 3 OF CONSENT DECREE

Federal Notice of Violation Relating to the Haverhill Facility Issued To SunCoke Energy, Inc. On July 1, 2010

Federal Notice 1 of 3



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

JUL 1 - 2010

REPLY TO THE ATTENTION OF:

AE-17J

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT REQUESTED</u>

Delauna Pack SunCoke Energy, Incorporated Parkside Plaza 11400 Parkside Drive Knoxville, Tennessee 37934

Re: Notice and Finding of Violation at Haverhill North Coke Company, Franklin Furnace

Dear Ms. Pack:

This is to advise you that the U. S. Environmental Protection Agency has determined that Haverhill North Coke Company's (Haverhill North Coke's) facility at 2446 Gallia Pike, Franklin Furnace, Ohio, is in violation of the Clean Air Act (CAA) and associated state or local pollution control requirements. A list of the requirements violated is provided below. We are today issuing to you a Notice of Violation and Finding of Violation (NOV/FOV) for these violations.

Haverhill North Coke's PSD Permit to Install (PTI) limits emissions of particulate matter (PM), particulate matter 10 (PM10), carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO₂) and volatile organic matter (VOM). The purpose of these emissions limits is to help protect the public from unhealthy exposures to criteria pollutants, emissions of which contribute to respiratory problems, lung damage and premature deaths.

Based on Excess Emissions Report (EER) data submitted for emissions unit P901, Haverhill North Coke has violated its 3-hour rolling SO₂ emission limit for six fiscal quarters since 2006. Also, for twelve quarters since the CEM was certified in 2005, Haverhill North Coke has violated its PTI requirement to continuously operate its SO₂ continuous emission monitor (CEM). Additionally, Haverhill North Coke failed to immediately report a baghouse malfunction observed by Portsmouth Local Air Agency on July 6, 2008.

Violation of these requirements is also a violation of the Ohio State Implementation Plan (SIP), as well as Title I, Part C of the CAA and its associated regulations which require compliance with the terms and conditions of PSD permits. Accordingly, Haverhill North Coke has violated Title I of the CAA and its implementing regulations.

Recycled/Recyclable - Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

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. Section 113 of the CAA provides you with the opportunity to request a conference with us about the violations alleged in the NOV/FOV. A conference should be requested within 10 days following receipt of this notice and any conference should be held within 30 days following receipt of this notice. 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 you at this conference.

The EPA contact in this matter is Gina Harrison. You may call her at (312) 353-6956 if you wish to request a conference. EPA hopes that this NOV/FOV will encourage Haverhill North Coke's compliance with the requirements of the CAA.

Sincerely, lon cen

Cheryl L. Newton Director Air and Radiation Division

Enclosure

cc: John Paulian, Division of Air Pollution Control Ohio Environmental Protection Agency

> Cindy Charles, Director, Air Pollution Unit Portsmouth City Health Department

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 88 of 119 Page ID #921

United States Environmental Protection Agency Region 5

IN THE MATTER OF:

Haverhill North Coke Company Franklin Furnace, Ohio NOTICE OF VIOLATION and FINDING OF VIOLATION

EPA-05-10-OH-17

Proceedings Pursuant to the Clean Air Act, 42 U.S.C. §§ 7401 et seq.

NOTICE AND FINDING OF VIOLATION

Haverhill North Coke Company (you or Haverhill North Coke) owns and/or operates a metallurgical coke plant, located at 2446 Gallia Pike, Franklin Furnace, Ohio (facility).

The U. S. Environmental Protection Agency is sending this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to notify you that sulfur dioxide (SO₂) emissions recorded by Continuous Emission Monitor (CEM) S239 from emissions unit P901 at your facility have been in excess of the limits specified in your PSD permit, and the Ohio State Implementation Plan (SIP). Additionally, excessive monitor downtime as recorded in Excess Emission Reports (EERs) is a violation of CEM standards required by your PSD permit. These exceedances and deviations constitute violations of the Clean Air Act (the Act or CAA).

Section 113 of the Act provides you with the opportunity to 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 the facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

Explanation of Violations

The permits and permit conditions relevant to this NOV/FOV are as follows:

Applicable Permits and Regulations:

 Section 110 of the Act, 42 U.S.C. § 7410, requires States to adopt, and submit to EPA for approval, SIP's providing for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS) promulgated by EPA pursuant to Section 109 of the Act, 42 U.S.C. § 7409. EPA has promulgated NAAQS for, among other pollutants, particulate matter and sulfur dioxide (SO₂).

- 2. Pursuant to 40 C.F.R. § 52.23, failure to comply with any approved regulatory provision of a SIP, or with any permit condition issued pursuant to approved or promulgated regulations for the review of new or modified stationary or indirect sources, renders the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Act, 42 U.S.C. § 7413.
- 3. On November 1, 1982, the Administrator of EPA approved OAC Rule 3745-15 as part of the federally enforceable SIP for the State of Ohio. 47 Fed. Reg. 43377. OAC Rule 3745-15 regulates general provisions, including but not limited to malfunctions at stationary sources, scheduled maintenance, and reporting.
- 4. OAC Rule 3745-15-06 requires in the event that any emission source, air pollution control equipment, or related facility breaks down in such a manner as to cause the emission of air contaminants in violation of any applicable law, the source shall immediately notify the Ohio Environmental Protection Agency district office or delegate agency of such failure or breakdown.
- 5. 40 C.F.R. § 63.8 (f)(1) provides that with the exception of system breakdowns, repairs, calibration checks, and zero and span adjustments required, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements.
- 6. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), authorizes the Administrator to initiate an enforcement action whenever, among other things, the Administrator finds that any person has violated or is in violation of a requirement or prohibition of Title V of the CAA, or any rule or permit promulgated, issued or approved under Title V of the CAA.
- 7. 40 C.F.R. § 63.6(e)(1)(i) requires that at all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

Factual Background

- 8. Haverhill North Coke owns and/or operates a metallurgical coke plant at 2446 Gallia Pike, Franklin Furnace, Ohio (facility).
- 9. Ohio Environmental Protection Agency (OEPA) issued PSD Permit to Install 07-00511 (PSD Permit) to the facility on December 11, 2003.
- 10. At the facility Haverhill North Coke operates one 60-oven and one 40-oven non-recovery coke batteries A and B, and one 60-oven and one 40-oven non-recovery coke batteries C and D, identified in its PSD permit as units P901 and P902, respectively.

- 11. SO2 CEM designated S239 for unit P901 was certified by Ohio EPA on June 30, 2005.
- 12. Part III Section A(I)(1) of the PSD Permit effective December 11, 2003, limits SO₂ emissions from unit P901 to 422.40 lbs/hr, 506.88 lbs/hr as a 3-hour block average, and 770.88 tons/year.
- 13. Part III Section A(I)(1) of the PSD Permit underwent administrative modification effective June 27, 2006 to revise limits on SO₂ emissions from unit P901 waste gas stack to 192 lbs/hour as a 3-hour block average, and 700.80 tons/year.
- 14. Haverhill North Coke submitted SO2 CEM Excess Emission Reports for unit P901 to Portsmouth Local Air Agency for the period June 2005 to June 2008. Data is included as Attachment A.
- 15. On August 18, 2008, January 26, 2007, and October 1, 2008, the Portsmouth Local Air Agency (Portsmouth), sent Haverhill North Coke Notices of Violation alleging violations of malfunction reporting requirements and emissions and monitoring standards for CEM S239 on unit P901.

Year	Quarter	Total	Total	Total Non	Downtime	Excess
		Operation	Downtime	Exempt	Percentage of	Emissions
		(minutes)	(minutes)	Excess	Quarter	Percentage of
				Emissions		Quarter
				(minutes)		
2005	3	1 32480 (22200	0	16.76	0
2005	4	132480	23820	0	17.98	0
2006	1	129600	12960	0	10.00	0
2006	2	131040	3480	1080	2.656	0.824
2006	3	132480	6660	33840	5.027	25.54
2006	4	132480	1260	0	0.951	0
2007	1	129600	1560	900	1.204	0.694
2007	2	131040	3480	240	2.656	0.183
2007	3	132480	660	1260	0.498	0.951
2007	4	132480	6540	6300	4.937	4.755
2008	1	131040	6360	1440	4.853	1.098
2008	2	131040	9060	0	6.914	0

Violations of Emissions Limits and Operating Standards

16. Haverhill North Coke's CEM downtime for unit P901 constitutes failure to continuously comply with CEM standards as required by its PSD permit and is therefore a violation of its PSD permit, the Ohio SIP, and PSD regulations promulgated in 40 C.F.R. § 52.21.

- 17. Haverhill North Coke's excess SO₂ emissions from unit P901 are violations of its PSD permit and the Ohio SIP.
- 18. Haverhill North Coke's excess SO₂ emissions during the third quarter of 2006 are violations of 40 C.F.R. 63.6(e)(1)(i).

Violation of Malfunction Reporting Requirements

- 19. Haverhill North Coke's July 6th 2008 Coke Screening Baghouse malfunction was not immediately reported to Ohio EPA and is therefore a violation of its PSD permit and the Ohio SIP.
- 20. Haverhill North Coke's February 8th 2008 atomizer malfunctions were not immediately reported to Ohio EPA and are therefore violations of its PSD permit and the Ohio SIP.

Environmental Impact of Violations

21. Excess emissions of SO₂ increase the amount of acid rain and public exposure to unhealthy levels of SO₂. SO₂ reacts with other chemicals in the air to form tiny sulfate particles. Long term exposure to high levels of SO₂ gas and particles can cause respiratory illness, aggravate existing heart disease, and lead to premature death.

7/1/10

Cha cur Cheryl L. Newton

Director Air and Radiation Division Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 92 of 119 Page ID #925

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-09-OH-02, by Certified Mail, Return Receipt Requested, to:

SunCoke Energy, Incorporated Delauna Pack Parkside Plaza 11400 Parkside Drive Knoxville, Tennessee 37934

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

Cindy Charles Portsmouth Local Air Agency 605 Washington Street, Third Floor Portsmouth, Ohio, 45662

John Paulian OH EPA – DAPC Lazarus Government Center PO Box 1049 Columbus, Ohio, 43215

on the $\underline{7}$ day of $\underline{}$, 2010.

Coretta Shaffer, Secreta

AECAS, MN-OH

CERTIFIED MAIL RECEIPT NUMBER: 700 0320000601920454

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 93 of 119 Page ID #926

United States, State of Illinois, and State of Ohio v. Gateway Energy & Coke Company, LLC, Haverhill Coke Company, LLC, and SunCoke Energy, Inc.

ATTACHMENT TO APPENDIX 3 OF CONSENT DECREE

Federal Notice of Violation Relating to the Haverhill Facility Issued To SunCoke Energy, Inc. On July 1, 2010

Federal Notice 2 of 3

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 94 of 119 Page ID #927



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

JUL 1 - 2010

REPLY TO THE ATTENTION OF:

AE-17J

<u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Delauna Pack SunCoke Energy, Incorporated Parkside Plaza 11400 Parkside Drive Knoxville, Tennessee 37934

Re: Notice and Finding of Violation at Haverhill North Coke Company, Franklin Furnace

Dear Ms. Pack:

This is to advise you that the U.S. Environmental Protection Agency has determined that Haverhill North Coke Company's (Haverhill North Coke's) facility at 2446 Gallia Pike, Franklin Furnace, Ohio, is in violation of the Clean Air Act (CAA) and associated state or local pollution control requirements. A list of the requirements violated is provided below. We are today issuing you a Notice of Violation and Finding of Violation (NOV/FOV) for these violations.

Haverhill North Coke's PSD Permit to Install (PTI) limits emissions of particulate matter (PM), particulate matter 10 (PM10), carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO₂) and volatile organic matter (VOM). The purpose of these emissions limits is to help protect the public from unhealthy exposures to criteria pollutants, emissions of which contribute to respiratory problems, lung damage and premature deaths.

Based on data submitted to EPA on April 28, 2006, December 11, 2009 and December 18, 2009, Haverhill North Coke has violated and continues to violate provisions in its PSD permit that govern bypass venting, emissions limits, and continuous emission monitoring (CEMS) standards for units P901 and P902 coke batteries. Violation of these requirements is also a violation of the Ohio State Implementation Plan (SIP), as well as Title I, Part C of the CAA and its associated regulations which require compliance with the terms and conditions of PSD permits. Accordingly, Haverhill North Coke has violated Title I of the CAA and its implementing regulations.

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. Section 113 of the CAA provides you with the opportunity to request a conference with us about the violations alleged in

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

the NOV/FOV. A conference should be requested within 10 days following receipt of this notice and any conference should be held within 30 days following receipt of this notice. 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 you at this conference.

EPA's contact in this matter is Gina Harrison. You may call her at (312) 353-6956 if you wish to request a conference. EPA hopes that this NOV/FOV will encourage Haverhill North Coke's compliance with the requirements of the CAA.

Sincerely. br CLP Chervl L. Newton Director

Air and Radiation Division

Enclosure

cc: John Paulian, Division of Air Pollution Control Ohio Environmental Protection Agency

> Cindy Charles, Director, Air Pollution Unit Portsmouth City Health Department

United States Environmental Protection Agency Region 5

IN THE MATTER OF:

Haverhill North Coke Company Franklin Furnace, Ohio

NOTICE OF VIOLATION and FINDING OF VIOLATION

EPA-05-10-OH-18

Proceedings Pursuant to the Clean Air Act, 42 U.S.C. §§ 7401 et seq.

NOTICE AND FINDING OF VIOLATION

EPA is issuing this Notice and Finding of Violation (Notice) under Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1). The authority to issue this Notice has been delegated to the Regional Administrator of the EPA Region 5, and redelegated to the Director, Air and Radiation Division. EPA finds that Haverhill North Coke Company and Sun Coke Energy (Haverhill North Coke or facility), are violating the Clean Air Act (Act), 42 U.S.C. § 7401 *et seq.*, at the Haverhill North Coke Plant in Franklin Furnace, Ohio, as follows:

Applicable Permits and Regulations:

- Section 110 of the Act, 42 U.S.C. § 7410, requires States to adopt, and submit to EPA for approval, SIPs providing for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS) promulgated by EPA pursuant to Section 109 of the Act, 42 U.S.C. § 7409. EPA has promulgated NAAQS for, among other pollutants, nitrogen oxides (NOx), particulate matter (PM) and sulfur dioxide (SO₂).
- 2. Pursuant to 40 C.F.R. § 52.23, failure to comply with any approved regulatory provision of a SIP, or with any permit condition issued pursuant to approved or promulgated regulations for the review of new or modified stationary or indirect sources, renders the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Act, 42 U.S.C. § 7413.
- 3. On November 1, 1982, the Administrator of EPA approved OAC Rule 3745-15 as part of the federally enforceable SIP for the State of Ohio. 47 Fed. Reg. 43377. OAC Rule 3745-15 regulates general provisions, including but not limited to malfunctions at stationary sources, scheduled maintenance, and reporting.
- 4. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), authorizes the Administrator to initiate an enforcement action whenever, among other things, the Administrator finds that

any person has violated or is in violation of a requirement or prohibition of Title V of the CAA, or any rule or permit promulgated, issued or approved under Title V of the CAA.

- 5. 40 C.F.R. § 63.6(e)(1)(i) requires that at all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
- 6. 40 C.F.R § 63.8(f)(1) requires that with the exception of system breakdowns, repairs, calibration checks, and zero and span adjustments required, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements.
- Ohio EPA, delegated authority by EPA, issued PSD Permit to Install 07-00511 (PSD Permit) to Haverhill North Coke on December 11, 2003. The permit was modified to incorporate new bypass PM emission rate limits via administrative modification on June 27, 2006, and January 15, 2008.
- 8. Part III Section A(II)(9) of the PSD Permit effective December 11, 2003, limits bypass venting from units P901 and P902 to 192 hours per bypass vent stack, per rolling 12 month period.
- 9. Part III Section A(II)(9) of the PSD Permit effective December 11, 2003, requires that there shall be no more than one bypass vent stack in use at any time.
- 10. Part III Section A(I)(1) of the PSD Permit effective December 11, 2003, limits annual SO₂ emissions from unit P901 bypass vents and unit P902 bypass vents to 192 tons/year per unit.
- 11. Part III Section A(II)(9) of the PSD Permit effective December 11, 2003, limits the rate of NOx emissions from the unit P902 waste gas stack to 1 pound per ton of coal charged.
- 12. Part III Section A(II)(9) of the PSD Permit effective December 11, 2003, limits PM emissions from each HRSG bypass vent stack to 12.86 pounds per hour. Portsmouth Local Air Agency modified the PSD Permit on June 27, 2006 to incorporate a new bypass PM limit of 17.14 pounds per hour.
- 13. Part III Section A(I)(1) of the PSD Permit effective December 11, 2003, limits annual PM emissions from unit P901 bypass vents and unit P902 bypass vents to 10.8 tons/year per unit.
- 14. P902 Section A(III)(7-8) and (40-42) of the PSD Permit effective January 15, 2008 requires the facility to operate and maintain equipment to continuously monitor and record SO₂ and mercury (Hg) emissions from the waste gas stack in pounds per hour, and maintain records of all data obtained by the CEMS and sorbent trap monitoring system, including the concentration and emission rate of SO₂ and mercury from the exhausted gas.

Factual Background

- 15. Haverhill North Coke owns and/or operates a metallurgical coke plant at 2446 Gallia Pike, Franklin Furnace, Ohio (facility).
- 16. At the facility Haverhill North Coke operates 200 nonrecovery coke ovens designated as Batteries A, B, C, and D. Haverhill's PSD permit identifies emissions unit P901, or Batteries A and B, as the set of 100 ovens constructed in 2004, and P902, or Batteries C and D, as the set of 100 ovens constructed in 2008.
- 17. Haverhill North Coke's April 28, 2006 Compliance Demonstration Report showed a PM emission rate of 17.5 pounds per hour coming from bypass vent stack #3.
- 18. EPA issued a Notice and Finding of Violation to Haverhill North Coke Company on December 10, 2008 alleging violations of waste gas stack SO₂ limits and CEMS standards.
- Haverhill North Coke submitted EERs to Portsmouth Local Air Agency for the period October 1, 2008 to March 31, 2009, which showed that the downtime for the SO₂ CEMS for P901& P902 for the first quarter of 2009 was 34.4% (65.6% data capture) and 15.38% (84.62% data capture), respectively. The monitor downtime for the Hg CEMS for P902 for the fourth quarter 2008 and first quarter 2009 was 18.35% (81.65% data capture) and 11.20% (88.8% data capture), respectively.
- 20. EPA issued a Notice and Finding of Violation to Haverhill North Coke Company on April 15, 2009 alleging violations of bypass venting standards and emission limits.
- 21. Haverhill North Coke's April 19, 2009 Compliance Demonstration Report showed a NOx emission rate of 1.3 pounds per ton coming from the P902 waste gas stack.
- 22. Haverhill North Coke retested the P902 waste gas stack on July 9, 2009 and recorded a NOx emission rate of 0.792 pounds per ton.
- 23. Portsmouth Local Air Agency issued Notices of Violation to Haverhill North Coke Company on July 17, 2009 and December 11, 2009, alleging violations of the 1 pound per ton waste gas stack NOx emission limit, CEMS operational standards and requirements for SO2 and mercury monitors, and bypass venting standards.
- 24. In its December 18, 2009 response to EPA, Haverhill North Coke reported 2955 hours of bypass venting, 642 tons of SO₂, and 86 tons of PM emitted from the bypass vent stacks since January 1, 2009.

3

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 99 of 119 Page ID #932

2009 Violations of Bypass Venting Operating Standards and Emissions Limits

<u>Unit P901</u>

.

Month/	Total	Total	Total	Total	Total	Rolling	Rolling	Rolling	Rolling	Rolling
Year	Bypass	Bypass	Bypass	Bypass	Bypass	12-M	12-M	12-M	12-M	12-M
	Events	Events	Events	Events	Events	Total	Total	Total	Total	Total
	(hours)									
	BV1	BV2	BV3	BV4	BV5	BV1	BV2	BV3	BV4	BV5
01/2009		9.22		1.13	57.3	166.6	139.6	100.2	103	211.3
02/2009	254.4	252.4	263.2*	262.9	294.9	421	392	363.4	365.9	506.2
03/2009	0.12	0.17	0.2	0.28	0.32	421.1	392.1	363.6	366.2	506.5
04/2009	0.73			0.65	0.52	421.9	392.1	263.6	366.8	507
05/2009		0.15	0.17	0.12	0.13	421.9	392.3	263.8	367	353.3
06/2009	141.5*	0.02	0.05	0.29	0.09	396.7	392.1	263.7	367.1	353.2
07/2009		111.3*	•			396.7	373.3	263.7	367.1	353.2
08/2009	0.49	0.38	0.37	0.27	0.18	397.2	373.7	264	367.3	353.4
09/2009				135.7	0.02	397.2	373.7	264	401.3	353.4
10/2009					0.08	397.2	373.6	263.9	401.3	353.5
11/2009					0.2	397.2	373.6	263.9	401.3	353.7
12/2009						397.2	373.6	263.9	401.3	353.7

<u>Unit P902</u>

Month/	Total	Total	Total	Total	Total	Rolling	Rolling	Rolling	Rolling	Rolling
Year	Bypass	Bypass	Bypass	Bypass	Bypass	12-M	12-M	12-M	12-M	12-M
	Events	Events	Events	Events	Events	Total	Total	Total	Total	Total
	(hours)									
	BV6	BV7	BV8	BV9	BV10	BV6	BV7	BV8	BV9	BV10
01/2009	1.8	0.97	1.9	2.2	1.8	269	777.2	502.5	310.8	308.01
02/2009						269	777.2	502.5	310.8	308.01
03/2009	153*					421.96	777.22	502.5	310.75	308.01
04/2009		142*	110*			421.96	919.2	612.5	310.75	308.01
05/2009			42.2*	113*	12*	421.96	919.2	654.7	423.73	320.01
06/2009	0.4	1.28	2.51	0.32	140.5*	422.33	920.48	657.21	424.05	460.51
07/2009	0.7	0.73	0.73	0.55	0.55	423.06	921.21	657.94	424.6	461.06
08/2009	0.2		0.23	0.52	0.35	423.26	921.21	658.17	425.12	461.41
09/2009	98.2			0.02		339.37	733.24	437.36	174.82	240.66
10/2009	351.5	344.3	344.4	352	343.4	684.7	821.5	776.03	521.09	578.22
11/2009						679.9	649.79	546.01	518.14	568.74
12/2009	0.2	0.45	I		4	606	489.71	502.01	468.59	502.6

designates annual HRSG maintenance as part of the 12-month rolling total.

	Unit	Total	Annual	Percent	Total	Annual	Percent
		Annual	Permit	Exceeding	Annual	Permit	Exceeding
		SO ₂	Limit,	Permit	PM	Limit,	Permit
		(tons)	SO ₂	Limit for	(tons)	PM	Limit for
	4		(tons/	SO ₂		(tons/	PM
.		·	year)			year)	
	P901	196.7	192	102%	16.2	10.8	150%
	P902	445.4	192	232%	69.6	10.8	644%

2009 Excess SO2 and PM Emissions from Bypass Vents

- 25. Haverhill North Coke's excess bypass venting from units P901 and P902 since January 1, 2009 collectively constitutes 116 rolling months of failure to comply with operational standards as required by Part III Section (A)(II)(9) of its PSD permit and therefore violates its PSD permit, Title V of the CAA, the Ohio SIP, and PSD regulations promulgated in 40 C.F.R. § 52.21.
- 26. Haverhill North Coke's excess SO₂ emissions from unit P901 bypass vent stacks constitute violations of Part III Section A(I)(1) of its PSD permit, Title V of the CAA, the Ohio SIP, and 40 C.F.R. 63.6(e)(1)(i).
- 27. Haverhill North Coke's excess PM emissions from unit P901 bypass vent stacks are violations of Part III Section A(I)(1) of its PSD permit, Title V of the CAA, the Ohio SIP, and 40 C.F.R. 63.6(e)(1)(i).
- 28. Haverhill North Coke's practice of opening more than one bypass vent stack at one time is a violation of Part III Section A(II)(9) of its PSD permit Title V of the CAA, the Ohio SIP, and 40 C.F.R. § 63.6(e).
- 29. Haverhill North Coke's failure to limit PM emissions from bypass vents during the period April 28, 2006 to June 27, 2006 is a violation of Part III Section A(I)(1) of its PSD Permit, Title V of the CAA, the Ohio SIP, and 40 C.F.R. § 63.6(e).
- 30. Haverhill North Coke's failure to limit NOx emission rates from waste gas stacks during the period May 19, 2009 to July 9, 2009 is a violation of Part III Section A(II)(9) of its PSD Permit, Title V of the CAA, the Ohio SIP, and 40 C.F.R. § 63.6(e).
- 31. Haverhill North Coke's failure to continuously operate and maintain its SO₂ CEMS and Hg sorbent trap monitoring system to monitor SO₂ and Hg emissions from the waste gas stack is a violation of P901 and P902 Section A(III)(7-8) and (40-42) of its PSD permit, Ohio SIP PSD regulations, and NESHAP regulations at 40 C.F.R. § 63.6(e) and 40 C.F.R. § 63.8 (f)(1).

Environmental Impact of Violations

- 32. Excess emissions of SO₂ increase the amount of acid rain and public exposure to unhealthy levels of SO₂. SO₂ reacts with other chemicals in the air to form tiny sulfate particles. Long term exposure to high levels of SO₂ gas and particles can cause respiratory illness, aggravate existing heart disease, and lead to premature death.
- 33. Violations of particulate emissions standards increases public exposure to unhealthy particulate matter. Particulate matter, especially fine particulate, contributes to respiratory problems, lung damage and premature deaths.
- 34. Excess emissions of NOx increase ground level concentrations of ozone and nitrogen dioxide, both of which can cause respiratory inflammation, increased difficulty breathing, and lung damage. NOx emissions also contribute to acid rain, global warming, the formation of fine particles in the atmosphere, water quality deterioration, and visibility impairment.

for law Jewton Director

Air and Radiation Division

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 102 of 119 Page ID #935

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-10-OH-09, by Certified Mail, Return Receipt Requested, to:

SunCoke Energy, Incorporated Delauna Park Parkside Plaza 11400 Parkside Drive Knoxville, Tennessee 37934

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

Cindy Charles Portsmouth Local Air Agency 605 Washington Street, Third Floor Portsmouth, Ohio 45662

John Paulian Ohio EPA – DAPC Lazarus Government Center P.O. Box 1049 Columbus, Ohio 43215

Cathy Rojko U.S. Department of Justice/ENRD Environmental Enforcement Section P.O. Box 7611, Ben Franklin Station Washington, DC 20044

on the 7 day of Jul , 2010.

Loreita Shaffer, Secretary AECAS, MN-OH

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 0006 0192 0430

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 103 of 119 Page ID #936

United States, State of Illinois, and State of Ohio v. Gateway Energy & Coke Company, LLC, Haverhill Coke Company, LLC, and SunCoke Energy, Inc.

ATTACHMENT TO APPENDIX 3 OF CONSENT DECREE

Federal Notice of Violation Relating to the Haverhill Facility Issued To SunCoke Energy, Inc. On July 1, 2010

Federal Notice 3 of 3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

JUL 1 - 2010

REPLY TO THE ATTENTION OF:

AE-17J

<u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Delauna Pack SunCoke Energy, Incorporated Parkside Plaza 11400 Parkside Drive Knoxville, Tennessee 37934

Re: Notice and Finding of Violation at Haverhill North Coke Company, Franklin Furnace

Dear Ms. Pack:

This is to advise you that the U.S. Environmental Protection Agency has determined that Haverhill North Coke Company's (Haverhill North Coke's) facility at 2446 Gallia Pike, Franklin Furnace, Ohio, is in violation of the Clean Air Act (CAA) and associated state or local pollution control requirements. A list of the requirements violated is provided below. We are today issuing you a Notice of Violation and Finding of Violation (NOV/FOV) for these violations.

Haverhill North Coke's PSD Permit to Install (PTI) limits emissions of particulate matter (PM), particulate matter 10 (PM10), carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO₂) and volatile organic matter (VOM). The purpose of these emissions limits is to help protect the public from unhealthy exposures to criteria pollutants, emissions of which contribute to respiratory problems, lung damage and premature deaths.

Based on data submitted to EPA on March 3, 2009, Haverhill North Coke has violated and continues to violate provisions in its PSD permit that govern bypass venting from units P901 and P902 coke batteries. Violation of these requirements is also a violation of the Ohio State Implementation Plan (SIP), as well as Title I, Part C of the CAA and its associated regulations which require compliance with the terms and conditions of PSD permits. Accordingly, Haverhill North Coke has violated Title I of the CAA and its implementing regulations.

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. Section 113 of the CAA

Recycled/Recyclable . Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

provides you with the opportunity to request a conference with us about the violations alleged in the NOV/FOV. A conference should be requested within 10 days following receipt of this notice and any conference should be held within 30 days following receipt of this notice. 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 you at this conference.

EPA's contact in this matter is Gina Harrison. You may call her at (312) 353-6956 if you wish to request a conference. EPA hopes that this NOV/FOV will encourage Haverhill North Coke's compliance with the requirements of the CAA.

Sincerely, In CLN ChervLL. Newton Director

Air and Radiation Division

Enclosure

John Paulian, Division of Air Pollution Control cc: **Ohio Environmental Protection Agency**

> Cindy Charles, Director, Air Pollution Unit Portsmouth City Health Department

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 106 of 119 Page ID #939

United States Environmental Protection Agency Region 5

(

IN THE MATTER OF:

Haverhill North Coke Company Franklin Furnace, Ohio

NOTICE OF VIOLATION and FINDING OF VIOLATION

EPA-05-10-OH-19

Proceedings Pursuant to the Clean Air Act, 42 U.S.C. §§ 7401 et seq.

NOTICE AND FINDING OF VIOLATION

EPA is issuing this Notice and Finding of Violation (Notice) under Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1). The authority to issue this Notice has been delegated to the Regional Administrator of the EPA Region 5, and redelegated to the Director, Air and Radiation Division. EPA finds that Haverhill North Coke Company and Sun Coke Energy (Haverhill North Coke), are violating the Clean Air Act (Act), 42 U.S.C. § 7401 *et seq.*, at the Haverhill North Coke Plant in Franklin Furnace, Ohio, as follows:

Applicable Permits and Regulations:

- Section 110 of the Act, 42 U.S.C. § 7410, requires States to adopt, and submit to EPA for approval, SIP's providing for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS) promulgated by EPA pursuant to Section 109 of the Act, 42 U.S.C. § 7409. EPA has promulgated NAAQS for, among other pollutants, particulate matter (PM) and sulfur dioxide (SO₂).
- 2. Pursuant to 40 C.F.R. § 52.23, failure to comply with any approved regulatory provision of a SIP, or with any permit condition issued pursuant to approved or promulgated regulations for the review of new or modified stationary or indirect sources, renders the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Act, 42 U.S.C. § 7413.
- 3. On November 1, 1982, the Administrator of EPA approved OAC Rule 3745-15 as part of the federally enforceable SIP for the State of Ohio. 47 Fed. Reg. 43377. OAC Rule 3745-15 regulates general provisions, including but not limited to malfunctions at stationary sources, scheduled maintenance, and reporting.
- 4. OAC Rule 3745-15-06(A)(3) requires any source scheduling maintenance activities requiring the shutdown or bypassing of air pollution control equipment to request authorization to continue operating the source during the scheduled maintenance. This

request should be submitted in a written report at least two weeks prior to the planned shutdown of the air pollution control equipment.

- 5. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), authorizes the Administrator to initiate an enforcement action whenever, among other things, the Administrator finds that any person has violated or is in violation of a requirement or prohibition of Title V of the CAA, or any rule or permit promulgated, issued or approved under Title V of the CAA.
- 6. 40 C.F.R. § 63.6(e)(1)(i) requires that at all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
- Ohio EPA, delegated authority by EPA, issued PSD Permit to Install 07-00511 (PSD Permit) to Haverhill North Coke on December 11, 2003. The permit was modified to incorporate new bypass PM emission rate limits via administrative modification on June 27, 2006, and January 15, 2008.
- 8. Part III Section A(I)(1) of the PSD Permit effective December 11, 2003, limits annual SO₂ emissions from unit P901 bypass vents and unit P902 bypass vents to 192 tons/year per unit.
- 9. Part III Section A(I)(1) of the PSD Permit effective December 11, 2003, limits annual PM emissions from unit P901 bypass vents and unit P902 bypass vents to 10.8 tons/year per unit.
- 10. Part III Section A(II)(9) of the PSD Permit effective December 11, 2003, limits bypass venting from units P901 and P902 to 192 hours per bypass vent stack, per rolling 12 month period.
- 11. Part III Section A(II)(9) of the PSD Permit effective December 11, 2003, requires that there shall be no more than one bypass vent stack in use at any time.

Factual Background

- 12. Haverhill North Coke owns and/or operates a metallurgical coke plant at 2446 Gallia Pike, Franklin Furnace, Ohio (facility).
- 13. At the facility Haverhill North Coke operates 200 non-recovery coke ovens designated as Batteries A, B, C, and D. Haverhill's PSD permit identifies emissions unit P901, or Batteries A and B, as the set of 100 ovens constructed in 2004, and P902, or Batteries C and D, as the set of 100 ovens constructed in 2008.
- 14. EPA issued a Notice and Finding of Violation to Haverhill North Coke Company alleging violations of waste gas stack SO₂ limits on December 10, 2008.

- 15. EPA sent an information request to Haverhill North Coke Company on February 17, 2009, requesting more information on bypass venting.
- 16. Haverhill North Coke responded to the information request on March 3, 2009, and reported 7409 hours of bypass venting, 723 excess tons of SO2, and 47.6 excess tons of PM emitted from the bypass vent stacks since July 2005.
- 17. In its March 3, 2009 response to EPA, Haverhill North Coke indicated it had not informed Portsmouth Local Air Agency of three HRSG maintenance events, which occurred in 2006, 2007, and 2008.
- 18. Haverhill North Coke unit P901 suffered a catastrophic stack collapse on February 11, 2009. Haverhill North Coke reported the event and sent subsequent emails¹ to Portsmouth Local Air Agency describing the duration of the event, projected cause and necessary repairs, and estimated emissions. In these correspondences, Haverhill North Coke reported a total of 1323 hours of bypass venting resulting from this event.

Violations of Emissions Limits and Operating Standards

Month/	Total	Total	Total	Total	Total	Rolling	Rolling	Rolling	Rolling	Rolling
Year	Bypass	Bypass	Bypass	Bypass	Bypass	12-M	12-M	12 - M	12-M	12-M
	Events	Events	Events	Events	Events	Total	Total	Total	Total	Total
	(hours)	(hours)	(hours)							
	BV1	BV2	BV3	BV4	BV5	BV1	BV2	BV3	BV4	BV5
07/2005	10	10	10	10	10	10	10	10	10	10
11/2005	315.5	287	246	230	230	325.5	297	256	240	240
12/2005	1.4					326.9	297	256	240	240
03/2006	0.83	0.38	1.07	0.43	0.47	327.7	297.4	257.1	240.4	240.5
04/2006	· · · ·		148.4*			327.7	297.4	405.5	240.4	240.5
05/2006					156.3*	327.7	297.4	405.5	240.4	396.7
06/2006		0.17		164.8*		327.7	297.6	405.5	405.2	396.7
07/2006		149.4*				317.7	436.9	395.5	395.2	386.7
08/2006	151.6*					469.3	436.9	395.5	395.2	386.7
10/2006					0.04	469.3	436.9	395.5	395.2	386.8
12/2006			0.47			152.4	149.9	150	165.2	156.8
02/2007	148.3	1.28	0.78	146.4	170.1	300.7	151.2	150.8	311.6	326.9
04/2007			121.6*			299.9	150.8	149.7	311.2	326.4
05/2007	0.25	0.62	0.92	0.4	110.5*	300.1	151.4	123.8	311.6	280.6
06/2007	252.8*					552.9	151.3	123.8	146.8	280.6

<u>Unit P901</u>

¹ February 24, 2009, email from Kris Kinder (HNCC) to Cindy Charles (PLAA) reported a total of 1323 hours of bypass venting as a result of the stack collapse.

* designates annual HRSG maintenance as part of the 12-month rolling total.

07/2007	66.87	116.6*	0.02		0.08	619.8	118.5	123.8	146.8	280.7
08/2007	179.1				28.88	798.9	267.9	272.2	311.6	465.9
09/2007	17	19	93.83	130.2*	11	664.3	137.5	217.6	277	320.6
10/2007	190.3	170.1	167.1	93.53	160.3	854.6	307.7	384.7	370.5	480.8
12/2007		1				854.6	308.7	384.2	370.5	480.8
04/2008			99.95*			706.3	307.4	361.8	224.2	310.7
05/2008					153.9*	706	306.8	360.9	223.8	354.1
06/2008	166.6*	0.17	0.17	0.17	0.17	619.8	306.9	361.1	223.9	354.3
07/2008		130.1*				553	320.4	361	223.9	354.2
09/2008				101.7*		356.9	301.4	267.2	195.4	314.3
10/2008		0.08	0.08	·		166.6	131.4	100.2	101.9	154.1
01/2009		9.22		1.13	45.28	166.6	139.6	100.2	101.9	154.1
02/2009	227	228	287	263	295	393.6	367.6	387.2	366	494.3

<u>Unit P902</u>

Month/	Total	Total	Total	Total	Total	Rolling	Rolling	Rolling	Rolling	Rolling
Year	Bypass	Bypass	Bypass	Bypass	Bypass	12-M	12-M	12-M	12 - M	12-M
	Events	Events	Events	Events	Events	Total	Total	Total	Total	Total
	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)
	BV6	BV7	BV8	BV9	BV10	BV6	BV7	BV8	BV9	BV10
09/2008	182.1	188	220.8	250.3	220.8	182.1	188	220.8	250.3	220.8
10/2008	6.15	256	5.73	5.7	5.86	188.3	444	226.5	256	226.6
11/2008	4.8	171.7	230	2.95	9.48	193.1	615.7	456.6	259	236.1
12/2008	74.1	160.5	44	49.55	70.14	267.2	776.3	500.6	308.5	306.2
01/2009	1.8	0.97	1.94	2.23	1.78	269	777.2	502.5	310.8	308

Excess SO2 and PM Emissions from Bypass Vents

Year	Total	Annual	Percent	Total	Annual	Percent
	Annual	Permit	Exceeding	Annual	Permit	Exceeding
	SO ₂	Limit,	Permit	PM	Limit,	Permit
	(tons)	SO ₂	Limit for	(tons)	PM	Limit for
		(tons/	SO ₂		(tons/	PM
		year)			year)	
2005	176	192	-	13.1	10.8	121%
2006	107	192	-	6.78	10.8	-
2007	354	192	184%	22.0	10.8	203%

19. Haverhill North Coke's excess bypass venting from units P901 and P902 since 2005 collectively constitutes 165 rolling months of failure to comply with operation standards as required by its PSD permit and therefore violates its PSD permit, the Ohio SIP, and PSD regulations promulgated in 40 C.F.R. § 52.21.

- 20. Haverhill North Coke's excess SO₂ emissions from unit P901 bypass vent stacks constitute violations of its PSD permit, the Ohio SIP, and 40 C.F.R. 63.6(e)(1)(i).
- 21. Haverhill North Coke's excess PM emissions from unit P901 bypass vent stacks are violations of its PSD permit, the Ohio SIP, and 40 C.F.R. 63.6(e)(1)(i).
- 22. Haverhill North Coke's practice of opening more than one bypass vent stack at one time is a violation of its PSD permit.
- 23. Failure of Haverhill North Coke to notify Portsmouth Local Air Agency of HRSG maintenance activities is a violation of OAC 3745-15-06(A)(3).

Environmental Impact of Violations

- 24. Excess emissions of SO₂ increase the amount of acid rain and public exposure to unhealthy levels of SO₂. SO₂ reacts with other chemicals in the air to form tiny sulfate particles. Long term exposure to high levels of SO₂ gas and particles can cause respiratory illness, aggravate existing heart disease, and lead to premature death.
- 25. Violations of particulate emissions standards increases public exposure to unhealthy particulate matter. Particulate matter, especially fine particulate, contributes to respiratory problems, lung damage and premature deaths.

Chervl L.

Director Air and Radiation Division

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 111 of 119 Page ID #944

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-09-OH-14, by Certified Mail, Return Receipt Requested, to:

SunCoke Energy, Incorporated Delauna Pack Parkside Plaza 11400 Parkside Drive Knoxville, Tennessee 37934

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

Cindy Charles Portsmouth Local Air Agency 605 Washington Street, Third Floor Portsmouth, Ohio 45662

John Paulian OH EPA – DAPC Lazarus Government Center P.O. Box 1049 Columbus, Ohio 43215

on the 7 day of 32010.

Loretta Shaffer, Secretar

AECAS, MN-OH

CERTIFIED MAIL RECEIPT NUMBER: 700 0320 0006 0192 0447

Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 112 of 119 Page ID #945

United States, State of Illinois, and State of Ohio v. Gateway Energy & Coke Company, LLC, Haverhill Coke Company, LLC, and SunCoke Energy, Inc.

ATTACHMENT TO APPENDIX 3 OF CONSENT DECREE

Ohio EPA / Portsmouth Local Air Agency Notice of Violation Relating to the Haverhill Facility, Issued To Haverhill North Coke Company On July 17, 2009

State Notice 1 of 2



PORTSMOUTH LOCAL AIR AGENCY

USEPA AND OEPA REPRESENTATIVE FOR ADAMS, BROWN, SCIOTO AND LAWRENCE COUNTIES 605 Washington Street, Third Floor, Portsmouth, Ohio 45662 (740) 353-5156 Fax (740) 353-3638

July 17, 2009

CERTIFIED MAIL

Mr. John Essman General Manager Haverhill North Coke Company 2446 Gallia Pike Franklin Furnace, OH 45629

Re: Notice of Violation

Dear Mr. Essman:

Our office is in receipt of the emission compliance test report for Haverhill North Coke Company's nonrecovery coke oven battery (C&D) (OEPA ID P902), located at 2446 Gallia Pike, Franklin Furnace, Ohio, conducted April 7th thru 17th, 2009. The purpose of the stack test was to determine compliance with the battery's allowable mass emissions rates for particulate matter (PM), Carbon Monoxide (CO), Sulfur Dioxide (SO2), Nitrogen Oxides (NOx), Volatile Organic Compounds (VOCs), Lead (Pb), Hydrochloric Acid (HCl), Mercury (Hg), and opacity at the waste gas, as well as compliance testing on the charging baghouse, and pushing multiclone exhaust stacks, as required in PTI 07-00511 issued on June 26, 2006.

PTI 07-00511 lists allowable NOx mass emission rates for this battery of 120.0 pounds per hour and 1 pound per ton of coal charged pursuant to 40 CFR Part 52.21 and Ohio Administrative Code (OAC) 3745-31-10 thru 20. The test results submitted show the average NOx emissions to be 1.30 pound per ton during the April 9, 2009 compliance test of the waste gas stack exhaust.

This office has found this failure to comply with the allowable mass emission rate for NOx pounds per tons of coal charged to be a violation of PTI 07-00511 and OAC rules 3745-31-05(A)(3).

This agency is requesting within fourteen days of receipt of this letter, that The Haverhill North Coke Company submit a compliance schedule which outlines the steps to be taken to bring the abovementioned source into compliance, and the dates by which each step will be completed. Also requested is a description of any interim measures The Haverhill North Coke Company has taken to return to compliance.

Acceptance by the Ohio EPA of this information does not constitute a waiver of the Ohio EPA's authority to seek civil penalties as provided in section 3704.06 of the Ohio Revised Code. The determination to pursue or decline such penalties in this case will be made by the Ohio EPA at a later date.

Haverhill North Coke Company July 17, 2009 Page Two

If you are unable to respond to any part of this request, within the time frame discussed above, please inform us and explain so that we may be of assistance.

If you have any questions or need additional information, please me at (740) 353-5156.

Sincerely,

4 Charles_

Cindy Charles Director Portsmouth Local Air Agency

cc: John Paulian, OEPA, DAPC Lisa Holscher, USEPA Gina Harrison, USEPA Case 3:13-cv-00616-DRH-SCW Document 47 Filed 11/10/14 Page 115 of 119 Page ID #948

United States, State of Illinois, and State of Ohio v. Gateway Energy & Coke Company, LLC, Haverhill Coke Company, LLC, and SunCoke Energy, Inc.

ATTACHMENT TO APPENDIX 3 OF CONSENT DECREE

Ohio EPA / Portsmouth Local Air Agency Notice of Violation Relating to the Haverhill Facility, Issued To Haverhill North Coke Company On July 17, 2009

State Notice 2 of 2



July 17, 2009

CERTIFIED MAIL

Mr. John Essman General Manager Haverhill North Coke Company 2446 Gallia Pike Franklin Furnace, OH 45629

Re: Notice of Violation

Dear Mr. Essman:

The Fourth Quarter 2008 and First Quarter 2009 Excess Emissions Reports (EERs) for emissions units P901 & P902 have been reviewed by the Portsmouth Local Air Agency. EER summary results show that the data capture rate for the Sulfur Dioxide (SO₂) and Mercury (Hg) continuous emissions monitoring systems (CEMS) associated with these emissions units was not continuous during this time frame.

Permit to Install (PTI) 07-00511 for emissions unit P901 & P902 requires Haverhill North to operate and maintain equipment to continuously monitor and record SO₂ emissions from P901 and SO₂ and Hg emissions from P902 in accordance with the requirements of 40 CFR Part 60.13. Specifically, the monitor downtime for the SO₂ CEMS for P901& P902 for the first quarter 2009 was 34.4% (65.6 % data capture) and 15.38% (84.62 % data capture), respectively. The monitor downtime for the Hg CEMS for P902 for the fourth quarter 2008 and first quarter 2009 was 18.35% (81.65% data capture) and 11.20% (88.8% data capture), respectively.

The Portsmouth Local Air Agency considers any CEMS downtime a violation of the permit terms and conditions and Ohio Revised Code 3704.05, and the amounts of downtime reported in this time period to be excessive.

Within 14 days of receipt of this letter, please provide a written response to this letter that provides an explanation for the cause of this excessive monitor downtime; a description of the standard operating procedure that are used when a problem with the CEMS is detected, including a listing of all steps taken from the time a problem is detected until the time it is repaired; and a description of what actions will be taken to prevent a recurrence of downtime violations should also be included.

Haverhill North Coke Company July 17, 2009 Page 2

Acceptance by the Ohio EPA of this information does not constitute a waiver of the Ohio EPA's authority to seek civil penalties as provided in section 3704.06 of the Ohio Revised Code. The determination to pursue or decline such penalties in this case will be made by the Ohio EPA at a later date.

If you are unable to respond to any part of this request, within the time frame discussed above, please inform us and explain so that we may be of assistance.

If you have any questions or need additional information, please contact me at (740) 353-5156.

Sincerely,

harlos

Cindy Charles Director Portsmouth Local Air Agency

cc: John Paulian, OEPA, DAPC Lisa Holscher, USEPA Gina Harrison, USEPA

Appendix 4

Potential Middletown Redundant HRSG Project

- Pursuant to Paragraph 48 of this Consent Decree, Defendant SunCoke shall A. submit a written evaluation for the Relevant Period (the half-year between July 1 and December 31, or the half-year between January 1 and June 30, commencing on the Effective Date) of compliance at the Middletown Facility with all Bypass Venting limits contained in the Middletown Facility's permit-to-install No. P0104768 (effective February 9, 2010) ("Middletown Permit") to determine whether installation of redundancy for the HRSGs at the Middletown Facility is necessary to ensure compliance with the Middletown Permit ("Redundancy Evaluation"). This Redundancy Evaluation shall consist of the following: (1) an analysis of the causes of all Bypass Venting that has occurred at the Middletown Facility during the Relevant Period; (2) the number of hours of Bypass Venting during each Bypass Venting event and the total number of hours of Bypass Venting during the Relevant Period; (3) estimated Bypass Venting emissions during each Bypass Venting event and total Bypass Venting emissions during the Relevant Period; and (4) a discussion of whether installation of HRSG redundancy would have prevented each Bypass Venting event identified in (2) and (3). If the United States disagrees with SunCoke as to the causes of any Bypass Venting, it will notify SunCoke in writing after receipt of the Redundancy Evaluation. Any disagreement between the parties relating to the cause or causes of any Bypass Venting event shall be subject to dispute resolution under Section IX (Dispute Resolution) of this Consent Decree.
- B. HRSG Redundancy shall be required at the Middletown Facility pursuant to this Consent Decree if, for any rolling twelve-month period during the pendency of this Consent Decree, the Redundancy Evaluation indicates that the total Bypass Venting hours that could have been avoided by HRSG redundancy (as identified in subparagraph A of this paragraph) exceed 1638 stack hours (105% of the 1560 stack hours per twelve-month period of Bypass Venting emissions allowed in the Middletown Permits). In the event that redundancy is required pursuant to this Paragraph, SunCoke shall install either a Redundant HRSG or HRSGs of substantially similar design to the Redundant HRSG Project required by Section IV of the Consent Decree (Compliance Requirements), or an alternative redundancy project ("Middletown Redundancy Project") that provides at least the same level of redundancy as that provided by the Redundant HRSG Project required by Section IV of the Consent Decree (Compliance Requirements). For purposes of this Appendix 4, "redundancy" shall mean a HRSG(s) or other gas

cooling equipment that operates simultaneously with an Existing HRSG, including in the event of the loss of one of the Existing HRSGs that meets the criteria set forth in Section IV.A of this Consent Decree. Where the criteria set forth in Section IV.A of this Consent Decree differ by geographic location, the Middletown Redundancy Project will meet the criteria applicable to HNCC No. 2.

C. Should installation of the Middletown Redundancy Project be required pursuant to this Appendix, then Defendants shall complete installation and begin operation of the Redundant HRSG(s) or other substantially similar redundancy project at the Middletown Facility on or before the later of (a) December 30, 2018, or (b) twenty-seven (27) months from the date that redundancy is required by this Consent Decree.