



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

10/5/2011

Certified Mail

Mr. Terry Harris
SunCoke Energy Middletown Operations
3353 Yankee Road
Middletown, OH 45044

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1409011031
Permit Number: P0108779
Permit Type: Administrative Modification
County: Butler

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Hamilton County Dept. of Environmental Services. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
HCDOES; Indiana; Kentucky



FINAL

Division of Air Pollution Control
Permit-to-Install
for
SunCoke Energy Middletown Operations

Facility ID: 1409011031
Permit Number: P0108779
Permit Type: Administrative Modification
Issued: 10/5/2011
Effective: 10/5/2011



Division of Air Pollution Control
Permit-to-Install
for
SunCoke Energy Middletown Operations

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Authorization

Facility ID: 1409011031
Facility Description: Heat recovery coke plant
Application Number(s): M0001390
Permit Number: P0108779
Permit Description: Administrative Modification to P0104768 to clarify the description of the coal and coke handling conveyors in the permit terms and conditions.
Permit Type: Administrative Modification
Permit Fee: \$1,250.00
Issue Date: 10/5/2011
Effective Date: 10/5/2011

This document constitutes issuance to:

SunCoke Energy Middletown Operations
3353 Yankee Road
Middletown, OH 45042

of a Permit-to-Install for the emissions unit(s) identified on the following page.

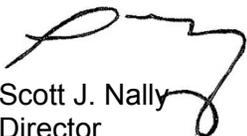
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660
(513)946-7777

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Scott J. Nally
Director



Authorization (continued)

Permit Number: P0108779

Permit Description: Administrative Modification to P0104768 to clarify the description of the coal and coke handling conveyors in the permit terms and conditions.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	F003
Company Equipment ID:	Coal Handling
Superseded Permit Number:	P0104768
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F004
Company Equipment ID:	Coke Handling
Superseded Permit Number:	P0104768
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Hamilton County Dept. of Environmental Services.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Hamilton County Dept. of Environmental Services. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Hamilton County Dept. of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Hamilton County Dept. of Environmental Services in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.



- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Hamilton County Dept. of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Hamilton County Dept. of Environmental Services.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission

limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Hamilton County Dept. of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently

removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.

C. Emissions Unit Terms and Conditions



1. F003, Coal Handling

Operations, Property and/or Equipment Description:

Coal Handling, Processing and Transfer

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-10 through 20	<p>Particulate emissions (PE) that are fugitive shall not exceed 3.47 tons per year (TPY) as a rolling, 12-month summation.</p> <p>Particulate emissions (PE) from this source shall not exceed 4.6 lbs per hour (lb/hr).</p> <p>Filterable particulate matter emissions with a diameter of 10 microns and less (PM10) that are fugitive shall not exceed 1.67 TPY as a rolling, 12-month summation.</p> <p>Visible particulate emissions that are fugitive shall not exceed 10% opacity, as a 3-minute average.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B).</p> <p>See c)(1).</p>
b.	OAC rules 3745-31-21 through 27	Filterable particulate emissions with a diameter of 2.5 microns and less (PM2.5) that are fugitive shall not exceed 0.52 TPY as a rolling, 12-month summation.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Visible particulate emissions that are fugitive shall not exceed 10% opacity, as a 3-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B). See c)(1).
c.	OAC rule 3745-17-07(B)(1)	The particulate emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-17-08(B), OAC rules 3745-31-21 through 27.
d.	OAC rule 3745-17-08(B)	Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)d. and b)(2)e.
e.	40 CFR Part 60, Subpart Y	The visible emission limitation for fugitive particulate emissions specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-17-08(B), OAC rules 3745-31-10 through 20 and OAC rules 3745-31-21 through 27.
f.	OAC rule 3745-31-05(A)(3)	See b)(2)h.

(2) Additional Terms and Conditions

- a. The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:
 - coal unloading via rail car bottom dumping
 - coal conveying via enclosed belt conveyor
 - coal transfer via enclosed belt conveyor to belt conveyor
 - coal crushing.
- b. The permittee has performed a Lowest Achievable Emission Rate (LAER) review for PM2.5. The emission limitations based on the LAER requirements are listed under OAC rules 3745-31-(21) through (27) in b)(1)b. above. It has been determined that enclosure and wet suppression control measures constitute

LAER for coal unloading in this emissions unit, enclosure and wet suppression constitute LAER for coal transfer by conveyor and enclosure and wet material constitute LAER for coal crushing.

- c. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that enclosure and wet suppression control measures constitute BACT for coal unloading in this emissions unit, enclosure and wet suppression constitute BACT for coal transfer by conveyor and enclosure and wet material constitute BACT for coal crushing. The emission limits based on the BACT requirements are listed under OAC rules 3745-31-10 through 3745-31-20 in b)(1)a. above.
- d. The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall perform the following control measure(s) to ensure compliance:

<u>material handling operation(s)</u>	<u>control measure(s)</u>
rail car bottom dumping	partial enclosure and wet material
enclosed belt conveyors and transfer points (9)	enclosure and wet material
unenclosed belt conveyors and transfer points (6)	wet material
coal crushing	total enclosure and wet material

Nothing in this paragraph shall prohibit the permittee from employing additional or alternative control measures to ensure compliance. All conveyors shall be enclosed except at points where safety related concerns are present. The permittee shall apply water in sufficient volume and frequency to maintain these operations in compliance with the opacity limitation in b)(1).

- e. For each material handling operation that is not adequately enclosed to eliminate visible emissions, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that the use of the control measure(s) is unnecessary.



- f. Compliance with the emission limitations in b) and implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-31-10 through 20 and OAC rules 3745-31-21 through 27.
- g. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- h. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) are equivalent to the pound per hour, ton per year and visible emissions limitations listed under paragraph b)(1)a and b above.

c) Operational Restrictions

- (1) The maximum annual wet coal usage rate for this emissions unit shall not exceed 912,500 based upon a rolling, 12-month summation of the wet coal usage rates.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the wet coal usage levels specified in the following table:

Month	Maximum Allowable Cumulative Production
1	77,500
1-2	152,083
1-3	228,125
1-4	304,167
1-5	380,208
1-6	456,250
1-7	532,292
1-8	608,333
1-9	684,375
1-10	760,417
1-11	836,458
1-12	912,500

After the first 12 calendar months of operation, compliance with the annual wet coal usage rate limitation shall be based upon a rolling, 12-month summation of the wet coal usage rates.

d) **Monitoring and/or Recordkeeping Requirements**

(1) The permittee shall maintain monthly records of the following information

- a. The wet coal usage rate for each month.
- b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the wet coal usage rates.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative wet coal usage rate for each calendar month.

(2) Except as otherwise provided in this section, for material handling operations that are not totally enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation(s)	minimum inspection frequency
unenclosed transfer conveyors	daily
railcar bottom dump	daily

The above-mentioned inspections shall be performed during representative, normal operating conditions.

(3) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
- c. the dates the control measure(s) was (were) implemented; and,
- d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in d)(3)d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) **Reporting Requirements**

(1) Pursuant to the NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:

Construction date (no later than 30 days after such date);



Actual start-up date (within 15 days of such date); and

Date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Hamilton County Department of Environmental Services

250 William Howard Taft Road

Cincinnati, Ohio 45219

- (2) The permittee shall submit deviation reports that identify any of the following occurrences:
- a. each day during which an inspection was not performed by the required frequency; and
 - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emission Limitation:

PE that are fugitive shall not exceed 4.6 lbs/hour nor 3.47 tpy as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the following:
 - i. Coal railcar unloading:

Multiply the maximum tons of coal processed per hour or unloaded per year, times the 0.0017 pound/ton emission factor times 0.10, assuming a 90% control efficiency for wet suppression and partial enclosure, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.
 - ii. Coal transfer points with enclosure and wet suppression:

Multiply the maximum tons of coal processed per hour or handled per year, times the number of transfer points, times the 0.0017 pound/ton emission factor times 0.05, assuming a 95% control efficiency for totally enclosed transfer points and wet suppression, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, Section 13.2.4 Equation (1) dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

iii. Unenclosed coal transfer points:

Multiply the maximum tons of coal processed per hour or handled per year, times the number of transfer points, times the 0.0017 pound/ton emission factor times the 50% control efficiency for wet suppression and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from RACM Table 2.22-3, dated 10/80.

iv. Coal screening/crushing with total enclosure and wet material:

Multiply the maximum tons of coal processed per hour or handled per year times the 0.16 pound/ton emission factor times 0.01, assuming a 99% control efficiency for total enclosure and wet material, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, 5th Edition, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from AP-40 and Ohio RACM.

b. Emission Limitation:

Visible particulate emissions shall not exceed 10% opacity as a 3-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(3).

The visible emission observations shall be performed at the appropriate non-stack egress points from this emissions unit.

c. Emission Limitation:

PM10 that are fugitive shall not exceed 1.67 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by calculating the sum of the following:

i. Coal railcar unloading

Multiply the maximum tons of coal unloaded per month, times the 0.0008 pound/ton emission factor times 0.10, assuming a 90% control efficiency for wet suppression and partial enclosure, and divide by 2,000 pounds per ton. The PM10 emission factor was calculated from AP-42, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

ii. Coal transfer points with enclosure and wet suppression

Multiply the maximum tons of coal handled per month, times the number of controlled transfer points, times the 0.0008 pound/ton emission factor times 0.05, assuming a 95% control efficiency for totally enclosed transfer points and wet suppression, and divide by 2,000 pounds per ton. The PM10 emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

iii. Unenclosed coal transfer points

Multiply the maximum tons of coal handled per month, times the number of uncontrolled transfer points, times the 0.0008 pound/ton emission factor times the 50% control efficiency for wet suppression and divide by 2,000 pounds per ton. The PM10 emission factor was calculated from AP-42, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

iv. Coal screening/crushing with total enclosure and wet material:

Multiply the maximum tons of coal handled per year times the 0.08 pound/ton emission factor times 0.01, assuming a 99% control efficiency for total enclosure and wet material, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from AP-40 and Ohio RACM.

d. Emission Limitation:

PM2.5 that are fugitive shall not exceed 0.52 ton/year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by calculating the sum of the following:

i. Coal railcar unloading

Multiply the maximum tons of coal unloaded per month, times the 0.00025 pound/ton emission factor times 0.10, assuming a 90% control efficiency for wet suppression and partial enclosure, and divide by 2,000 pounds per ton. The PM2.5 emission factor was calculated from AP-42, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

ii. Coal transfer points with enclosure and wet suppression

Multiply the maximum tons of coal handled per month, times the number of controlled transfer points, times the 0.00025 pound/ton emission factor times 0.05, assuming a 95% control efficiency for totally enclosed transfer points and wet suppression, and divide by 2,000 pounds per ton. The PM2.5 emission factor was calculated from AP-42, 5th Edition, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

iii. Unenclosed coal transfer points

Multiply the maximum tons of coal handled per month, times the number of uncontrolled transfer points, times the 0.00025 pound/ton emission factor times the 50% control efficiency for wet suppression and divide by 2,000 pounds per ton. The PM2.5 emission factor was calculated from AP-42, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

iv. Coal screening/crushing with total enclosure and wet material:

Multiply the maximum tons of coal handled per year, times the 0.024 pound/ton emission factor times 0.01, assuming a 99% control efficiency for total enclosure and wet material, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, Section 13.2.4, Equation (1) dated 11/06. The control efficiency was obtained from AP-40 and Ohio RACM.

- (2) Compliance with the requirements of c)(1) shall be demonstrated by the monitoring and record keeping required in d)(1).

g) Miscellaneous Requirements

- (1) None.



2. F004, Coke Handling

Operations, Property and/or Equipment Description:

Coke and breeze handling and processing

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-10 through 20	<p>Particulate emissions (PE) and filterable particulate matter emissions with a diameter of 10 microns and less (PM10) from the crushing/screening baghouse shall not exceed 3.43 pounds per hour.</p> <p>Particulate emissions and filterable particulate matter emissions with a diameter of 10 microns and less (PM10) from the crushing/screening baghouse shall not exceed 0.008 grain per dry standard cubic foot of exhaust gases.</p> <p>PE from the coke and breeze handling and processing shall not exceed 18.6 TPY as a rolling, 12-month summation.</p> <p>Filterable particulate matter emissions with a diameter of 10 microns and less (PM10) from the coke and breeze handling and processing shall not exceed 16.71 TPY as a rolling, 12-month summation.</p> <p>Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 10% opacity as a 3-minute average.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-07(B) and OAC rule 3745-17-08(B).</p>
b.	OAC rules 3745-31-21 through 27	<p>Filterable particulate matter emissions with a diameter of 2.5 microns and less (PM2.5) from the crushing/screening baghouse shall not exceed 3.43 pounds per hour.</p> <p>Filterable particulate matter emissions with a diameter of 2.5 microns and less (PM2.5) from the crushing/screening baghouse shall not exceed 0.008 grain per dry standard cubic foot of exhaust gases.</p> <p>Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 10% opacity as a 3-minute average.</p> <p>Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.</p> <p>Filterable particulate matter emissions with a diameter of 2.5 microns and less (PM2.5) from the coke and breeze handling and processing shall not exceed 15.55 TPY as a rolling, 12-month summation.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-07(B) and OAC rule 3745-17-08(B).</p>



c.	OAC rule 3745-17-07(A)	The particulate emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-17-08(B).
d.	OAC rule 3745-17-07(B)(1)	The particulate emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-17-08(B).
e.	OAC rule 3745-17-08(B)	Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)b. through b)(2)d.
f.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 through 20, OAC rules 3745-31-21 through 27 and OAC rule 3745-17-08(B).

(2) Additional Terms and Conditions

- a. The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:
 - coke conveying - enclosed
 - coke conveying - unenclosed
 - coke breeze silo
 - crushing/screening baghouse
 - coke loading – railcars and/or trucks
- b. The permittee has performed a Lowest Achievable Emission Rate (LAER) review for PM2.5. The emission limitations based on the LAER requirements are listed under OAC rules 3745-31-(21) through (27) in b)(1)b. above. It has been determined that enclosure and wet suppression control measures constitute LAER for coke being transferred by belt conveyor at this emissions unit and enclosure and fabric filter control measures constitute LAER for coke screening and crushing.
- c. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that enclosure and wet suppression control measures constitute BACT for coke being transferred by belt conveyor at this emissions unit and enclosure and fabric filter control measures constitute BACT for coke



screening and crushing. The emission limits based on the BACT requirements are listed under OAC rules 3745-31-10 through 3745-31-20 in b)(1)a. above.

- d. The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall perform the following control measure(s) to ensure compliance:

Table with 2 columns: Material handling operation(s) and Control measure(s). Rows include coke crushing/screening (fabric filter), coke conveying - enclosed (enclosure, wet material), coke conveying - partially enclosed (enclosure, dry material), coke conveying - unenclosed (wet material), coke breeze silo (enclosure, wet material), and coke loading of railcars and trucks (wet material).

Nothing in this paragraph shall prohibit the permittee from employing additional or alternative control measures to ensure compliance.

- e. For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that the use of the control measure(s) is unnecessary.

Compliance with the emission limitations in section b) and implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-31-10 through 20 and OAC rules 3745-31-21 through 27 and the requirements OAC rule 3745-31-05(A)(3).

- c) Operational Restrictions
(1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate and maintain equipment to continuously monitor the pressure drop, in inches of water, across the coke crushing/screening baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the coke crushing/screening baghouse once per each shift of operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the limit or range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The range or limit of 3 to 12 inches of water on the pressure drop across the coke crushing/screening baghouse is effective for the duration of this permit, unless revisions

are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

Material-handling operation(s)	Minimum inspection frequency
coke loading of railcars and trucks	daily
coke conveying via belt conveyors	daily
coke transfer points (belt conveyor to belt conveyor and crusher to belt conveyor)	daily

The above-mentioned inspections shall be performed during representative, normal operating conditions.

If the daily checks show emissions that are representative of normal operation for 30 consecutive operating days, the required frequency of visible emissions checks may be reduced to weekly (once per week, when the emissions unit is in operation). If a subsequent check indicates abnormal visible emissions, the frequency of emissions checks shall revert to daily until such time as there are 30 consecutive operating days of normal visible emissions.

- (2) The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was not performed;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
 - c. the dates the control measure(s) was (were) implemented; and,
 - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in d)(2)d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the coke crushing/screening baghouse during the operation of the emissions unit(s):
 - a. each period of time when the pressure drop across the baghouse was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - b. an identification of each incident of deviation described in [a] (above) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in [a] where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in [a] where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

- (2) The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency; and,
 - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

These deviation (excursion) reports are due by the dates described in the Standard Terms and Conditions of this permit.

f) Testing Requirements

- (1) Emission testing requirements

The permittee shall conduct, or have conducted, emission testing for the crushing/screening baghouse in accordance with the following requirements:

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PE limits.

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- (2) Compliance with the emission limitation(s) in b) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

PE/PM10/PM2.5 emissions from the crushing/screening baghouse shall not exceed 3.43 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(10).

The 3.43 pound per hour limit for PE was determined by multiplying the emission factor (grain loading) of 0.008 gr/dscf times 1 pound divided by 7000 grains times airflow of 50,000 scfm times 60 minutes per hour. The emission factor for PE was used as a surrogate for PM10 and PM2.5 where PM10 and PM2.5 factors

were not available. The 0.008 gr/dscf emissions factor for PE is a controlled emissions factor provided as an engineering estimate by the permittee.

b. Emission Limitation:

PE shall not exceed 18.6 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of the following:

i. Totally enclosed coke transfer points

Multiply the maximum tons of coke handled per year per each conveyor times the 0.00169 pound/ton emission factor times 0.05, assuming a 95% control efficiency for the full enclosures and wet material, and divide by 2,000 pounds per ton.

The particulate emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

ii. Partially enclosed coke transfer points and coke loadout / wet material

Multiply the maximum tons of coke handled per year per each transfer point times the 0.00169 pound/ton emission factor times 0.15 assuming 85% control efficiency for the partial enclosures and wet material and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06.

iii. Partially enclosed coke transfer points / dry material

Multiply the maximum tons of coke handled per year per each transfer point times the 0.00169 pound/ton emission factor times 0.5 assuming 50% control efficiency for the partial enclosure and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06.

iv. Unenclosed coke transfer points / dry material

Multiply the maximum tons of coke handled per year times the 0.00169 pound/ton emission factor and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42 5th, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

v. Coke breeze silo / partially enclosed bunker

Multiply the maximum tons of coke breeze handled per year times 2, the number of transfer points (load-out and load-in), times the 0.00169 pound/ton emission factor times 0.15, assuming an 85% control efficiency

for the partial enclosure and wet material, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

vi. Crushing/screening baghouse

An emission rate, in terms of pounds per ton of coke shall be calculated from the hourly rate of particulate emissions determined in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(10). Multiply the emission rate in pounds per ton times the throughput, in tons, and divide by 2,000 pounds per ton.

c. Emission limitation:

Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(3).

d. Emission Limitation:

Visible particulate emissions from the crushing/screening baghouse shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

e. Emission Limitation:

PE from the crushing/screening baghouse shall not exceed 0.008 grain per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(10).

Note: PE was used as a surrogate for PM10 and PM2.5 for purposes of compliance with both the PM10 and PM2.5 fractions of PE.

f. Emission Limitation:

PM₁₀ shall not exceed 16.71 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by calculating the sum of the following:

i. Totally enclosed coke transfer points

Multiply the maximum tons of coke handled per year per each conveyor times the 0.0008 pound/ton emission factor times 0.05, assuming a 95% control efficiency for complete enclosure and wet material, and divide by 2,000 pounds per ton.

The PM₁₀ emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

ii. Partially enclosed coke transfer points and coke loadout / wet material

Multiply the maximum tons of coke handled per year per each transfer point times the 0.0008 pound/ton emission factor times 0.15 assuming 85% control efficiency for the partial enclosures and wet material and divide by 2,000 pounds per ton. The PM₁₀ emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06.

iii. Partially enclosed coke transfer points / dry material

Multiply the maximum tons of coke handled per year per each transfer point times the 0.0008 pound/ton emission factor times 0.5 assuming 50% control efficiency and divide by 2,000 pounds per ton. The PM₁₀ emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06.

iv. Unenclosed coke transfer points / dry material

Multiply the maximum tons of coke handled per year times the 0.0008 pound/ton emission factor and divide by 2,000 pounds per ton. The PM₁₀ emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

v. Coke breeze silo / partially enclosed bunker

Multiply the maximum tons of coke breeze handled per year times 2, the number of transfer points (load-out and load-in), times the 0.0008 pound/ton emission factor times 0.15, assuming a 85% control efficiency for partial enclosure and wet material, and divide by 2,000 pounds per

ton. The PM10 emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

vi. Crushing/screening baghouse

The emission factor for PE was used as a surrogate for PM10 and PM2.5 where PM10 and PM2.5 factors were not available. An emission rate, in terms of pounds per ton of coke shall be calculated from the hourly rate of particulate emissions determined in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(10). Multiply the emission rate in pounds per ton times the throughput, in tons, and divide by 2,000 pounds per ton.

g. Emission Limitation:

PM2.5 shall not exceed 15.55 TPY as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by calculating the sum of the following:

i. Totally enclosed coke transfer points

Multiply the maximum tons of coke handled per year per each conveyor times the 0.00025 pound/ton emission factor times 0.05, assuming a 95% control efficiency for total enclosure and wet material, and divide by 2,000 pounds per ton.

The PM2.5 emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

ii. Partially enclosed coke transfer points and coke loadout / wet material

Multiply the maximum tons of coke handled per year per each transfer point times the 0.00025 pound/ton emission factor times 0.15 assuming 85% control efficiency for the partial enclosures and wet material and divide by 2,000 pounds per ton. The PM2.5 emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06.

iii. Partially enclosed coke transfer points / dry material

Multiply the maximum tons of coke handled per year per each transfer point times the 0.00025 pound/ton emission factor times 0.5 assuming 50% control efficiency for the partial enclosures and wet material and divide by 2,000 pounds per ton. The PM2.5 emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06.

iv. Unenclosed coke transfer points / dry material

Multiply the maximum tons of coke handled per year times the 0.00025 pound/ton emission factor and divide by 2,000 pounds per ton. The PM2.5 emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

v. Coke breeze silo / partially enclosed bunker

Multiply the maximum tons of coke breeze handled per year times 2, the number of transfer points (load-out and load-in), times the 0.00025 pound/ton emission factor times 0.15, assuming an 85% control efficiency for partial enclosure and wet material, and divide by 2,000 pounds per ton. The PM2.5 emission factor was calculated from AP-42, Section 13.2.4, Equation (1), dated 11/06. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

vi. Crushing/screening baghouse

The emission factor for PE was used as a surrogate for PM10 and PM2.5 where PM10 and PM2.5 factors were not available. An emission rate, in terms of pounds per ton of coke shall be calculated from the hourly rate of particulate emissions determined in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(10). Multiply the emission rate in pounds per ton times the throughput, in tons, and divide by 2,000 pounds per ton.

g) Miscellaneous Requirements

(1) None.