John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

10/27/2014

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
Yes	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

Kris Singleton
SunCoke Energy Middletown Operations
3353 Yankee Road
Middletown, OH 45042

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1409011031
Permit Number: P0117561
Permit Type: Administrative Modification
County: Butler

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Journal News. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777.

Sincerely,

Erica R. Engel-Ishida, Interim Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 -*Via E-Mail Notification*
SWOAQA; Indiana; Kentucky

Permit Strategy Write-Up

1. Check all that apply:

   Synthetic Minor Determination
   Netting Determination

2. Source Description:

   SunCoke Energy Middletown Operations (MTO) is coke manufacturing facility with 100 non-recovery type ovens. Coal charging, coking and coke pushing are considered emissions unit P901. When it was first installed there were no specific limits for controlled mercury emissions from P901. Rather the original Permit To Install, P0104768, for P901 required that powered activated carbon (PAC) be injected into gasses generated during coking to control mercury emissions at an injection rate of 10 pounds dry PAC per million cubic feet of flue gas or that the PAC injection system achieve a 90% mercury removal efficiency. PTI P0104768 stated that Ohio EPA would set mercury emissions limits after at least six months worth of data was collected.

   MTO found that they were unable to achieve the mercury control objectives using PAC injection. 10 pounds dry PAC per million cubic feet of flue gas is approximately 230 pounds per hour of dry PAC injection. MTO found that even at dry PAC injection rates as low as 13 pounds per hour, the SO2 removal efficiency of their flue gas desulfurization system was compromised and violations of their SO2 limits were possible.

   As discussed in MTO's Evaluation Report, submitted to SWOAQA on July 29, 2014, a hydrated activated carbon (HAC) system was tested and found to be a feasible method for removing mercury from flue gas without causing SO2 exceedance issues. This Administrative Modification request seeks a permit revision to incorporate the findings of the Evaluation Report into PTI P01401768. That is, to allow the PAC system requirement to be replaced by the HAC system.

   Additionally, the facility requested a minor change in P901 terms and conditions relating to the allowable baghouse pressure drop range. Specifically, right after the filters are changed in the baghouse, the pressure drop can be as low as 2 inches of water without there being a reduced control efficiency. The facility requests that the allowable pressure range be changed from 3-12 inches of water to 2-12 inches of water.

3. Facility Emissions and Attainment Status:

   2013 annual facility emissions were 10 tons of PE, 831 tons of SO2, 226 tons of NOx, 1.6 tons of VOC/OCs and 0.0545 tons of mercury. MTO is located in Butler County, Ohio, which is currently non-attainment for ozone (8-hour standard) and attainment for all other criteria pollutants. MTO is a major source of ozone and nonattainment provisions in OAC 3745-31-(21-27) apply to PM2.5, to NOx as an ozone precursor, and to SO2 as a PM2.5 precursor.

4. Source Emissions:

   Source emissions are the same as facility emissions except for Particulate Emissions. Source PE emissions are 10 tpy. Most of the emissions units at MTO aside from P901 have only particulate emissions.

5. Conclusion:

   There were no controlled mercury emissions limitations before the Administrative Modification so there is no increase in allowable emissions. The local agency recommends that the PTI should be modified as requested.

6. Please provide additional notes or comments as necessary:

   None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

   No increase in emissions

Butler County

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install
SunCoke Energy Middletown Operations

Issue Date: 10/27/2014
Permit Number: P0117561
Permit Type: Administrative Modification
Permit Description: Administrative Modification to PTI P0104768 to incorporate Hydrated Activated Carbon injection system for mercury control
Facility ID: 1409011031
Facility Location: SunCoke Energy Middletown Operations
3353 Yankee Road,
Middletown, OH 45042
Facility Description: All Other Petroleum and Coal Products Manufacturing

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: http://epa.ohio.gov/dapc/permitsonline.aspx by entering the permit # or: Paul Tedtman, Southwest Ohio Air Quality Agency, 250 William Howard Taft Rd., Cincinnati, OH 45219. Ph: (513)946-7777

DRAFT

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

Facility ID:	1409011031
Permit Number:	P0117561
Permit Type:	Administrative Modification
Issued:	10/27/2014
Effective:	To be entered upon final issuance

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):	M0002921
Permit Number:	P0117561
Permit Description:	Administrative Modification to PTI P0104768 to incorporate Hydrated Activated Carbon injection system for mercury control
Permit Type:	Administrative Modification
Permit Fee:	$625.00*DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	10/27/2014
Effective Date:	To be entered upon final issuance

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 Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(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

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0117561
Permit Description: Administrative Modification to PTI P0104768 to incorporate Hydrated Activated Carbon injection system for mercury control

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

Emissions Unit ID:	**P901**
Company Equipment ID:	Coke Battery
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) 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 Southwest Ohio Air Quality Agency.

(2) Quarterly written reports of (i) any deviations from federally enforceable emissionlimitations, operationalrestrictions, andcontroldeviceoperatingparameterlimitations, 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 Southwest Ohio Air Quality Agency. The written reports shall be submitted 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, andreportingrequirements contained in this permit shall be submitted to the Southwest Ohio Air Quality Agency 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 theSouthwest Ohio Air Quality Agencyin 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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

b) 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.

c) The permittee shall submit progress reports to the Southwest Ohio Air Quality Agency 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 Southwest Ohio Air Quality Agency.

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 theSouthwest Ohio Air Quality Agency. 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, 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)not exempt from the requirement to obtain a Permit-to-Install.

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 permittee 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 "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director 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.

Unless otherwise exempted,no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

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 operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d)must be obtained beforeoperating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

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

a) Completion of initial installation date shall be enteredupon 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 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. P901, Coke Battery

Operations, Property and/or Equipment Description:

Heat Recovery Coke Battery including Charging, Main Stack, Waste Heat Stack and Pushing emissions

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.	40 CFR Part 63, Subpart A (40 CFR 63.1-15	The following citations of the General Provisions of 40 CFR Part 63 apply to operations subject to 40 CFR Part 63 Subpart L: 40 CFR 63.1-6, 63.8, 63.10, and 63.12-15. Table 1 to 40 CFR Part 63 Subpart CCCCC shows which parts of the General Provisions of 40 CFR Part 63 apply to operations subject to 40 CFR Part 63 Subpart CCCCC.
b.	OAC rule 3745-31-05(E)	Lead emissions shall not exceed 0.28 TPY as a rolling 12-month summation for emissions units P001 and P901 combined.
	(Coal charging operations with baghouse and traveling hood)	
c.	OAC rules 3745-31-10 through 20 *Prevention of Significant Deterioration* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the BACT limits)	PE and filterable PM_{10} shall not exceed 0.0081 pound per ton of dry coal charged, 3.7 pounds per hour, and 3.4 TPY as a rolling, 12-month summation from the charging baghouse. Fugitive PE from charging shall not exceed 1.35pounds per hour and 1.23 TPY as a rolling, 12-month summation.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Fugitive PM_{10} emissions from charging shall not exceed 0.41 pound per hour and 0.37 TPY as a rolling, 12-month summation. SO_2 emissions from the charging baghouse shall not exceed 0.0003 pound per ton of coal charged, 0.15 lb./hr, and 0.14 TPY as a rolling, 12-month summation. CO emissions from the charging baghouse shall not exceed 0.0028 pound per ton of coal charged, 1.4 lb/hr, and 1.28 TPY as a rolling, 12-month summation. Visible particulate emissions from the charging baghouse stack shall not exceed 10% opacity as a 6-minute average. Visible particulate emissions of fugitive dust from charging operations shall not exceed 20% opacity, as an average of five consecutive charges. See b)(2)b. – b)(2)e. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-07(B), 3745-17-08(B) and 40 CFR Part 63, Subpart L.
d.	OAC rules 3745-31-21 through 27 *Nonattainment New Source Review* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the LAER limits)	Filterable $PM_{2.5}$ shall not exceed 0.0081 pound per ton of dry coal charged, 3.7 pounds per hour, and 3.4 TPY as a rolling, 12-month summation from the charging baghouse. Fugitive $PM_{2.5}$ emissions from charging shall not exceed 0.20 pound per hour and 0.18 TPY as a rolling, 12-month summation. SO_2 emissions from the charging baghouse shall not exceed 0.0003 pound

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		per ton of coal charged, 0.15 lb/hr, and 0.14 TPY as a rolling, 12-month summation. Visible particulate emissions from the charging baghouse stack shall not exceed 10% opacity as a 6-minute average. Visible particulate emissions of fugitive dust from charging operations shall not exceed 20% opacity, as an average of five consecutive charges. See b)(2)a. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-07(B), 3745-17-08(B) and 40 CFR Part 63, Subpart L.
e.	OAC rule 3745-31-05(A)(3) *Best Available Technology*	VOC emissions from the charging baghouse shall not exceed 1.0 lb/hr and 0.91 TPY. 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, OAC rule 3745-17-08(B), and 40 CFR Part 63, Subpart L
f.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
g.	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
h.	OAC rule 3745-17-08(B)	The permittee shall minimize visible emissions of fugitive dust.
i.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
j.	**40 CFR Part 63, Subpart L** **(40 CFR 63.300-313)**	PE emissions from the charging baghouse stack shall not exceed 0.0081 pound per ton (lb/ton) of dry coal charged as determined by the procedures in 40

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	National Emission Standards for Coke Oven Batteries [In accordance with 40 CFR 63.300(b) and 63.301, this emissions unit is a greenfield nonrecovery coke oven battery subject to the emission limitations/control measures specified in this section.]	CFR 63.309(k). For each day of operation, the permittee shall implement the work practices specified in 40 CFR 63.306(b)(6) and record the performance of the work practices as required in 40 CFR 63.306(b)(7). Except as provided in 40 CFR 63.304, the permittee shall observe the exhaust stack of each charging emissions control device at least once each day of operation during charging to determine if visible emissions are present and shall record the results of each daily observation or the reason why conditions did not permit a daily observation. If any visible emissions are observed, the permittee must following the procedures specified in 40 CFR 63.303(d)(3). The permittee shall develop and implement written procedures for adjusting the oven uptake damper to maximize oven draft during charging and for monitoring the oven damper setting during each charge to ensure that the damper is full open. See b)(2)f. through b)(2)h.
	(Coking operations with heat recovery steam generators and lime spray dryer/baghouse system)	
k.	OAC rules 3745-31-10 through 20 *Prevention of Significant Deterioration* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the BACT limits) These limits are applicable during	Filterable PM and PM_{10} shall not exceed 0.0050 gr/dscf, 10.7 pounds per hour, and 46.9 TPY as a rolling, 12-month summation. SO_2 emissions shall not exceed 300 lbs/hr (based on a 3-hour block average); 192.0 lbs/hr (based on a 24-hour block average); and 700.8 TPY (1.54 lbs of SO_2/wet ton of coal) as a rolling, 12-month summation.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	normal operation (non-bypass of the lime spray dryer/baghouse system) and apply to the exhaust from the main stack.[1]	CO emissions shall not exceed 20 ppm, 21.81 lbs/hr and 95.54 TPY as a rolling, 12-month summation. NOx emissions shall not exceed 1 pound per ton of coal, 104.2 lbs/hr and 456.25 TPY as a rolling, 12-month summation. The annual emission limitation shall include NOx emissions from the main stack after passing through the lime spray dryer/fabric filter and during maintenance of the lime spray dryer/fabric filter, combined. Sulfuric acid mist (H_2SO_4) emissions shall not exceed 0.024 pound per ton of coal, 2.5 lbs/hr, and 11.13 TPY as a rolling 12-month summation. Visible particulate emissions from the lime spray dryer baghouse stack shall not exceed 10% opacity as a 6-minute average. No visible emissions shall be permitted from the common battery tunnel or its associated piping. The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subparts L and CCCCC. See b)(2)b. through b)(2)e., b)(2)l., b)(2)n., b)(2)o., and c)(1) through c)(10), c)(13), c)(14).
I.	OAC rules 3745-31-10 through 20 *Prevention of Significant Deterioration* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the BACT limits)	Filterable PM and PM_{10} shall not exceed 0.049 gr/dscf and 6.3 TPY as a rolling, 12-month summation from the main stack when the lime spray dryer/baghouse is bypassed. SO_2 emissions shall not exceed 1794 lbs/hour and 107.64 TPY as a rolling, 12-month summation when the lime spray dryer/baghouse is bypassed.

[1] The "main stack" is the lime spray dryer/baghouse main stack. During normal operations, the emissions have been controlled by the lime spray dryer/baghouse system. During maintenance of the lime spray dryer/baghouse system, the lime spray dryer/baghouse system is bypassed, but a portion of the exhaust is still routed to the "main stack".

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	These limits are applicable during bypass of the lime spray dryer/baghouse system and apply to the exhaust from the main stack and the HRSG bypass stacks.	CO emissions shall not exceed 20 ppm and 1.31 TPY as a rolling, 12-month summation from the main stack when the lime spray dryer/baghouse is bypassed. NOx emissions shall not exceed 1 lb/ton of coal and 6.25 TPY as a rolling, 12-month summation from the main stack when the lime spray dryer/baghouse is bypassed. Sulfuric acid mist (H_2SO_4) emissions shall not exceed 91.5 lbs/hour and 5.49 TPY as a rolling 12-month summation the main stack when the lime spray dryer/baghouse is bypassed. Visible particulate emissions from the main stack shall not exceed 20% opacity as a 6-minute average when the lime spray dryer/baghouse is bypassed. No visible emissions shall be permitted from the common battery tunnel or its associated piping. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), 40 CFR Part 63, Subparts L and CCCCC. See b)(2)b. through b)(2)e., b)(2)l., b)(2)n., b)(2)o., and c)(1) through c)(10), c)(13), c)(14).
m.	OAC rules 3745-31-21 through 27 *Nonattainment New Source Review* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the LAER limits) These limits are applicable during normal operation (non-bypass of the lime spray dryer/baghouse system) and apply to the exhaust from the main stack.	Filterable $PM_{2.5}$ shall not exceed 0.005 gr/dscf, 10.7 pounds per hour, and 46.9 TPY as a rolling, 12-month summation. SO_2 emissions shall not exceed 300 lbs/hr (based on a 3-hour block average); 192.0 lbs/hr (based on a 24-hour block average); and 700.8 TPY as a rolling, 12-month summation (1.54 lbs/wet ton of coal as an annual average). NOx emissions shall not exceed 1 pound per ton of coal, 104.2 lbs/hr and 456.25

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		TPY as a rolling, 12-month summation. The annual emission limitation shall include NOx emissions from the main stack after passing through the lime spray dryer/fabric filter and during maintenance of the lime spray dryer/fabric filter, combined. Visible particulate emissions from the lime spray dryer baghouse stack shall not exceed 10% opacity as a 6-minute average. No visible emissions shall be permitted from the common battery tunnel or its associated piping. The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subparts L and CCCCC. See b)(2)a., b)(2)l., b)(2)n., b)(2)o., and c)(1) through c)(10), c)(13), c)(14).
n.	OAC rules 3745-31-21 through 27 *Nonattainment New Source Review* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the LAER limits) These limits are applicable during bypass of the lime spray dryer/baghouse system and apply to the exhaust from the main stack and the HRSG bypass stacks.	Filterable $PM_{2.5}$ shall not exceed 0.049 gr/dscf and 6.3 TPY as a rolling, 12-month summation from the main stack when the lime spray dryer/baghouse is bypassed. SO_2 emissions shall not exceed 1794 lbs/hour and 107.64 TPY as a rolling, 12-month summation when the lime spray dryer/baghouse is bypassed. NOx emissions shall not exceed 1 lb/ton of coal and 6.25 TPY as a rolling, 12-month summation from the main stack when the lime spray dryer/baghouse is bypassed. Visible particulate emissions from the main stack shall not exceed 20% opacity as a 6-minute average when the lime spray dryer/baghouse is bypassed. No visible emissions shall be permitted from the common battery tunnel or its associated piping.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), 40 CFR Part 63, Subparts L and CCCCC. See b)(2)a., b)(2)l., b)(2)n., b)(2)o., and c)(1) through c)(10), c)(13), c)(14).
o.	OAC rule 3745-31-05(A)(3) *Best Available Technology* These limits are applicable during normal operation (non-bypass of the lime spray dryer/baghouse system) and apply to the exhaust from the main stack.	VOC emissions shall not exceed 4.67 lbs/hr and 20.47 TPY. Hydrochloric acid (HCl) emissions shall not exceed 14.8 lbs/hr and 64.79 TPY. 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, OAC rule 3745-17-08(B), and 40 CFR Part 63, Subparts L and CCCCC. Mercury emissions shall not exceed 0.01 pounds per hour as a 1-month average and 55.5 pounds per rolling, 12-month summation period from the main stack, except when the lime spray dryer/baghouse is bypassed. See b)(2)k. and b)(2)m.
p.	OAC rule 3745-31-05(A)(3) *Best Available Technology* These limits are applicable during bypass of the lime spray dryer/baghouse system and apply to the exhaust from the main stack.	VOC emissions shall not exceed 0.28 TPY from the main stack when the lime spray dryer is bypassed. Hydrochloric acid (HCl) emissions shall not exceed 17.75 TPY from the main stack when the lime spray dryer is bypassed. 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, OAC rule 3745-17-08(B), and 40 CFR Part 63, Subparts L and CCCCC. See b)(2)k.
q.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		limitation established pursuant to OAC rule 3745-31-05(A)(3).
r.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
s.	OAC rule 3745-18-06(E)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
t.	40 CFR Part 63, Subpart L (40 CFR 63.300-313) *National Emission Standards for Coke Oven Batteries* [In accordance with 40 CFR 63.300(b) and 63.301, this emissions unit is a greenfield nonrecovery coke oven battery subject to the emission limitations/control measures specified in this section.]	See b)(2)f. through b)(2)h.
u.	40 CFR Part 63, Subpart CCCCC (40 CFR 63.7280 -7352) *National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks* [In accordance with 40 CFR 63.7282, this emissions unit is a new coke oven battery subject to the emission limitations/control measures specified in this section.]	See b)(2)j.
	Waste gas from the coking process HRSG bypassstacks[2]	
v.	OAC rules 3745-31-10 through 20 *Prevention of Significant Deterioration* OAC rule 3745-31-05(A)(3) *Best Available Technology*	Filterable PE and PM_{10} emissions shall not exceed 21.0 pounds per hour from a single HRSG bypass stack (0.049 gr/dscf), and 10.1 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation.

[2] The "HRSG bypass stacks" are the stacks located just prior to the HRSGs. These stacks are used during maintenance of the HRSGs or are used to safely vent gasses under an emergency situation. Under normal operation, they are closed such that no gas is vented.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(these limits are the same as the BACT limits)	SO_2 emissions shall not exceed 498.33 pounds per hour from a single HRSG bypass stack as a 3 hour block average(23.92 lbs/ton of coal),and 239.2 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. NOx emissions shall not exceed 20.8 pounds per hour from a single HRSG bypass stack (1 lb/ ton of coal), and 10.0 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. CO emissions shall not exceed 4.36 pounds per hour from a single HRSG bypass stack (20 ppm), and 2.09 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. Sulfuric acid mist (H_2SO_4) emissions shall not exceed 25.4 lbs/hr from a single HRSG bypass stack, and 12.20 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. See b)(2)b. – b)(2)e. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), 40 CFR Part 63, Subparts L and CCCCC.
w.	OAC rules 3745-31-21 through 27 *Nonattainment New Source Review* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the LAER limits)	Filterable $PM_{2.5}$ emissions shall not exceed 21.0 pounds per hour from a single HRSG bypass stack (0.049 gr/dscf), and 10.1 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. SO_2 emissions shall not exceed 498.33 pounds per hour from a single HRGS bypass stack as a 3 hour block average(23.92 lb/ton of coal),and 239.2 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		NOx emissions shall not exceed 20.8 pounds per hour from a single HRSG bypass stack (1 lb/ ton of coal), and 10.0 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. See b)(2)a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), 40 CFR Part 63, Subparts L and CCCCC.
x.	OAC rule 3745-31-05(A)(3) *Best Available Technology*	VOC emissions shall not exceed 0.93 pound per hour from a single HRSG bypass stack and 0.45 TPY from all HRSG bypass stacks combined. Hydrochloric acid (HCl) emissions shall not exceed 59.17 pounds per hour from a single HRSG bypass stack and 28.4 TPY from all HRSG bypass stacks combined. Lead (Pb) emissions shall not exceed 0.055 TPY from all HRSG bypass stacks combined. Mercury (Hg) emissions shall not exceed 0.0069 pound per hour from a single HRSG bypass stack. Mercury emissions shall not exceed 12.4 pounds per rolling, 12-month summation period from all HRSG bypass stacks and from the main stack during bypass of the lime spray dryer/fabric filter, combined. Mercury emissions during hydrated activated carbon (HAC) maintenance and downtime shall be included in the rolling, 12-month summation total. 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, OAC rule 3745-

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		17-08(B), and 40 CFR Part 63, Subparts L and CCCCC.
y.	OAC rule 3745-17-07(A)	Visible particulate emissions from each waste heat stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
z.	OAC rule 3745-17-11(B)	The emission limitation specified by this rules is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
aa.	OAC rule 3745-18-06(E)(2)	The emission limitation specified by this rules is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
bb.	40 CFR Part 63, Subpart L (40 CFR 63.300-313) *National Emission Standards for Coke Oven Batteries* [In accordance with 40 CFR 63.300(b) and 64.301, this emissions unit is a greenfield nonrecovery coke oven battery subject to the emission limitations/control measures specified in this section.]	See b)(2)f. through b)(2)h.
cc.	40 CFR Part 63, Subpart CCCCC (40 CFR 63.7280-7352) *National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks* [In accordance with 40 CFR 63.7282, this emissions unit is a new coke oven battery subject to the emission limitations/control measures specified in this section.]	See b)(2)j.
	Pushing operations with flat push hot car vented to multiclone dust collector	

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
dd.	OAC rules 3745-31-10 through 20 *Prevention of Significant Deterioration* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the BACT limits)	Filterable PE and PM_{10} emissions shall not exceed 0.04 pound per ton of coke pushed, 14.3 pounds per hour and 13.09 TPY as a rolling, 12-month summation. SO_2 emissions shall not exceed 0.098 pound per ton of coal charged, 49.0 pounds per hour, and 44.71 TPY as a rolling, 12-month summation. NOx emissions shall not exceed 0.019 pound per ton of coal charged, 9.5 pounds per hour, and 8.67 TPY as a rolling, 12-month summation. CO emissions shall not exceed 0.063 pound per ton of coal charged, 31.5 pounds per hour, and 28.74 TPY as a rolling, 12-month summation. Sulfuric acid mist (H_2SO_4) emissions shall not exceed 0.005 pound per ton of coal charged, 2.5 pounds per hour, and 2.28 TPY as a rolling 12-month summation. See b)(2)b. – b)(2)e. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08(B), and 40 CFR Part 63, Subpart CCCCC.
ee.	OAC rules 3745-31-21 through 27 *Nonattainment New Source Review* OAC rule 3745-31-05(A)(3) *Best Available Technology* (these limits are the same as the LAER limits)	Filterable $PM_{2.5}$ emissions shall not exceed 0.04 pound per ton of coke pushed, 14.3 pounds per hour, and 13.09 TPY as a rolling, 12-month summation. SO_2 emissions shall not exceed 0.098 pound per ton of coal charged, 49.0 pounds per hour, and 44.71 TPY as a rolling, 12-month summation. NOx emissions shall not exceed 0.019 pound per ton of coal charged, 9.5 pounds per hour, and 8.67 TPY as a rolling, 12-month summation.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)a. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08(B), and 40 CFR Part 63, Subpart CCCCC.
ff.	OAC rule 3745-31-05(A)(3) *Best Available Technology*	VOC emissions shall not exceed 10.0 pounds per hour and 9.13 TPY. 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, OAC rule 3745-17-08(B), and 40 CFR Part 63, Subpart CCCCC.
gg.	OAC rule 3745-17-07(A)	Visible particulate emissions from the flat push hot car vented to multiclone dust collector stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
hh.	OAC rule 3745-17-08(B)	The permittee shall minimize visible emissions of fugitive dust.
ii.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
jj.	40 CFR Part 63, Subpart CCCCC (40 CFR 63.7280-7352) *National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks* [In accordance with 40 CFR 63.7282, this emissions unit is a new coke oven battery subject to the emission limitations/control measures specified in this section.]	Particulate emissions from the flat push hot car vented to multiclone dust collector exhaust shall not exceed 0.04 lb of PE/ton of coke per 40 CFR 63.7290(a)(4). Maintain daily average fan motor amperes at or above minimum motor amperes establish during the initial performance test per 40 CFR 63.7290(b)(3)(i) or maintain the daily average volumetric flow rate at the inlet of the control device at or above the minimum level established during the initial performance test per 40 CFR 63.7290(b)(3)(ii). Maintain the daily average pressure drop of the multiclone at or below the minimum level established during the initial

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		performance test per 40 CFR 63.7290(b)(4). See b)(2)j.

(2) Additional Terms and Conditions

a. The permittee has performed a Lowest Achievable Emission Rate (LAER) review for $PM_{2.5}$, SO_2 and NOx. The emission limitations based on the LAER requirements are listed under OAC rules 3745-31-21 through 3745-31-27 in b)(1)d., b)(1)m., b)(1)n., b)(1)w. and b)(1)ee. above. The controls and practices that constitute LAER also meet the BAT requirements of 3745-31-05(A)(3).

i. It has been determined that the following control measures constitute LAER for $PM_{2.5}$ from this emissions unit.

(a) $PM_{2.5}$ emissions from the main stack shall be controlled with a fabric filter. The filter material in the filter system for the main stack shall be a membrane material, micro-fiber material, micro-fiber capped composite material or other similar filter material that has enhanced performance for collection of fine particulate.

(b) $PM_{2.5}$ emissions from coking during Heat Recovery Steam Generator (HRSG) maintenance shall be minimized by limiting the HRSG maintenance to one HRSG at a time, except during the annual shut down of the spray dryer/fabric filter when the permittee shall perform preventive maintenance of up to two HRSG during the same maintenance period as for the spray dryer/fabric filter;by limiting the time when coking gases are not controlled by the spray dryer/fabric filter system to 1560 stack-hours[3] per 12-month rolling period; and by following good work practices defined as the combustion of flue gases in sole flues and the common tunnel afterburner.

(c) $PM_{2.5}$ emissions from coking during lime spray dryer/fabric filter control maintenance shall be minimized by limiting the annual maintenance to no more than five days per year; and by following good work practices defined as the combustion of flue gases in sole flues and the common tunnel afterburner.

(d) $PM_{2.5}$ emissions from coke pushing shall be controlled through a flat pushing operation controlled by a multiclone.

(e) $PM_{2.5}$ emissions from coal charging shall be controlled by the use of a travelling hood and a fabric filter.

[3] One stack-hour is equivalent to the exhaust from one HRSG being emitted to the atmosphere without being controlled by the scrubber/baghouse control system for one hour.

ii. It has been determined that the following control measures constitute LAER for SO_2 emissions from this emissions unit.

(a) SO_2 emissions from the main stack shall be controlled with the use of a lime spray dryer/fabric filter with a manufacturer's design control efficiency of 92% on a 24-hour basis for SO_2 control.

(b) SO_2 emissions from coking during Heat Recovery Steam Generator (HRSG) maintenance shall be minimized by limiting the HRSG maintenance to one HRSG at a time, except during the annual shut down of the spray dryer/fabric filter when the permittee shall perform preventive maintenance of up to two HRSGs during the same maintenance period as for the spray dryer/fabric filter; andby limiting the time when coking gases are not controlled by the spray dryer/fabric filter system to 1560 stack-hours per 12-month rolling period. The SO_2 emissions from the coke ovens affected by the shutdown of a HRSG during planned HRSG maintenance shall be reduced by 28 percent consistent with the facility's Startup Shutdown andMalfunction (SSM) plan for the spray dryer/fabric filter maintenance.

(c) SO_2 emissions from coking during lime spray dryer/fabric filter control maintenance shall be minimized by limiting the annual maintenance to no more than five days per year; and by following good work practices defined as minimizing coal sulfur and reducing production which shall reduce SO_2 emissions by 28 percent of design capacity as detailed in the facility's Startup Shutdown andMalfunction (SSM) plan.

(d) SO_2 emissions from coke pushing shall be minimized through work practices as described in 40 CFR 63.7293(a).

(e) SO_2 emissions from coal charging shall be minimized through work practices as described in 40 CFR 63.303(d).

iii. It has been determined that the following control measures constitute LAER for NOx emissions from this emissions unit.

(a) NOx emissions from the main stack shall be controlled through the battery design which includes staged combustion.

(b) NOx emissions from coking during Heat Recovery Steam Generator (HRSG) maintenance shall be controlled through the battery design which includes staged combustion.

(c) NOx emissions from coking during lime spray dryer/baghouse control maintenance shall be controlled through the battery design which includes staged combustion.

(d) NOx emissions from coke pushing shall be minimized through work practices as described in 40 CFR 63.7293(a).

b. 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 the following control measures constitute BACT for PE and PM_{10} from this emissions unit.

i. The waste gas from coking shall be processed by the use of a lime spray dryer with a baghouse for PE/PM_{10} control.

ii. Combustion during the coking process shall be optimized by monitoring the temperature in each oven crown and sole flue and adding air as needed through dampers in each oven.

iii. The flat car for coke pushing shall be equipped with a multiclone for PE control.

iv. The charging machine shall be equipped with a traveling hood and fabric filter for PE/PM_{10} control.

v. PE/PM_{10} emissions from coking during Heat Recovery Steam Generator (HRSG) maintenance shall be minimized by limiting the HRSG maintenance to one HRSG at a time, except during the annual shut down of the spray dryer/fabric filter when the permittee shall perform preventive maintenance of up to two HRSG during the same maintenance period as for the spray dryer/fabric filter; by limiting the time when coking gases are not controlled by the spray dryer/fabric filter system to 1560 stack-hours per 12-month rolling period; and by following good work practices defined as the combustion of flue gases in sole flues and the common tunnel afterburner.

vi. PE/PM_{10} emissions from coking during lime spray dryer/fabric filter control maintenance shall be minimized by limiting the annual maintenance to no more than five days per year; and by following good work practices defined as the combustion of flue gases in sole flues and the common tunnel afterburner.

The emission limits based on the BACT requirements are listed under OAC rules 3745-31-10 through 3745-31-20 in b)(1)c., b)(1)k., b)(1)l., b)(1)v. and b)(1)dd. above. The controls and practices that constitute BACT also meet the BAT requirements of 3745-31-05(A)(3).

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 the following control measures constitute BACT for SO_2 and H_2SO_4 from this emissions unit.

i. SO_2 and H_2SO_4 emissions from the main stack shall be controlled with the use of a lime spray dryer/fabric filter with a manufacturer's design control

efficiency of 92% on a 24-hour basis for SO_2 control and greater than 95% on a 24-hour basis for H_2SO_4 control.

ii. SO_2 and H_2SO_4 emissions from coking during Heat Recovery Steam Generator (HRSG) maintenance shall be minimized by limiting the HRSG maintenance to one HRSG at a time, except during the annual shut down of the spray dryer/fabric filter when the permittee shall perform preventive maintenance of up to two HRSG during the same maintenance period as for the spray dryer/fabric filter; andby limiting the time when coking gases are not controlled by the spray dryer/fabric filter system to 1560 stack-hours per 12-month rolling period. The SO_2 emissions from the coke ovens affected by the shutdown of a HRSG during planned HRSG maintenance shall be reduced by 28 percent consistent with the facility's Startup Shutdown andMalfunction (SSM) plan for the spray dryer/fabric filter maintenance.

iii. SO_2 and H_2SO_4 emissions from coking during lime spray dryer/fabric filter control maintenance shall be minimized by limiting the annual maintenance to no more than five days per year; and by following good work practices defined as minimizing coal sulfur and reducing production which shall reduce SO_2 emissions by 28 percent of design capacity as detailed in the facility's SSM plan.

iv. SO_2 and H_2SO_4 emissions from coke pushing shall be minimized through work practices as described in 40 CFR 63.7293(a).

v. SO_2 and H_2SO_4 emissions from coal charging shall be minimized through work practices as described in 40 CFR 63.303(d).

The emission limits based on the BACT requirements are listed under OAC rules 3745-31-10 through 3745-31-20 in b)(1)c., b)(1)k., b)(1)l., b)(1)v. and b)(1)dd. above. The controls and practices that constitute BACT also meet the BAT requirements of 3745-31-05(A)(3).

d. 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 the following control measures constitute BACT for CO from this emissions unit.

i. Combustion during the coking process and during maintenance of the HRSG and lime spray dryer/fabric filter shall be optimized by monitoring the temperature in each oven crown and sole flue and adding air as needed through dampers in each oven.

ii. CO emissions from coke pushing shall be minimized through work practices as described in 40 CFR 63.7293(a).

The emission limits based on the BACT requirements are listed under OAC rules 3745-31-10 through 3745-31-20 in b)(1)c., b)(1)k., b)(1)l., b)(1)v. and b)(1)dd.

above. The controls and practices that constitute BACT also meet the BAT requirements of 3745-31-05(A)(3).

e. 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 the following control measures constitute BACT for NOx from this emissions unit:

i. NOx emissions from the main stack shall be controlled through the battery design which includes staged combustion.

ii. NOx emissions from coking during HRSG maintenance shall be controlled through the battery design which includes staged combustion.

iii. NOx emissions from coking during lime spray dryer/baghouse control maintenance shall be controlled through the battery design which includes staged combustion.

iv. NOx emissions from coke pushing shall be minimized through work practices as described in 40 CFR 63.7293(a).

The emission limits based on the BACT requirements are listed under OAC rules 3745-31-10 through 3745-31-20 in b)(1)c., b)(1)k., b)(1)l., b)(1)v. and b)(1)dd. above. The controls and practices that constitute BACT also meet the BAT requirements of 3745-31-05(A)(3).

f. The emission limitations set forth in 40 CFR Part 63, Subpart L shall apply at all times except during a period of startup, shutdown, or malfunction. The startup period shall be determined by the Administrator and shall not exceed 180 days.

g. The coke oven emissions from the nonrecovery coke oven batteries shall not exceed 0.0 percent leaking coke oven doors, as determined by the procedures in 40 CFR Part 63, Section 63.309(d)(1); or

The permittee shall monitor and record, once per day of operation, the pressure in each oven or in a common battery tunnel to ensure that the ovens are operated under a negative pressure.

h. For charging operations, the permittee shall install, operate and maintain an emission control system for the capture and collection of emissions in a manner consistent with good air pollution control practices for minimizing emissions from the charging operation.

i. As required by 40 CFR 63.6(e)(1)(i), the permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

j. The permittee must prepare and operate at all times according to a written operation and maintenance plan for each capture system and control device

applied to pushing emissions from a new or existing coke oven battery. Each plan must address at a minimum the elements in paragraphs (i) and (ii) below.

i. Monthly inspections of the equipment that are important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). The operation and maintenance plan must also include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection.

ii. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer s instructions for routine and long-term maintenance.

k. Hazardous Air Pollutant (HAPs) emissions (not including HCl) shall not exceed 3.6 tons per year for emissions units P001 and P901, combined. HCl emissions for emissions units P001 and P901, combined, shall not exceed 118.04 tons per year.

l. When coking coal having a sulfur content greater than or equal to 1.3 weight percent sulfur, the permittee shall either:

i. adjust operating parameters of the lime spray dryer as needed to increase the control efficiency for SO_2 emissions to comply with the pound per hour and rolling 12-month SO_2 emission limitations; or

ii. reduce production as needed to comply with the pound per hour and rolling 12-month SO_2 emission limitations.

The sulfur content (per cent) shall be determined in accordance with the most recent version of the following ASTM methods: ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods. Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

m. Control of Mercury Emissions

i. The Permittee shall install, operate, and maintain a hydrated activated carbon (HAC) injection system or equivalent to control mercury emissions from the main stack. The HAC injection system shall be operated to comply with the following requirements for control of mercury emissions from the main stack. The system shall be designed for a HAC injection rate of at least 60 pounds per hour. A reduced HAC injection rate may later be established by the Ohio EPA, if the Permittee demonstrates to the Director's satisfaction that a lower HAC injection rate can achieve the mercury emissions limitations.

ii. This HAC injection system shall be operated at all times when the spray dryer/fabric filter system is operated (except during the startup and shutdown of the spray dryer/fabric filter system or during periods of routine maintenance on the HAC injection system), either at a HAC injection rate of at least 60 pounds per hour, or to achieve emissions rates of 0.01 pounds per hour (as a 1-month average) and 55.5 pounds per year (as a rolling, 12-month summation) of mercury from the main stack excluding the bypass events. That is, the Permittee may operate the system at a HAC or HAC-equivalent injection rate that is lower than 60 pounds per hour when the system complies with the emissions rates of 0.01 pounds per hour (as a 1-month average) and 55.5 pounds per year (as a rolling, 12-month summation) of mercury.

The requirement to operate the HAC injection system and mercury emission limit(s) established under this section shall not apply during the startup and shutdown of the spray dryer/fabric filter, during periods of routine maintenance on the HAC system, or during spray fryer/fabric filter system bypass events.

The Permittee may elect to meet the mercury emissions limitation by a combination of carbon injection and other methods, including the injection of other sorbents or additives, coal specifications, and operational practices for the spray dryer.

n. The filter material in the filter system for the main stack shall be a membrane material, micro-fiber material, micro-fiber capped composite material or other similar filter material that has enhanced performance for collection of fine particulate as compared to conventional woven or felt filter material.

o. The pound per hour SO_2 emission limitation and minimum 92% SO_2 control efficiency requirement do not apply during maintenance of the lime spray dryer, as, for example, during atomizer replacement.

p. The hourly emissions of VOC outlined above are based on the emission unit's potential to emit. Therefore no hourly records are required to demonstrate compliance with these limitations.

q. For the purpose of assuring compliance with the amount of NOx emissions offsets required under PTI P0117561, the total NOx emissions from all permitted operating scenarios for this emissions unit, including normal coking operations,pushing operations, lime spray dryer/baghouse maintenance, and emissions from the HRSG bypass stack(s) during heat recovery steam generator(s) maintenance, shall not exceed 477.4 TPY as a rolling, 12-month summation.

r. Emission limit clarification

i. The emission limits listed under b)(1)l., b)(1)n., and b)(1)p. in the above table apply to all emissions associated with bypassing the lime spray dryer/baghouse system. These include any emissions emitted from the

HRSG bypass stacks and emissions emitted from the dryer/baghouse system main stack during bypassing of the lime spray dryer/gashouse system.

ii. Emissions from the HRSG bypass stacks during bypassing of the lime spray dryer/baghouse shall be excluded when determining compliance with the limits under b)(1)v., b)(1)w., and b)(1)x. in the table above.

c) Operational Restrictions

(1) The emissions from this emissions unit shall be vented to the waste gas exhaust baghouse at all times the emissions unit is in operation, except during bypassing of the lime spray dryer and heat recovery steam generators as allowed in this permit.

(2) The emissions from this emissions unit associated with charging of coal operations shall be vented to the charging baghouse at all times the emissions unit is in operation.

(3) The maximum hourly charging and pushing rate for this emissions unit shall not exceed 10 ovens charged per hour and 10 ovens pushed per hour.

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

(5) The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart L, including the following sections:

63.303(b)(3), 63.306(b)(6), 63.306(b)(7)	Work practices for charging operations
63.303(c)	Work practices for any nonrecovery coke oven battery
63.303(d)(4)	Work practices for new nonrecovery coke oven batteries
63.310(a)	General duty to minimize emissions
63.310(b), 63.310(g) – (j)	Startup, shutdown, malfunction plan
63.310(c)	Malfunctions

(6) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart CCCCC, including the following sections:

63.7293(a)-(b)	Work practices (inspections) for fugitive pushing emissions
63.7300(a)	General duty to minimize emissions
63.7300(c)	Operation and maintenance plan for pushing
63.7310(c)	Startup, shutdown, and malfunction plan

63.7323(c) and (e)	Site-specific operating limit procedures for pushing capture system(s)
63.7323(d) and (e)	Site-specific operating limit procedures for pushing multicyclone(s)

(7) Combustion gases from the coking process shall be routed to the HRSGs controlled by the spray dryer/fabric filter system, except (1) during inspection and maintenance of HRSGs; (2) during inspection and maintenance of the spray dryer/fabric filter system, the combustion gases will be routed directly to the main stack after passing through the HRSGs; and (3) monthly verification of operability of the lids for the HRSG bypass stacks. The total duration of the venting, with coking gases not controlled by the spray dryer/fabric filter system, shall not exceed 1560 stack-hours per 12-month rolling period and shall not exceed 960 stack-hours per 12-month rolling period for HRSG maintenance (excluding time when HRSG maintenance is performed during lime spray dryer maintenance). These bypass periods and appropriate operation during periods of bypass shall also be addressed by the Startup Shutdown andMalfunction (SSM) Plan required for the plant by 40 CFR 63.6 (e). The SSM Plan shall contain provisions that the permittee shall implement during the maintenance bypass of the lime spray dryer/fabric filter periods which will result in a 28 percent of design capacity reduction of SO_2 emissions.

(8) The permittee shall ensure that the common battery tunnel(s), oven exhaust ductwork, waste heat ductwork, heat recovery steam generators, ductwork from the heat recovery steam generators to the lime spray dryer, lime spray dryer, baghouse and fan capacity are designed and installed to handle peak gassing periods.

(9) It is recognized that soot formation can occur on the heat transfer surfaces of the heat recovery steam generators and reduce the heat transfer efficiency. The permittee shall implement maintenance procedures that allow for removal of soot from the heat transfer surfaces of the heat recovery steam generators without shutdown of the heat recovery steam generator(s). These maintenance procedures can include, but are not limited to, installation of sootblowers on the heat recovery steam generators to allow for periodic cleaning of the heat transfer surfaces.

(10) The permittee shall maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of SO_2 emissions from the continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

(11) The continuous emission monitoring systems consist of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and

transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

(12) At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(13) The permittee shall operate and maintain common battery tunnel duct temperature at a minimum of 1400^0 F to ensure emissions limits for the waste gas exhaust are not exceeded.

(14) In accordance with OAC rule 3745-15-06, the permittee shall submit requests to Ohio EPA at least two weeks prior to the scheduled maintenance of the lime spray dryer and fabric filter.

d) Monitoring and/or Recordkeeping Requirements

(1) Except during bypass of the lime spray dryer and heat recovery steam generators as allowed in this permit, the permittee shall operate and maintain equipment to continuously monitor the pressure drop, in inches of water, across the fabric filter following the lime spray dryer 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 fabric filter on a once per shift basis. 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:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. 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 2 to 12 inches of water on the pressure drop across fabric filter serving the lime spray dryer 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.

(2) The permittee shall operate and maintain equipment to continuously monitor the pressure drop, in inches of water, across each charging 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 each charging baghouse on a once per shift basis. 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:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. 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 2 to 12 inches of water on the pressure drop across each charging 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.

(3) The permittee shall maintain hourly records of the charging/pushing rate, in number of charges/pushes per hour, for this emissions unit.

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

a. the wet coal usage rate for each month;

b. the rolling, 12-month summation of the wet coal usage rates;

c. the rolling, 12-month summation of the PM, PM_{10}, $PM_{2.5}$, SO_2, CO, NOx and H_2SO_4 emissions, except as denoted in d)(14); and

d. the VOC, lead, HCl and HAP emission rates.

(5) The permittee shall maintain on-site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous SO_2 monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6. The letter(s)/document(s) of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(6) The permittee shall operate, and maintain equipment to continuously monitor and record SO_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous SO_2 monitoring system including, but not limited to:

a. emissions of SO_2 in parts per million on an instantaneous (one-minute) basis;

b. emissions of SO_2 in pounds per hour and in all units of the applicable standard(s) in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous SO_2 monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO_2 monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO_2 monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

(7) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart L, including the following sections:

63.303(d)(3), 63.309(m)	Daily visible emission monitoring requirements
63.310(f)	Malfunction records
63.311(f)	Listing of records to be maintained
63.311(g)	Availability of records

(8) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart CCCCC, including the following sections:

63.7330(d), 63.7331(g), 63.7331(h),	Capture system monitoring requirements for pushing

63.7331(i)	
63.7330(f), 63.7331(k)	Multicyclone monitoring requirements for pushing
63.7331(b)-(d)	Site-specific monitoring plan and continuous parametric monitoring system (CPMS) requirements
63.7332(a)-(b)	Continuous monitoring and data collection requirements
63.7333(d)	Continuous compliance demonstration requirements for capture system(s)
63.7333(h)	Continuous compliance demonstration requirements for multicyclone(s)
63.7334(c)	Continuous compliance demonstration requirements for work practice standards (inspections)
63.7335(b) and (d)	Continuous compliance demonstration requirements for operation and maintenance requirements
63.7342(a), (c), and (d)	Required overall records to be maintained
63.7343(a)-(c)	Format and retention of records

(9) The permittee shall maintain records for each waste gas by-pass event of the date and time each event began, an identification of the stack venting, and the duration in hours.

(10) The permittee shall collect monthly composite samples of the coal charged in this emissions unit. The permittee shall also collect a composite sample of the coal charged in this emissions unit each time the coal blend is changed. The individual samples for each monthly composite shall be collected from the primary conveyor belt that feeds the coke oven batteries or other location mutually agreeable by the permittee and Ohio EPA. A sufficient number of individual samples shall be collected so that each composite sample is representative of the average quality of coal charged in this emissions unit during each calendar month. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal.

Each monthly composite sample of coal shall be analyzed for sulfur content (percent), mercury content (percent) and chlorine content (percent). The analytical methods for sulfur content, mercury content and chlorine content shall be: ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; D6722-01Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Direct Combustion Analysis; D6721-01 Standard Test Method for Determination ofChlorine in Coal by Oxidation Hydrolysis Microcoulometry.

Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

(11) The permittee shall maintain monthly records of the results of the analyses for sulfur content, mercury content, and chlorine content of the coal charged.

(12) All HRSG bypass stacks shall be equipped with sensors that detect when the HRSG bypass stacks are open, or partially opened, either due to relieving system pressure or manual opening of the HRSG bypass stacks by the operator. These sensors shall be instrumented to the operator and an alarm indicated when there is stack gas flow to any of the HRSG bypass stacks. The permittee shall record and maintain daily records for each HRSG bypass stack the time periods that there was flow through the HRSG bypass stack(s).

(13) The Permittee shall install, calibrate, operate and maintain a monitoring system for mercury emissions from the main stack at all times when the spray dryer/fabric filter system is operated (except during startup or shutdown of the spray dryer/fabric filter system or during periods of routine maintenance on the HAC injection system).

a. This monitoring shall be conducted with a mercury sorbent trap monitoring system in accordance with 40 CFR 75.15 (as adopted by USEPA, even if subsequently vacated) or, alternatively, with an approved continuous mercury emissions monitoring system in accordance with 40 CFR 75.81 (as adopted by USEPA, even if subsequently vacated). In addition to other applicable requirements of 40 CFR Part 75, the Permittee shall submit semi-annual monitoring reports to the Ohio EPA for this monitoring in accordance with relevant reporting requirements of 40 CFR Part 75.

b. After the initial period of data collection needed to set emission limits for mercury, this monitoring system shall continue to be operated to verify compliance with such limit unless the Ohio EPA determines either that this monitoring system would still provide accurate, reliable data to verify compliance with the applicable limits for mercury emissions if operated on a periodic basis, or, if monitoring was initially conducted with sorbent traps, for ongoing monitoring to verify compliance with mercury emission limits to be effective, such monitoring should be conducted with a continuous emissions monitoring system in accordance with 40 CFR 75, Subpart H.

In the event that adverse weather conditions prohibit timely change-out of the mercury sorbent traps, the permittee shall meet the following conditions:

i. The permittee shall document the dates when it was determined that adverse weather conditions prohibited safe access to the stack platform for mercury sorbent trap change-out. These dates shall be documented in the semi-annual monitoring report. The sorbent traps shall be changed-out as soon as possible after weather conditions improve; and

ii. The mercury sorbent trap monitoring plan shall include provisions for alternate tube change-out procedures in the event of adverse weather conditions that pose safety concerns for plant personnel.

c. On August 29, 2014 the Permittee applied for a revision to this permit to include limits for mercury emissions, which limits reflect emission rates that are achievable with effective control by the combination of the spray dryer, HAC injection system and baghouse and are based on the emission data that has been collected and relevant information about the mercury content of the coal supply to the plant and operation of control devices, including the HAC injection system. With this application, the Permittee submitted a detailed report to the Ohio EPA that provide an assessment of the mercury emissions of the plant and the effectiveness of the control system that at a minimum included: the data that has been collected for mercury emissions; information confirming proper design of the HAC injection system for control of mercury; information confirming proper operation of the control system for effective control of mercury emissions while emissions data was being collected; the results of the analyses of coal for mercury content required by d)(11) with estimates of the theoretical emissions of mercury in the absence of any control; and other information that the Permittee considers relevant, together with the Permittee's recommended emission limits for mercury, with the specific data, calculations and rationale for those limits.

(14) The permittee shall maintain monthly records of all the following information for all periods when waste gas emissions are vented to the HRSG bypass stacks:

a. the date, time, and duration of each bypass event;

b. the identification of each bypass vent stack in use;

c. the reason for the bypass event;

d. the rolling, 12-month summation of the number of bypass hours;

e. the rolling, 12-month summation of the PM, PM10, PM2.5, SO2, CO, NOx and H2SO4 emissions; and

f. the VOC, lead, HCl and HAP emission rates.

(15) The permittee shall monitor and record the temperature of the common battery tunnel on a once per shift basis.

(16) Except during bypassing of the lime spray dryer and heat recovery steam generators as allowed in this permit, the permittee shall operate and maintain a Bag Leak Detector System (BLDS) to continuously monitor the coke oven baghouse vented to the main stack when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The BLDS shall be installed, operated and maintained in a manner that is consistent with the manufacturer's recommendations.

a. The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 0.005 grain per actual cubic foot or less.

b. The bag leak detection system sensor shall produce an output of relative particulate emissions.

c. The bag leak detection system shall be equipped with an alarm system that will activate automatically when an increase in relative PM emissions over a preset level is detected and the alarm shall be located such that it can be seen or heard by the appropriate plant personnel.

d. The bag leak detection system shall be installed downstream of the lime spray dryer baghouse.

e. Initial adjustment of the system shall at a minimum consist of establishing the baseline output by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

f. Following the initial adjustment, the permittee shall not adjust the range, averaging period, alarm setpoints or alarm delay except as detailed in the operations, maintenance and monitoring plan. In no event shall the range be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless a responsible official certifies by written report the baghouse has been inspected and found to be in good operating condition.

The permittee shall maintain, and make available to agency personnel, records of any bag leak detection system alarms, including the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective action taken and when the cause of the alarm was corrected.

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.

(17) The Permittee shall maintain records of the following information, pursuant to the mercury emissions limitations in paragraphs b)(1)o. and b)(1)x.:

a. The 1-month average mercury emissions in lbs/hr from the main stack, excluding periods when the lime spray dryer/baghouse is bypassed;

b. The rolling, 12-month summation of mercury emissions in lbs/yr from the main stack, excluding periods when the lime spray dryer/baghouse is bypassed; and

c. The rolling, 12-month summation of mercury emissions in lbs/yr from the combined HRSG bypass stacks and the main stack during periods when the lime spray dryer/baghouse is bypassed.

(18) The permittee shall monitor the HAC injection system's hourly HAC injection amounts and maintain records of the following information, pursuant to the HAC injection system's operational requirements in paragraph b)(2)m.:

a. The HAC injection system's hourly HAC injection amounts, in lbs/hr

b. The date/time, duration, and cause for each injection system downtime and routine maintenance event.

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the waste gas baghouse during the operation of the emissions unit(s), except during bypassing of the lime spray dryer and heat recovery steam generators as allowed in this permit:

a. each period of time when the pressure drop was outside of the permitted range as 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 unit 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 quarterly reports that identify the following information concerning the operation of each charging 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.

(3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. all exceedances of the hourly charging/pushing rate limitation specified in c)(3);

b. all exceedances of the rolling, 12-month wet coal usage rate specified in c)(4);

c. all exceedances of the HRSG bypass stack usage limitations specified in c)(7);

d. all exceedances of the rolling, 12-month Hg, PE, PM_{10}, $PM_{2.5}$, SO_2, CO, NOx and H_2SO_4 emission limitations;

e. all exceedances of the annual lead and VOC emission limitations;

f. all exceedances of the 1-month average Hg emission limitation;

g. all non-conformances with the HAC injection system's operating parameter limitations;

h. all exceedances of the common battery tunnel temperature restriction specified in c)(13), including the time of the temperature deviation, the duration of the exceedance, and the corrective action taken;

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

(4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO_2 monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of SO_2 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

b. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous SO_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER), i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total SO_2 emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous SO_2 monitoring system while the emissions unit was in operation;

viii. results and date of quarterly cylinder gas audits;

ix. unless previously submitted, results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO_2 monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time and duration of any/each malfunction* of the continuous SO_2 monitoring system;

xii. the date, time and duration of any/each malfunction of the emissions unit and/or control equipment that causes the emission of air contaminants in violation of any applicable limit; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* SO_2 monitoring system downtime attributed to permit-allowed main stack bypass events shall not be counted against the facility for enforcement purposes, but must be reported.

(5) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 63, Subpart L, including the following sections:

63.310(d)-(e)	Notifications of startup, shutdown, malfunction
63.311(a)	Report submission
63.311(b)	Initial compliance certification requirements
63.311(c)	Notification requirements
63.311(d)	Semiannual compliance certification requirements
63.311(e)	Report requirement for venting of coke oven gas

(6) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 63, Subpart CCCCC, including the following sections:

63.7336(a)	Deviation reporting
63.7340(a)	Overall notification reporting requirements
63.7340(c)	Initial notification reports
63.7340(d)	Notification of intent to test
63.7340(e)	Notification of compliance status
63.7341(a)	Compliance report due dates
63.7341(c)	Compliance report contents
63.7341(d)	Immediate startup, shutdown, and malfunction reports
63.7341(e)	Title V monitoring report allowance

(7) The permittee shall submit semi-annual written reports which identify the date, time, and duration of each waste gas bypass event.

These semi-annual reports shall be submitted by the dates described in the Standard Terms and Conditions of this permit.

(8) The permittee shall submit to the Local Air Agency quarterly deviation (excursion) reports that identify all periods during which visual inspections of the enclosed flat push hot car, conducted pursuant to 63.7300(c), identified areas potentially needing repair to minimize visible emissions of fugitive dust. The report shall include the repair methods of each attempt to repair, and the date of successful repair. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during the quarter. These reports are due by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

(9) The permittee shall submit to the Local Air Agency quarterly reports concerning the quality and quantity of the coal in this emissions unit. These reports shall include the following information for the emissions unit for each day during the calendar quarter:

a. the total quantity of wet coal charged (tons);

b. the average mercury content (percent) of the coal charged;

c. the average chlorine content (percent) of the coal charged; and

d. the average sulfur content (weight percent) of the coal charged.

These reports are due by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

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:

Lead emissions shall not exceed 0.28 TPY as a rolling, 12-month summation for emissions units P901 and P001 combined.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements in d)(4). The current month's emissions shall be added to the emissions for the preceding eleven calendar months to determine the 12-month rolling emissions. Monthly emissions shall be determined by calculating the sum of i. through iv. below:

i. Heat Recovery Steam Generator (HRSG) bypass stacks and coking emission control system main stack

Monthly emissions shall be determined by multiplying the lead emission factor, in pounds/ton, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The lead emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

ii. Charging control system-baghouse stack

Monthly emissions shall be determined by multiplying the lead emission factor of 0.0000001 pound/ton, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The lead emission factor was obtained from AP-42, Section 12.2, Table 12.2-21, revised 7/2007.

iii. Pushing stack

Monthly emissions shall be determined by multiplying the lead emission factor, in pounds/ton, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The lead emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

iv. Quench tower

Monthly emissions shall be determined by multiplying the lead emission factor, in pounds/ton, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The lead emission factor shall be calculated from the results of the most recent water analysis which demonstrated compliance.

b. Emission Limitations – Coal Charging Operations:

PE, filterable PM_{10} and filterable $PM_{2.5}$ shall not exceed 0.0081 pound per ton of dry coal charged and 3.7 pounds per hour from the charging baghouse.

Applicable Compliance Method:

Subpart L, section 63.303(d)(2) restricts particulate matter emissions from a charging emissions control device to 0.0081 pound per ton of dry coal charged. The pound per hour emission limitation reflects the potential to emit at the maximum capacity of 460 tons of dry coal charged per hour (46 tons dry coal per charge at 10 charges per hour).

The actual PE, PM_{10}, and $PM_{2.5}$ emission rate shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall conduct emission testing in accordance with Method 5 of 40 CFR Part 60, Appendix A and the procedures in 40 CFR 63.309(k). See f)(2).

The PE rate is used as a surrogate for PM_{10} and $PM_{2.5}$ where PM_{10} and $PM_{2.5}$ emission factors are not available.

c. Emission Limitation – Coal Charging Operations:

PE, PM_{10}, and $PM_{2.5}$ emissions shall not exceed 3.4 tons per year as a rolling, 12-month summation from the charging baghouse.

Applicable Compliance Method:

The annual emission limitation is based upon the emission limitation in Subpart L, section 63.303(d)(2), at 0.0081 pound of particulate per ton of dry coal charged, and the operational restriction in c)(4) which equates to a maximum annual volume of 839,500 TPY of dry coal charged. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. The actual PE, PM_{10}, and $PM_{2.5}$ emission rates, in pound of particulate per ton of dry coal charged, shall be calculated from the results of the most recent stack test which demonstrated compliance. The PE rate is used as a surrogate for PM_{10} and $PM_{2.5}$ where PM_{10} and $PM_{2.5}$ emission factors are not available.

d. Emission Limitations – Coal Charging Operations:

Fugitive PE from charging shall not exceed 1.35pounds per hour and 1.23 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the pound per hour fugitive PE limitation shall be demonstrated by multiplying the uncontrolled particulate emission factor of 0.027 pound per ton of coal charged, as found in AP-42 Section 12.2, Table 12.2-21(5/2008), by the maximum tons of wet coal charged per hour (500 tons) and the capture factor of 0.1 (90% capture rate) as provided in the application for PTI P0104768.

Compliance with the 12-month rolling fugitive PE limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by multiplying the uncontrolled particulate emission factor of 0.027 pound per ton of coal charged, as found in AP-42 Section 12.2, Table 12.2-21(5/2008), by the tons of wet coal charged per month and the capture factor of 0.1 (90% capture rate), divided by 2,000 pounds/ton.

e. Emission Limitations – Coal Charging Operations:

Fugitive PM_{10} emissions from charging shall not exceed 0.41 pound per hour and 0.37 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the pound per hour fugitive PM_{10} limitation shall be demonstrated by multiplying the uncontrolled particulate emission factor of 0.027 pound per ton of coal charged, as found in AP-42 Section 12.2, Table 12.2-

21(5/2008), by the maximum tons of wet coal charged per hour (500 tons) and the capture factor of 0.1 (90% capture rate), then multiplying the value by 0.30 as the fraction of total suspended particulate estimated to be PM_{10} as provided in the application for PTI P0104768.

Compliance with the 12-month rolling fugitive PM_{10} limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by multiplying the uncontrolled particulate emission factor of 0.027 pound per ton of coal charged, as found in AP-42 Section 12.2, Table 12.2-21(5/2008), by the tons of wet coal charged per month and the capture factor of 0.1 (90% capture rate), multiplying the value by 0.30 as the fraction of total suspended particulate estimated to be $PM_{10,}$ and dividing by 2,000 pounds/ton.

f. Emission Limitations – Coal Charging Operations:

Fugitive $PM_{2.5}$ emissions from charging shall not exceed 0.20 pound per hour and 0.18 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the pound per hour fugitive $PM_{2.5}$ limitation shall be demonstrated by multiplying the uncontrolled particulate emission factor of 0.027 pound per ton of coal charged, as found in AP-42 Section 12.2, Table 12.2-21(5/2008), by the maximum tons of wet coal charged per hour (500 tons) and the capture factor of 0.1 (90% capture rate), then multiplying the value by 0.15 as the fraction of total suspended particulate estimated to be $PM_{2.5}$ as provided in the application for PTI P0104768.

Compliance with the 12-month rolling fugitive $PM_{2.5}$ limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by multiplying the uncontrolled particulate emission factor of 0.027 pound per ton of coal charged, as found in AP-42 Section 12.2, Table 12.2-21(5/2008), by the tons of wet coal charged per month and the capture factor of 0.1 (90% capture rate), multiplying the value by 0.150 as the fraction of total suspended particulate estimated to be $PM_{2.5,}$ and dividing by 2,000 pounds/ton.

g. Emission Limitations – Coal Charging Operations:

SO_2 emissions from the charging baghouse shall not exceed 0.0003 pound per ton of coal charged, 0.15 pound per hour, and 0.14 TPY as a rolling, 12-month summation;

CO emissions from the charging baghouse shall not exceed 0.0028 pound per ton of coal charged, 1.4 pounds per hour, and 1.28 TPY as a rolling, 12-month summation; and,

VOC emissions from the charging baghouse shall not exceed 1.0 pound per hour and 0.91 TPY.

Applicable Compliance Methods:

The SO_2 and CO emission rates, in pound per ton of coal charged and pound per hour, reflect the potential to emit based upon the results of an October 1989 emission stack test performed at Jewell Coal and Coke Company as supplied with the application for PTI P0104768, and the maximum capacity of 500 tons of wet coal charged per hour (50 tons wet coal per charge at 10 charges per hour). Compliance with the 12-month rolling emission limitations for SO_2 and CO shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the pound per ton of coal charged emission rates above. If required, the permittee shall demonstrate compliance with the pound per ton of coal charged emission rates for SO_2 and CO by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, 6C, and 10.

The VOC emission rate, in pound per hour, reflects the potential to emit based upon an emission factor of 0.0020 pound VOC per ton of coal charged from an October 1989 emission stack test performed at Jewell Coal and Coke Company as supplied with the application for PTI P0104768, and the maximum capacity of 500 tons of wet coal charged per hour (50 tons wet coal per charge at 10 charges per hour). Compliance with the annual emission limitation for VOC shall be demonstrated under the record keeping requirements in d)(4) by adding the monthly emissions over the calendar year. Monthly emissions shall be calculated by using the pound VOC per ton of coal charged emission factor above. If required, the permittee shall demonstrate compliance with the pound per hour emission rate for VOC by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 25.

h. Emission Limitation - Coal Charging Operations:

Visible particulate emissions from the charging baghouse stack shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR 63.303(d)(3), 63.309(m), and 40 CFR Part 60, Appendix A, Method 9.

i. Emission Limitation - Coal Charging Operations:

Visible particulate emissions of fugitive dust from charging operations shall not exceed 20% opacity as an average of five consecutive charges.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR 63.303(d)(1) and 63.309(j).

j. Emission Limitations – Coking Operations:

Filterable PM, PM_{10}, and $PM_{2.5}$ shall not exceed 0.0050 gr/dscf and 10.7 pounds per hour from the main stack during normal operation.

Applicable Compliance Method:

The 0.0050 gr/dscf emission limitation for PM is a controlled emission factor considered Best Available Control Technology (BACT) for the Gateway Energy and Coke Company, Granite City, Illinois, Permit to Construct issued March 13, 2008. The pound per hour limitation above was determined by multiplying the emission factor (grain loading) of 0.0050 gr/dscf times 1 pound divided by 7000 grains times the airflow of 250,000 scfm times 60 minutes per hour.

The actual PM, PM_{10}, and $PM_{2.5}$ emission rate shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall conduct emission testing in accordance with Method 5 of 40 CFR Part 60, Appendix A. See f)(2).

The PM rate is used as a surrogate for PM_{10} and $PM_{2.5}$ where PM_{10} and $PM_{2.5}$ emission factors are not available.

k. Emission Limitation - Coking Operations:

Filterable PM, PM_{10}, and $PM_{2.5}$ shall not exceed 46.9 TPY as a rolling, 12-month summation from the main stack during normal operation.

Applicable Compliance Method:

The annual emission limitation is based upon the hourly emission limitation of 10.7 pounds per hour above, assuming 8,760 hours per year. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual PM, PM_{10}, and $PM_{2.5}$ emission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance. The PM rate is used as a surrogate for PM_{10} and $PM_{2.5}$ where PM_{10} and $PM_{2.5}$ emission factors are not available.

l. Emission Limitations – Coking Operations:

SO_2 emissions shall not exceed 300 lbs/hr (based on a 3-hour block average); 192.0 lbs/hr (based on a 24-hour block average); and 700.8 TPY (1.54 lbs of SO_2/wet ton of coal) as a rolling, 12-month summation from the main stack during normal operation.

Applicable Compliance Method:

Ongoing compliance with the SO_2 emission limitations above, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months.

m. Emission Limitations – Coking Operations:

CO emissions shall not exceed 20 ppm, 21.81 pounds per hour, and 95.54 TPY as a rolling, 12-month summation from the main stack during normal operation.

Applicable Compliance Method:

The CO emission rate of 20 ppm is based upon the Haverhill North Coke Company, Franklin Furnace, Ohio, emission test data provided by the permittee in the application for PTI P0104768. The pounds per hour emission limit was derived by multiplying the CO emission rate of 20 ppm, times 28, the molecular weight of CO, divided by the 385,100,000 conversion factor, times the maximum waste gas flow through the coking operation main stack of 250,000 dscf/min, times 60 minutes/hour.

The actual COemission rates, in ppm and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for CO by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 10. See f)(3).

The annual emission limitation is based upon the hourly emission limitation of 21.81 pounds per hour above, assuming 8,760 hours per year. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual COemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

n. Emission Limitations – Coking Operations:

NOx emissions shall not exceed 1 pound per ton of coal, 104.2 pounds per hour, and 456.25 TPY as a rolling, 12-month summation from the main stack during normal operation. The annual emission limitation shall include NOx emissions from the main stack after passing through the lime spray dryer/fabric filter and during maintenance of the lime spray dryer/fabric filter, combined.

Applicable Compliance Method:

The NOx emission factor of 1 pound/ton of coal was provided by the permittee in the application for PTI P0104768. The pounds per hour emission limit was derived by multiplying the NOx emission factor of 1 pound/ton of coal by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day.

The actual NOxemission rates, in pound/ton of coal and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for NOx by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 7E. See f)(2).

The annual emission limitation is based upon the hourly emission limitation of 104.2 pounds per hour above, assuming 8,760 hours per year. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual NOxemission rates, in pound/ton of coal and pounds per hour, from the results of the most recent stack test which demonstrated compliance.

o. Emission Limitations – Coking Operations:

Sulfuric acid mist (H_2SO_4) emissions shall not exceed 0.024 pound per ton of coal, 2.5 lbs/hr, and 11.13 TPY as a rolling 12-month summation from the main stack during normal operation.

Applicable Compliance Method:

Compliance with the pound per hour H_2SO_4 limit shall be demonstrated by multiplying the uncontrolled H_2SO_4 emission factor of 1.22 pound per ton of coal charged by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and multiplying by a control efficiency factor of 0.02 (1 - 98% control efficiency for the lime spray dryer with fabric filter) as provided in the application for PTI P0104768. The uncontrolled H_2SO_4 emission factor was based on emission testing done at the Haverhill North Coke Plant in Franklin Furnace, Ohio.

The actual H_2SO_4 emission rates, in pound/ton of coal and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for H_2SO_4 by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 8, or an alternate method approved by Ohio EPA. See f)(3).

The annual emission limitation is based upon the hourly emission limitation of 2.5 pounds per hour above, assuming 8,760 hours per year. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping

requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual H_2SO_4 emission rates, in pound/ton of coal and pounds per hour, from the results of the most recent stack test which demonstrated compliance.

p. Emission Limitations – Coking Operations:

Mercury emissions shall not exceed 0.01 pound per hour from the main stack, as a 1-month average, except when the lime spray dryer/baghouse is bypassed.

Applicable Compliance Method:

Data obtained from the main stack's mercury sorbent trap monitoring system shall be used to demonstrate compliance with this emissions limit.

q. Emission Limitations – Coking Operations:

Mercury emissions shall not exceed 55.5 pounds per year from the main stack, as a rolling, 12-month summation, except when the lime spray dryer/baghouse is bypassed.

Applicable Compliance Method:

As appropriate for each emissions egress point: 40 CFR 60 Appendix A, Method 29; ASTM D6784-02, Standard Test Method for Elemental, Oxidized Particle-Bound, and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (also known as the Ontario Hydro Method) or any other applicable method approved by OEPA shall be used to demonstrate compliance.

Data obtained from the main stack's mercury sorbent trap monitoring system shall be used to demonstrate compliance with this emission limitation.

r. Emission Limitations – Coking Operations:

Visible particulate emissions from the lime spray dryer baghouse stack shall not exceed 10% opacity as a 6-minute average.

Visible particulate emissions from the main stack shall not exceed 20% opacity as a 6-minute average when the lime spray dryer baghouse is bypassed.

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).

s. Emission Limitation – Coking Operations:

No visible emissions shall be permitted from the common battery tunnel or its associated piping.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the work practices and visible emission inspection requirements as specified in 40 CFR Part 63, Subpart L.

t. Emission Limitations – Coking Operations:

Filterable PM, PM_{10}, and $PM_{2.5}$ shall not exceed 0.049 gr/dscf and 6.3 TPY as a rolling, 12-month summation from the main stack when the lime spray dryer is bypassed. The spray dryer bypass limit includes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The 0.049 gr/dscf emission limitation for PM is an uncontrolled emission factor based upon engineering estimates provided by the permittee in the application for PTI P0104768.

The actual PM, PM_{10}, and $PM_{2.5}$ emission rate, in gr/dscf and pound per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. If required, the permittee shall conduct subsequent emission testing in accordance with Method 5 of 40 CFR Part 60, Appendix A.

The PM rate is used as a surrogate for PM_{10} and $PM_{2.5}$ where PM_{10} and $PM_{2.5}$ emission factors are not available.

The annual emission limitation was determined by multiplying the equivalent hourly uncontrolled particulate emission rate of 21.0 pounds per hour by 120 hours/year, the number of hours that flue gases are routed around the FGD system to allow for inspection/maintenance of the spray dryer/baghouse. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) and d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual PM, PM_{10}, and $PM_{2.5}$ emission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

u. Emission Limitations – Coking Operations:

SO_2 emissions shall not exceed 1794 lbs/hour and 107.64 TPY as a rolling, 12-month summation when the lime spray dryer is bypassed.

Applicable Compliance Method:

The pound per hour SO_2 emission limitation is calculated by multiplying an emissions factor of 23.92 pounds of SO2 per ton of coal charged as determined by material balance calculations, by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and multiplying the value by a SO_2 reduction factor of 0.72 (1 - 28%, the reduction effected by reduction of

charge size and/or coal sulfur in the coal charge per the SSM plan) as provided in the application for PTI P0104768. If required, compliance with the lb/hr emission limitation shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60 Appendix A, Methods 1 through 4 and 6.

The annual emission limitation was determined by multiplying the hourly emission rate of 1794 pounds per hour by 120 hours/year, the number of hours that flue gases are routed around the FGD system to allow for inspection/maintenance of the spray dryer/baghouse. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) and d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months.

v. Emission Limitations – Coking Operations:

CO emissions shall not exceed 20 ppm and 1.31 TPY as a rolling, 12-month summation from the main stack when the lime spray dryer is bypassed. The spray dryer bypass limit includes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The CO emission rate of 20 ppm is based upon the Haverhill North Coke Company, Franklin Furnace, Ohio, emission test data provided by the permittee in the application for PTI P0104768.

The actual COemission rates, in ppm and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. See f)(1)m. and f)(3).

The annual emission limitation was determined by multiplying the equivalent hourly emission rate of 21.81 pounds per hour by 120 hours/year, the number of hours that flue gases are routed around the FGD system to allow for inspection/maintenance of the spray dryer/baghouse. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) and d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual COemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

w. Emission Limitations – Coking Operations:

NOx emissions shall not exceed 1 pound per of coal and 6.25 TPY as a rolling, 12-month summation from the main stack when the lime spray dryer is bypassed. The spray dryer bypass limit includes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The NOx emission factor of 1 pound/ton of coal was provided by the permittee in the application for PTI P0104768.

The actual NOxemission rates, in pound/ton of coal and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. See f)(1)n. and f)(2).

The annual emission limitation was determined by multiplying the equivalent hourly emission rate of 104.2 pounds per hour by 120 hours/year, the number of hours that flue gases are routed around the FGD system to allow for inspection/maintenance of the spray dryer/baghouse. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) and d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual NOxemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

x. Emission Limitations – Coking Operations:

Sulfuric acid mist (H_2SO_4) emissions shall not exceed 91.5 lbs/hour and 5.49 TPY as a rolling 12-month summation the main stack when the lime spray dryer is bypassed.

Applicable Compliance Method:

Compliance with the pound per hour H_2SO_4 limit shall be demonstrated by multiplying the uncontrolled H_2SO_4 emission factor of 1.22 pound per ton of coal charged by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and multiplying the value by a H_2SO_4 reduction factor of 0.72 (1 - 28%, the reduction effected by reduction of charge size and/or coal sulfur in the coal charge per the SSM plan) as provided in the application for PTI P0104768. The uncontrolled H_2SO_4 emission factor was based on emission testing done at the Haverhill North Coke Plant in Franklin Furnace, Ohio. If required, compliance with the lb/hr emission limitation shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60 Appendix A, Methods 1 through 4 and 8, or an alternative method approved by Ohio EPA .

The annual emission limitation was determined by multiplying the hourly emission rate of 91.5 pounds per hour by 120 hours/year, the number of hours that flue gases are routed around the FGD system to allow for inspection/maintenance of the spray dryer/baghouse. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) and d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months.

y. Emission Limitations – Coking Operations:

VOC emissions shall not exceed 4.67 lbs/hr and 20.47 TPY from the main stack during normal operation.

Applicable Compliance Method:

The VOC emission limitation, in pound per hour, reflects the potential to emit based upon an emission factor of 10 ppm, times 12, the molecular weight of carbon, divided by the 385,100,000 conversion factor, times the maximum waste gas flow through the coking operation main stack of 250,000 dscf/min, times 60 minutes/hour. The VOC emission factor of 10 ppm was based on Haverhill North Coke Company, Franklin Furnace, Ohio, emission test data provided by the permittee in the application for PTI P0104768.

The actual VOC emission rate, in pound per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. If required, the permittee shall conduct subsequent emission testing in accordance with Method 25 or 25A of 40 CFR Part 60, Appendix A.

The annual emission limitation is based upon the hourly emission limitation of 4.67 pounds per hour above, assuming 8,760 hours per year. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual VOCemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

z. Emission Limitations – Coking Operations:

Hydrochloric acid (HCl) emissions shall not exceed 14.8 lbs/hr and 64.79 TPY.

Applicable Compliance Method:

The pound per hour HCl emission limitation is calculated by multiplying an uncontrolled emissions factor of 2.84 pounds of HCl per ton of coal charged, by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and multiplying the value by a control efficiency factor of 0.05 (1 - 95% control efficiency for the lime spray dryer with fabric filter) as provided in the application for PTI P0104768.

The actual HClemission rate, in pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for HCl by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 26. See f)(3).

The annual emission limitation is based upon the hourly emission limitation of 14.8 pounds per hour above, assuming 8,760 hours per year. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record

keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual HClemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

aa. Emission Limitation – Coking Operations:

VOC emissions shall not exceed 0.28 TPY from the main stack when the lime spray dryer is bypassed. The spray dryer bypass limit includes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The annual emission limitation was determined by multiplying the hourly emission rate of 4.67 pounds per hour by 120 hours/year, the number of hours that flue gases are routed around the FGD system to allow for inspection/maintenance of the spray dryer/baghouse. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) and d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual VOCemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

bb. Emission Limitation – Coking Operations:

Hydrochloric acid (HCl) emissions shall not exceed 17.75 TPY from the main stack when the lime spray dryer is bypassed.

Applicable Compliance Method:

The annual emission limitation was determined by multiplying the uncontrolled emissions factor of 2.84 pounds of HCl per ton of coal charged, by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, multiplying the value by 120 hours/year, the number of hours that flue gases are routed around the FGD system to allow for inspection/maintenance of the spray dryer/baghouse, and dividing by 2000 lbs/ton. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) and d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months.

cc. Emission Limitations – HRSG Bypass Stacks:

Filterable PE, PM_{10} and $PM_{2.5}$ emissions shall not exceed 21.0 pounds per hour from a single HRSG bypass stack (0.049 gr/dscf), and 10.1 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. The annual limit excludes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The 0.049 gr/dscf emission limitation for PM is an uncontrolled emission factor based upon engineering estimates provided by the permittee in the application for PTI P0104768. The pound per hour emission limitation for PM was determined by multiplying the emission factor (grain loading) of 0.049 gr/dscf times 1 pound divided by 7000 grains times the airflow of 250,000 scfm times 60 minutes per hour to show hourly emissions from all five HRSG bypass stacks and dividing by five to show hourly emissions from a single HRSG stack.

The actual PM, PM_{10}, and $PM_{2.5}$ emission rate, in gr/dscf and pound per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall conduct emission testing in accordance with Method 5 of 40 CFR Part 60, Appendix A. See f)(2).

The PM rate is used as a surrogate for PM_{10} and $PM_{2.5}$ where PM_{10} and $PM_{2.5}$ emission factors are not available.

The annual emission limitation was determined by multiplying the hourly uncontrolled particulate emission rate of 21.0 pounds per hour by 960 hours/year, the total number of allowable HRSG bypass hours as specified in c)(7). Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual PM, PM_{10}, and $PM_{2.5}$ emission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

dd. Emission Limitations – HRSG Bypass Stacks:

SO_2 emissions shall not exceed 498.33 pounds per hour from a single HRSG bypass stack as a 3 hour block average(23.92 lbs/ton of coal),and 239.2 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. The annual limit excludes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The SO_2 emission factor of 23.92 pounds/ton of coal was provided by the permittee in the application for PTI P0104768. The pound per hour SO_2 emission limitation is calculated by multiplying the emission factor of 23.92 pounds of SO_2 per ton of coal charged as determined by material balance calculations, by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and dividing by five to show hourly emissions from a single HRSG stack.

The actual SO_2 emission rate, in pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for SO_2 by

conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 6. See f)(2).

The annual emission limitation was determined by multiplying the hourly emission rate of 498.33 pounds per hour by 960 hours/year, the total number of allowable HRSG bypass hours as specified in c)(7). Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual SO_2 emission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

ee. Emission Limitations – HRSG Bypass Stacks:

NOx emissions shall not exceed 20.8 pounds per hour from a single HRSG bypass stack (1 lb/ ton of coal), and 10.0 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. The annual limit excludes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The NOx emission factor of 1 pound/ton of coal was provided by the permittee in the application for PTI P0104768. The pound per hour NOx emission limitation is calculated by multiplying the emission factor of 1 pound of NOx per ton of coal charged, by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and dividing by five to show hourly emissions from a single HRSG stack.

The actual NOxemission rates, in pound/ton and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. See f)(1)n. and f)(2).

The annual emission limitation was determined by multiplying the hourly emission rate of 20.8 pounds per hour by 960 hours/year, the total number of allowable HRSG bypass hours as specified in c)(7). Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual NOxemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

ff. Emission Limitations – HRSG Bypass Stacks:

CO emissions shall not exceed 4.36 pounds per hour from a single HRSG bypass stack (20 ppm), and 2.09 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation. The annual limit excludes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The CO emission rate of 20 ppm is based upon the Haverhill North Coke Company, Franklin Furnace, Ohio, emission test data provided by the permittee in the application for PTI P0104768. The pounds per hour emission limit was derived by multiplying the CO emission rate of 20 ppm, times 28, the molecular weight of CO, divided by the 385,100,000 conversion factor, times the maximum waste gas flow through the coking operation of 250,000 dscf/min, times 60 minutes/hour, and dividing by five to show hourly emissions from a single HRSG stack.

The actual COemission rates, in ppm and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. See f)(1)m. and f)(2).

The annual emission limitation was determined by multiplying the hourly emission rate of 4.36 pounds per hour by 960 hours/year, the total number of allowable HRSG bypass hours as specified in c)(7). Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual COemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

gg. Emission Limitations – HRSG Bypass Stacks:

Sulfuric acid mist (H_2SO_4) emissions shall not exceed 25.4 lbs/hr from a single HRSG bypass stack, and 12.20 TPY from all HRSG bypass stacks combined as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the pound per hour H_2SO_4 limit shall be demonstrated by multiplying the uncontrolled H_2SO_4 emission factor of 1.22 pound per ton of coal charged by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and dividing by five to show hourly emissions from a single HRSG stack. The uncontrolled H_2SO_4 emission factor was based on emission testing done at the Haverhill North Coke Plant in Franklin Furnace, Ohio, as provided in the application for PTI P0104768. If required, compliance with the lb/hr emission limitation shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60 Appendix A, Methods 1 through 4 and 8, or an alternative method approved by Ohio EPA.

The annual emission limitation was determined by multiplying the hourly emission rate of 25.4 pounds per hour by 960 hours/year, the total number of allowable HRSG bypass hours as specified in c)(7). Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months.

hh. Emission Limitations – HRSG Bypass Stacks:

VOC emissions shall not exceed 0.93 pound per hour from a single HRSG bypass stack and 0.45 TPY from all HRSG bypass stacks combined. The annual limit excludes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The VOC emission limitation, in pound per hour, reflects the potential to emit based upon an emission factor of 10 ppm, times 12, the molecular weight of carbon, divided by the 385,100,000 conversion factor, times the maximum waste gas flow through the coking operation main stack of 250,000 dscf/min, times 60 minutes/hour, and dividing by five to show hourly emissions from a single HRSG stack. The VOC emission factor of 10 ppm was based on Haverhill North Coke Company, Franklin Furnace, Ohio, emission test data provided by the permittee in the application for PTI P0104768.

The actual VOC emission rate, in pound per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. If required, the permittee shall conduct subsequent emission testing in accordance with Method 25 or 25A of 40 CFR Part 60, Appendix A.

The annual emission limitation was determined by multiplying the hourly emission rate of 0.93 pounds per hour by 960 hours/year, the total number of allowable HRSG bypass hours as specified in c)(7). Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual VOCemission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

ii. Emission Limitations – HRSG Bypass Stacks:

Hydrochloric acid (HCl) emissions shall not exceed 59.17 pounds per hour from a single HRSG bypass stack and 28.4 TPY from all HRSG bypass stacks combined. The annual limit excludes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The pound per hour HCl emission limitation is calculated by multiplying an uncontrolled emissions factor of 2.84 pounds of HCl per ton of coal charged, by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and dividing by five to show hourly emissions from a single HRSG stack. The HCl emission factor of 2.84 pounds/ton of coal is based upon the maximum coal blend specification provided by the permittee in the application for PTI P0104768.

The actual HCl emission rate, in pound per hour, shall be calculated from the results of the coal analyses and the record keeping requirements in d)(11) and d)(14).

The annual emission limitation was determined by multiplying the hourly emission rate of 59.17 pounds per hour by 960 hours/year, the total number of allowable HRSG bypass hours as specified in c)(7). Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual HClemission rate, in pounds per hour, from the results of the monthly coal analyses.

jj. Emission Limitation – HRSG Bypass Stacks:

Lead (Pb) emissions shall not exceed 0.055 TPY from all HRSG bypass stacks combined. The annual limit excludes emissions from the HRSG bypass stacks that occur during maintenance of the lime spray dryer/baghouse.

Applicable Compliance Method:

The emission limitation for waste gas bypass stacks was derived by multiplying the uncontrolled emission factor of 4.56E-03 pounds of lead per ton of wet coal charged (from the Haverhill April 2006 emission stack test) by the maximum capacity of 2500 tons of wet coal charged per day, dividing by 24 hours/day, and applying a stack test variability factor of 1.2 (20%) to arrive at an hourly uncontrolled emission rate of 0.114 pounds of lead per hour.

The annual emission limitation was determined by multiplying the hourly emission rate of 0.114 pounds per hour by 960 hours/year, the total number of allowable HRSG bypass hours as specified in c)(7). Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by using the actual leademission rate, in pounds per hour, from the results of the most recent stack test which demonstrated compliance.

kk. Emission Limitations – HRSG Bypass Stacks:

Mercury (Hg) emissions shall not exceed 0.0069 pound per hour from a single HRSG bypass stack. Mercury emissions shall not exceed 12.4 pounds per year from all HRSG bypass stacks and from the main stack during bypass of the lime spray dryer/baghouse, combined.

Mercury emissions during hydrated activated carbon (HAC) maintenance and downtime shall be included in the rolling, 12-month summation total.

Applicable Compliance Method:

The pound per hour mercury emission limitation is calculated by multiplying the emissions factor of 0.00033 pound of mercury per ton of coal charged, by the maximum capacity of 2500 tons of wet coal charged per day, divided by 24 hours/day, and dividing by five to show hourly emissions from a single HRSG stack. The mercury emission factor of 0.00033 pound/ton of coal is based upon AP-42 Section 12.2, Table 12.2-20, dated 5/2008.

The actual mercuryemission rate, in pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for mercury by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 29, or an alternative method approved by Ohio EPA. See f)(3).

The annual emission limitation is based upon the emission factor of 0.00033 pounds/ton of coal, the operational restriction in c)(4) of 912,500 TPY of coal, and the maximum percentage of coking process emissions not exhausted through the lime spray dryer/baghouse system (4.1%).

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements for bypass hours in d)(9) and d)(14) and summing the monthly emissions. Monthly emissions shall be calculated by using the actual mercuryemission rate, in pounds per hour, from the results of the most recent stack test.

ll. Emission Limitation – HRSG Bypass Stacks:

Visible particulate emissions from each waste heat stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

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).

mm. Emission Limitations – Pushing Operations:

Filterable PE, PM_{10} and $PM_{2.5}$ emissions shall not exceed 0.04 pound per ton of coke pushed, 14.3 pounds per hour and 13.09 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Subpart CCCCC, section 63.7290(a)(4) restricts particulate matter emissions from a pushing operation that employs a mobile control device that captures emissions during travel to 0.04 pound per ton of coke. The pound per hour

emission limitation reflects the potential to emit at the maximum capacity of 359 tons of coke pushed per hour (35.9 tons coke per push at 10 charges per hour).

The actual PE, PM_{10}, and $PM_{2.5}$ emission rates shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall conduct emission testing in accordance with Method 5 of 40 CFR Part 60, Appendix A and the procedures in 40 CFR 63.7322. See f)(2).

The PE rate is used as a surrogate for PM_{10} and $PM_{2.5}$ where PM_{10} and $PM_{2.5}$ emission factors are not available.

The annual emission limitation is based upon the emission limitation in Subpart CCCCC, section 63.7290(a)(4) at 0.04 pound of particulate per ton of coke, and the operational restriction in c)(4) which equates to a maximum annual volume of 654,449 TPY of coke. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. The actual PE, PM_{10}, and $PM_{2.5}$ emission rates, in pound of particulate per ton of coke, shall be calculated from the results of the most recent stack test which demonstrated compliance.

nn. Emission Limitations – Pushing Operations:

SO_2 emissions shall not exceed 0.098 pound per ton of coal charged, 49.0 pounds per hour, and 44.71 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

The pound per hour SO_2 emission limitation was calculated by multiplying the emissions factor of 0.098 pound of SO_2 per ton of coal charged by the maximum capacity of 500 tons of coal charged per hour (50 tons wet coal per charge at 10 charges per hour). The SO_2 emission factor of 0.098 pound/ton of coal is based upon AP-42 Section 12.2, Table 12.2-9, dated 5/2008.

The actual SO_2 emission rates, in pound per ton of coal and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for SO_2 by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 6. See f)(3).

The annual emission limitation is based upon the emission factor of 0.098 pound/ton of coal, and the operational restriction in c)(4) of 912,500 TPY of coal. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. The actual SO_2 emission rate, in pound per ton of coal, shall be calculated from the results of the most recent stack test which demonstrated compliance.

oo. Emission Limitations – Pushing Operations:

NOx emissions shall not exceed 0.019 pound per ton of coal charged, 9.5 pounds per hour, and 8.67 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

The pound per hour NOx emission limitation was calculated by multiplying the emissions factor of 0.019 pound of NOx per ton of coal charged by the maximum capacity of 500 tons of coal charged per hour (50 tons wet coal per charge at 10 charges per hour). The NOx emission factor of 0.019 pound/ton of coal is based upon AP-42 Section 12.2, Table 12.2-9, dated 5/2008.

The actual NOxemission rates, in pound per ton of coal and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for NOx by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 7E. See f)(3).

The annual emission limitation is based upon the emission factor of 0.019 pound/ton of coal, and the operational restriction in c)(4) of 912,500 TPY of coal. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months. The actual NOxemission rate, in pound per ton of coal, shall be calculated from the results of the most recent stack test which demonstrated compliance.

pp. Emission Limitations – Pushing Operations:

CO emissions shall not exceed 0.063 pound per ton of coal charged, 31.5 pounds per hour, and 28.74 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

The pound per hour CO emission limitation was calculated by multiplying the emissions factor of 0.063 pound of CO per ton of coal charged by the maximum capacity of 500 tons of coal charged per hour (50 tons wet coal per charge at 10 charges per hour). The CO emission factor of 0.063 pound/ton of coal is based upon AP-42 Section 12.2, Table 12.2-9, dated 5/2008.

The actual COemission rates, in pound per ton of coal and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for CO by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 10. See f)(3).

The annual emission limitation is based upon the emission factor of 0.063 pound/ton of coal, and the operational restriction in c)(4) of 912,500 TPY of coal. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's

emissions to the emissions for the preceding eleven calendar months. The actual COemission rate, in pound per ton of coal, shall be calculated from the results of the most recent stack test which demonstrated compliance.

qq. Emission Limitations – Pushing Operations:

Sulfuric acid mist (H_2SO_4) emissions shall not exceed 0.005 pound per ton of coal charged, 2.5 pounds per hour, and 2.28 TPY as a rolling 12-month summation.

Applicable Compliance Method:

The H_2SO_4 emission factor of 0.005 pound per ton of coal charged was based on emission testing done at the Haverhill North Coke Plant in Franklin Furnace, Ohio, as provided in the application for PTI P0104768. Compliance with the pound per hour H_2SO_4 limit shall be demonstrated by multiplying the H_2SO_4 emission factor of 0.005 pound per ton of coal charged by the maximum capacity of 500 tons of coal charged per hour (50 tons wet coal per charge at 10 charges per hour). The uncontrolled H_2SO_4 emission factor was based on emission testing done at the Haverhill North Coke Plant in Franklin Furnace, Ohio, as provided in the application for PTI P0104768. If required, compliance with the lb/hr emission limitation shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60 Appendix A, Methods 1 through 4 and 8, or an alternative method approved by Ohio EPA.

The annual emission limitation is based upon the emission factor of 0.005 pound/ton of coal, and the operational restriction in c)(4) of 912,500 TPY of coal. Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) by adding the current month's emissions to the emissions for the preceding eleven calendar months.

rr. Emission Limitations – Pushing Operations:

VOC emissions shall not exceed 10.0 pounds per hour and 9.13 TPY.

Applicable Compliance Method:

The pound per hour VOC emission limitation was calculated by multiplying an emission factor of 0.02 pound of VOC per ton of coal charged by the maximum capacity of 500 tons of coal charged per hour (50 tons wet coal per charge at 10 charges per hour). The 0.02 lb/ton of coal charged emission factor is based upon engineering estimates provided by the permittee in the application for PTI P0104768.

The actual VOCemission rates, in pound per ton of coal and pounds per hour, shall be calculated from the results of the most recent stack test which demonstrated compliance. The permittee shall demonstrate compliance with the emission limitations for VOC by conducting emission tests in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4, and 25. See f)(3).

The annual emission limitation is based upon the emission factor of 0.02 pound/ton of coal, and the operational restriction in c)(4) of 912,500 TPY of coal. Compliance with the annual emission limitation shall be demonstrated under the record keeping requirements in d)(4). The actual VOCemission rate, in pound per ton of coal, shall be calculated from the results of the most recent stack test which demonstrated compliance.

ss. Emission Limitations – Pushing Operations:

Visible particulate emissions from the flat push hot car vented to multiclone dust collector stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

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).

tt. Emission Limitation – Coking Operations:

The coke oven emissions from the nonrecovery coke oven batteries shall not exceed 0.0 percent leaking coke oven doors, as determined by the procedures in 40 CFR Part 63, Section 63.309(d)(1); or

The permittee shall monitor and record, once per day of operation, the pressure in each oven or in a common battery tunnel to ensure that the ovens are operated under a negative pressure.

Applicable Compliance Method:

Should the permittee elect not to monitor and record, once per day of operation, the pressure in each oven or in a common battery tunnel to ensure that the ovens are operated under a negative pressure, compliance with the limit 0.0 per cent leaking coke oven doors compliance will be demonstrated in accordance with the procedures and requirements of method 303 or 303A in appendix A of 40 CFR Part 63, Section 63.309.

uu. Emission Limitations:

HAP emissions, excluding HCl, for emissions units P001 and P901 combined shall not exceed 3.6 TPY.

HCl emissions for emissions units P001 and P901 combined shall not exceed 118.04 TPY.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by summing the monthly emissions from the record keeping requirements in d)(4) and d)(14) for the calendar year. Monthly emissions shall be determined by calculating the sum of i. through v. below:

i. Coking emission control system main stack

Annual emissions shall be determined by multiplying the summation of the individual HAP pollutant pound per ton emission factors [Table 12.2-20 of AP-42 Section 12.2 dated May 2008] by the maximum annual coal charge rate divided by 2000 lbs/ton. Metals are then multiplied by 5% to reflect the 95% control efficiency of the main stack spray dryer except for mercury. Testing of the main stack spray dryer will determine the mercury control efficiency of the main stack spray dryer.

ii. Pushing stack

Annual emissions shall be determined by multiplying the emission factor of 0.00024 lb total combined HAPs/wet ton coal charged, multiplying the emission factor of each of the following: 0.00021 lb Benzene Soluble Compounds (BSO)/wet ton coal charged, 0.000012 lb Arsenic/wet ton coal charged, 0.000015 lb lead/wet ton coal charged, and 0.0000021 lb manganese/wet ton coal charged by the wet tons of coal charged per year divided by 2000 lbs per ton. Emissions factors are from October 1989 Jewell Stack Test except for lead obtained from AP-42, table 12.2-10 dated May 2008.

iii. Charging control system-baghouse stack

Annual emissions shall be determined by multiplying the emission factor, in pounds/ton, times the maximum tons of coal charged per year, divided by 2,000 pounds/ton. The HAPs emission factor was obtained from AP-42, Section 12.2, Table 12.2-21, dated May 2008.

iv. Quench tower

Annual emissions shall be determined by multiplying the summation of the HAP emission factor, in pounds/ton, times the wet tons of coal charged per year, and divide by 2000 pounds/ton. The HAPs emission factor shall be calculated from the results of the most recent quench water analysis which demonstrated compliance.

v. HRSG and Spray Dryer (SD) bypass stacks

Annual emissions shall be determined by multiplying the summation of the individual HAP pollutant pound per ton emission factors [Table 12.2-20 of AP-42 Section 12.2 dated May 2008 and the Haverhill April 2006 stack test for lead] by the tons of coal charged per year multiplied by an

estimated percentage of total waste gas venting through the 5 vent stacks divided by 2,000 lbs/ton.

vv. Emission Limitation:

The total NOx emissions from all permitted operating scenarios for this emissions unit, including normal coking operations,pushing operations, lime spray dryer/fabric filter maintenance, and emissions from the HRSG bypass stack(s) during heat recovery steam generator(s) maintenance, shall not exceed 477.4 TPY as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the 12-month rolling emission limitation shall be demonstrated under the record keeping requirements in d)(4) and d)(14) by adding the current month's emissions to the emissions for the preceding eleven calendar months.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit 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. The emission testing for the HRSG bypass stacks shall be conducted during the scheduled by-passes of a heat recovery steam generator for purposes of the annual heat recovery steam generator inspection and maintenance. The HRSG bypass stack testing is only required on one of the five stacks.

b. The emission testing shall be conducted to demonstrate compliance with the following allowable limitations:

i. Main stack – coking operations: PE, NOx;

ii. Baghouse stack - coal charging operations: PE;

iii. HRSG bypass stacks: PE, SO_2; and,

iv. Multiclone stack – pushing operations: PE.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

PE Methods 1 through 4 and 5, 40 CFR Part 60, Appendix A

NOx Methods 1 through 4 and 7E, 40 CFR Part 60, Appendix A

SO_2 Methods 1 through 4 and 6C, 40 CFR Part 60, Appendix A

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The PE test method and procedures for the pushing operations shall also comply with all requirements of 63.7322 of Subpart CCCCC.

d. The following additional information shall be documented during all emission testing for PE, SO_2, and NOx:

i. Hourly wet coal charge rates, in tons/hr and the number of charges per hour to allow a determination of an emission factor in pounds of pollutant per ton of coal processed;

ii. Hourly coke push rates, in tons/hr and the number of pushes per hour to allow a determination of an emission factor in pounds of pollutant per ton of coke produced;

iii. Pressure drop readings approximately every 15 minutes during the test(s) for:

(a) each charging baghouse when charging emissions are being tested;

(b) the lime spray dryer baghouse when the main stack emissions are tested;

(c) each pushing multiclone when pushing emissions are being tested*;*

iv. lime spray dryer operating parameters when the main stack emissions are being tested; and

v. main stack baghouse cleaning cycle.

e. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

f. 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).

g. 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.

h. 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.

(3) The permittee shall conduct, or have conducted, emission testing for this emissions unit 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. The emission testing for the HRSG bypass stacks shall be conducted during the scheduled by-passes of a heat recovery steam generator for purposes of the annual heat recovery steam generator inspection and maintenance. The HRSG bypass stack testing is only required on one of the five stacks.

b. The emission testing shall be conducted to demonstrate compliance with the following allowable limitations:

i. Main stack – coking operations: CO, HCl, H_2SO_4, Mercury;

ii. HRSG bypass stacks: Mercury; and,

iii. Multiclone stack – pushing operations: SO_2, NOx, CO, and VOC.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) pursuant to 40 CFR Part 60, Appendix A:

CO	Methods 1 through 4 and 5
NOx	Methods 1 through 4 and 7E
SO_2	Methods 1 through 4 and 6C
VOC	Methods 1 through 4 and 25A
HCl	Methods 1 through 4 and 26A
H_2SO_4	Methods 1 through 4 and 8
Mercury	Methods 1 through 4 and 29

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The following additional information shall be documented during all emission testing for CO, NOx, SO_2, VOC, HCl, H_2SO_4, and mercury:

   i. Hourly wet coal charge rates, in tons/hr and the number of charges per hour to allow a determination of an emission factor in pounds of pollutant per ton of coal processed;

   ii. Hourly coke push rates, in tons/hr and the number of pushes per hour to allow a determination of an emission factor in pounds of pollutant per ton of coke produced; and

   iii. lime spray dryer operating parameters when the main stack emissions are being tested.

e. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

f. 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).

g. 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.

h. 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.

(4) The permittee shall comply with the applicable performance testing and compliance requirements required under 40 CFR Part 63, Subpart CCCCC, including the following sections:

63.7320(a)	Initial performance testing for pushing emissions
63.7326(a)	Initial compliance requirements for pushing emissions
63.7320(c), 63.7327(c), 63.7328(a)-(d)	Initial compliance requirements for work practice standards and operations and maintenance
63.7321	Subsequent performance test requirements [see f)(2) above]
63.7322(a) and (b)	Performance test requirements and test methods
63.7333(a)	Continuous compliance demonstration requirements

g) Miscellaneous Requirements

(1) None.