



2/19/2015

Certified Mail

Diana Starkweather  
 Haverhill Coke Company LLC  
 2446 Gallia Pike  
 Franklin Furnace, OH 45629-8837

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 0773000182  
 Permit Number: P0106016  
 Permit Type: Administrative Modification  
 County: Scioto

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

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

Environmental Review Appeals Commission  
 77 South High Street, 17th Floor  
 Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Portsmouth City Health Dept., Air Pollution Unit at (740)353-5156 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: U.S. EPA  
Portsmouth; Kentucky; West Virginia



## Response to Comments

Facility ID:	0773000182
Facility Name:	Haverhill Coke Company LLC
Facility Description:	Two 100 oven nonrecovery coke batteries, two quench towers, paved roads, coal handling, storage piles, coke processing.
Facility Address:	2446 Gallia Pike Franklin Furnace, OH 45629-8837 Scioto County
Permit:	P0106016, Permit-To-Install - Administrative Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Portsmouth Times on 08/09/2014. The comment period ended on 09/08/2014.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

### 1. **Topic: None**

- a. Comment: The draft modification to revise the coke crushing/screening baghouse pressure drop range is unreasonable and unlawful. Revising the pressure drop range from 3 to 12 inches to 1 to 12 inches of water decreases the pollution capture control efficiency of the baghouse and therefore increases the emissions from this baghouse – a known source of excess emissions and partial cause of the daily disruption and nuisance conditions suffered by the Graffs and Maddoxes.
- b. Response: Haverhill Coke has withdrawn the request to revise the coke crushing/screening baghouse pressure drop. Therefore, the pressure drop range will remain at 3 to 12 inches.
- c. Comment: The coke breeze fines (left over from the production of coke) should not be stored in the open. Haverhill's past and current practice has been to store coke breeze in the open coke piles. As stated above, particulate and other emissions from Haverhill, including the open coke piles, have adversely impacted the Graffs and Maddoxes. The draft modification to allow coke breeze and other types of coke to be stored in Haverhill's two open coke piles is unjustifiable, unreasonable, and unlawful grant for Haverhill to continue to emit excess pollution and create a public nuisance.



In addition, the "Description" section of C.1 contains a colorable "permit condition" that is illusory because it is not found in the emission limitations section of the permit. The "Description" section recites that any combination of coke materials stored in the coke piles must contain a coke breeze silt content of less than 1%. First, there is no logical, scientific, or factual basis to conclude that this condition, if it was in the permit, will actually do anything to control emissions. Second, the enforceability of this "condition" is called into question, as the term does not appear in the emission limitations section of the permit.

- d. Response: Haverhill Coke has historically stored coke in open piles and coke breeze has been stored in a coke breeze silo. The application provides silt content data to support that the silt content of the coke breeze stored at Haverhill Coke is less than the silt content of the coke stored in the open piles. Because the silt content of the coke breeze is less than the silt content of the coke, no additional emissions are expected from the outdoor storage of coke breeze. There was a historic incident of malfunctions from the coke screening baghouse in 2008. In response to a Notice of Violation letter issued to the company on August 19, 2008, Haverhill Coke implemented a preventative maintenance and malfunction abatement plan for the baghouse and has since replaced the baghouse with an identical baghouse in 2010. There have not been any complaints of fugitive dust regarding coke fines in the vicinity of the plant since February 2010. In addition, Haverhill Coke also formalized a routine and documented work order system to properly track and maintain the screening baghouse maintenance.

The intent of the description section of C.1 is to explain the purpose of the administrative modification of the coal and coke storage piles emission unit and is not a permit condition. As discussed above, Haverhill Coke provided data in the permit application to support that the silt content of the coke breeze stored at Haverhill Coke is less than the silt content of the coke; therefore, no additional emissions are expected from the outdoor storage of coke breeze.

- e. Comment: The draft modification seeks to revise the current individual (and routinely violated) limit of 192 hours per HRSG to a combine limit of 1,920 hours for the 10 HRSGs at the facility. This will "allow" future venting that has chronically violated Haverhill's permit in the past and will allow these heretofore illegal spikes to continue. This reward for past pollution and the conditions it has caused is unreasonable and unlawful.

The modification removes the limitations on density and intensity of emissions from any one stack and allows more venting for ovens/equipment that delay chronic problems. Further, the change encourages the use of all 1,920 bypass hours, instead of requiring the immediate repair of each such chronic problems. Allowing more emissions from particular chronic problem vents, adversely affects the public having greater proximity to those vents. The change ignores the entire history of plant bypass problems and encourages more bypass venting instead of discouraging the pollution.

In addition, the proposed consent decree currently lodged in the federal District Court for the Southern District of Illinois purports to require the installation of redundant HRSGs, ostensibly to minimize bypass venting time. The draft modification further undermines an already deficient and illusory proposed consent decree.

- f. Response: The revision to allow combining the individual limit of 192 hours per HRSG to a combined 1,920 hours for all 10 HRSGs at the facility for HRSG maintenance does not result in an increase in annual emissions. Since 2012, Haverhill Coke has replaced five HRSG economizers and in efforts to reduce the likelihood of repeated tube leaks has implemented additional replacement criteria, welding procedures, and pressure testing techniques for boiler



tubes during planned maintenance activities. Furthermore, in accordance with the final effective consent decree, Haverhill Coke has completed installation of the redundant HRSG and associated common tunnel on Haverhill Coke Phase II and are currently in the process of testing the system. All of these steps have and will result in less bypass venting episodes.

- g. Comment: Past deviation reports show that most exceedances of the SO<sub>2</sub> emission limits at Haverhill occur during periods of maintenance on components of the lime spray dryer. The draft modification will exempt Haverhill from the waste gas stack pound per hour SO<sub>2</sub> emission limit and the required minimum pollution control efficiency of 92% for SO<sub>2</sub> control during periods of maintenance on the lime spray dryer and ancillary equipment (e.g. atomizer replacements). Exempting this facility from its SO<sub>2</sub> limits during maintenance periods – documented problematic times – and thereby sanctioning current (or even increased) levels of excess SO<sub>2</sub> pollution is unjustifiable, unlawful, and unreasonable.

In addition, the draft modification allows this exemption to be used for one 3-hour block per week for P901 and for one 3-hour block per week for P902. The proposed modification will allow for a staggering total of 104 “free passes” to pollute at unlimited levels each year.

In addition, Sun Coke and Haverhill have represented to the Graffs, the State of Ohio, the US EPA, and the US Department of Justice that the problems with the FGDs have been “fixed”, including the lime spray dryer and atomizers. This makes the draft modification even more unjustifiable, unlawful, and unreasonable.

- h. Response: Ohio EPA believes the revision allowing Haverhill Coke the exemption from the waste gas stack pound per hour SO<sub>2</sub> emission limit and associated minimum pollution control efficiency of 92% for SO<sub>2</sub> control is reasonable and will not result in an increase in emissions. The exemption is limited to routine maintenance activities such as atomizer replacements and limited to a maximum of one 3-hour block per week for each coke oven battery emission unit (P901 & P902). The facility has an ambient air monitoring network for SO<sub>2</sub> and also has a continuous emissions monitoring system (CEMS) in place for monitoring SO<sub>2</sub> emissions from the waste gas stack to monitor compliance with this exemption.

- i. Comment: The proposed consent decree purports to require coal charge weights to be reduced during bypass venting events as an emissions reduction measure. Haverhill’s current permit (conditions C.3.d)(15) and C.4.d)(15) require P901 and P902 to be operated in a manner consistent with good air pollution control practices for minimizing emissions, during periods of startup, shutdown, and malfunction. These practices allegedly consist of reducing coal charge weights during these periods.

The draft modification changes the wet coal usage rate from a maximum daily limit to a rolling, 7-day average limit and undermines the consent decree’s purported requirements and Haverhill’s permit conditions (not part of this draft modification). Allowing coal usage to be averaged over 7 days will allow Haverhill to “make up” for any lost production due to decreasing charge weights by increasing coal usage rates on subsequent charge to above what the current daily limit allows and will undo any benefit to the environment or community resulting from the reduced charges. Therefore, this draft condition is unreasonable and unlawful.

In addition, the lodged consent decree’s purported requirement of redundant HRSGs to minimize bypass venting time contradicts the propriety of this relaxed limit. There is no justification to allowing more coal to be charged, and thereby more pollution to be emitted.



- j. Response: The request to change the wet coal usage rate from a maximum daily limit to a rolling, 7-day average limit was intended to allow more flexibility to recover from breakdowns, weather or other delays. Historically, the deviations Haverhill Coke has had regarding the 2,400 tons wet coal per day restriction have been during days of equipment breakdowns during adverse weather conditions. Ohio EPA believes the request to revise the wet tons coal charged limitation to a 7-day rolling average is reasonable.



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
Haverhill Coke Company LLC**

Facility ID:	0773000182
Permit Number:	P0106016
Permit Type:	Administrative Modification
Issued:	2/19/2015
Effective:	2/19/2015





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Haverhill Coke Company LLC

**Table of Contents**

Authorization .....	1
A. Standard Terms and Conditions .....	4
1. Federally Enforceable Standard Terms and Conditions .....	5
2. Severability Clause .....	5
3. General Requirements .....	5
4. Monitoring and Related Record Keeping and Reporting Requirements.....	6
5. Scheduled Maintenance/Malfunction Reporting .....	7
6. Compliance Requirements .....	7
7. Best Available Technology .....	8
8. Air Pollution Nuisance .....	9
9. Reporting Requirements .....	9
10. Applicability .....	9
11. Construction of New Sources(s) and Authorization to Install .....	9
12. Permit-To-Operate Application .....	10
13. Construction Compliance Certification .....	11
14. Public Disclosure .....	11
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations .....	11
16. Fees.....	11
17. Permit Transfers .....	11
18. Risk Management Plans .....	11
19. Title IV Provisions .....	11
B. Facility-Wide Terms and Conditions.....	12
C. Emissions Unit Terms and Conditions .....	19
1. F002, Coal & coke storage piles .....	20
2. F004, Coke and breeze handling and processing .....	30
3. P901, Waste Gas from Coking, Charging, & Pushing (AB Battery) .....	38
4. P902, Waste Gas from Coking, Charging, & Pushing (CD Battery).....	88





**Final Permit-to-Install**  
Haverhill Coke Company LLC  
**Permit Number:** P0106016  
**Facility ID:** 0773000182  
**Effective Date:** 2/19/2015

## Authorization

Facility ID: 0773000182  
Facility Description: Two 100 oven nonrecovery coke batteries, two quench towers, paved roads, coal handling, storage piles, coke processing.  
Application Number(s): A0038438, A0039257, A0044391, M0002212  
Permit Number: P0106016  
Permit Description: Administrative modification at non-recovery coke oven battery facility to emissions units F002, F004, P901, and P902 to allow the following: F002 - to allow for the storage of coke breeze in the open coke pile; F004 - to revise the baghouse pressure drop range based on manufacturer's recommendations and operating experience; P901 & P902 - to revise the baghouse pressure drop range, revise the individual HRSG maintenance limit of 192 hours per year to a combined HRSG maintenance limit of 1,920 hours per year for all 10 HRSGs, to allow the waste gas stack pound per hour SO<sub>2</sub> limit to not apply during lime spray dryer maintenance (e.g., atomizer replacements), to allow the daily coal charge rate to be based on a 7-day rolling average; P902 only to allow minor revisions to the mercury monitoring; along with corrections/revisions to the terms and conditions for each emissions unit .  
Permit Type: Administrative Modification  
Permit Fee: \$1,975.00  
Issue Date: 2/19/2015  
Effective Date: 2/19/2015

This document constitutes issuance to:

Haverhill Coke Company LLC  
2446 Gallia Pike  
Franklin Furnace, OH 45629-8837

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:

Portsmouth City Health Dept., Air Pollution Unit  
605 Washington Street  
3rd Floor  
Portsmouth, OH 45662  
(740)353-5156

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

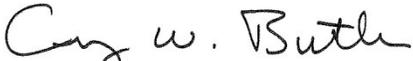


**Final Permit-to-Install**  
Haverhill Coke Company LLC  
**Permit Number:** P0106016  
**Facility ID:** 0773000182  
**Effective Date:** 2/19/2015

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:** P0106016  
**Permit Description:** Administrative modification at non-recovery coke oven battery facility to emissions units F002, F004, P901, and P902 to allow the following: F002 - to allow for the storage of coke breeze in the open coke pile; F004 - to revise the baghouse pressure drop range based on manufacturer's recommendations and operating experience; P901 & P902 - to revise the baghouse pressure drop range, revise the individual HRSG maintenance limit of 192 hours per year to a combined HRSG maintenance limit of 1,920 hours per year for all 10 HRSGs, to allow the waste gas stack pound per hour SO2 limit to not apply during lime spray dryer maintenance (e.g., atomizer replacements), to allow the daily coal charge rate to be based on a 7-day rolling average; P902 only to allow minor revisions to the mercury monitoring; along with corrections/revisions to the terms and conditions for each emissions unit .

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

<b>Emissions Unit ID:</b>	<b>F002</b>
Company Equipment ID:	Coal & coke storage piles
Superseded Permit Number:	P0104223
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F004</b>
Company Equipment ID:	Coke and breeze handling and processing
Superseded Permit Number:	P0104223
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P901</b>
Company Equipment ID:	Waste Gas from Coking, Charging, & Pushing (AB Battery)
Superseded Permit Number:	07-00511
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P902</b>
Company Equipment ID:	Waste Gas from Coking, Charging, & Pushing (CD Battery)
Superseded Permit Number:	07-00511
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Haverhill Coke Company LLC  
**Permit Number:** P0106016  
**Facility ID:** 0773000182  
**Effective Date:** 2/19/2015

## **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 Portsmouth City Health Dept., Air Pollution Unit.



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

## **5. Scheduled Maintenance/Malfunction Reporting**

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

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

## **6. Compliance Requirements**

- a) 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 Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Portsmouth City Health Dept., Air Pollution Unit. 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 before operating 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 entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. Public Disclosure**

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

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly 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.



**Final Permit-to-Install**  
Haverhill Coke Company LLC  
**Permit Number:** P0106016  
**Facility ID:** 0773000182  
**Effective Date:** 2/19/2015

## **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) B.2 and B.3.
2. Ambient Air Monitoring for Particulate Matter 10 Microns and Smaller in Diameter (PM<sub>10</sub>), Sulfur Dioxide (SO<sub>2</sub>) and Periodic Sampling for Hazardous Air Pollutants (HAPS)

The permittee shall establish and operate ambient PM<sub>10</sub>, SO<sub>2</sub>, and HAP monitoring sites for this facility. The number and location of monitoring sites shall be based on accepted modeling practice and shall adequately monitor areas of maximum impact of the facility emissions and the background concentrations. Determination of the sampling locations shall be coordinated with, and subject to the prior approval of, the Ohio EPA. Within 45 days after the effective date of this permit, the permittee shall submit a plan describing the proposed network. This plan shall include, but not limited to, one (1) HAP monitoring site to be located near the housing subdivision which is adjacent to the proposed facility location, one (1) HAP monitoring site each to be located upwind and downwind of the proposed facility location, and one (1) meteorological site to be located close to the proposed facility location.

Following approval of the PM<sub>10</sub>, SO<sub>2</sub> and Periodic HAP sampling network plan, 90 days will be allowed to locate the samplers in accordance with the plan. All samplers shall be sited and located in accordance with the requirements of the 40 CFR Part 58 and any subsequent amendments.

The sites shall be equipped with PM<sub>10</sub> or SO<sub>2</sub> samplers meeting the reference methods specified in 40 CFR Parts 50 and 53 with the additional requirement that each particulate (PM<sub>10</sub>) instrument shall be equipped with a continuous flow meter (recording transducer), unless the instrument uses volumetric flow control.

#### PM<sub>10</sub> Operation

The permittee shall operate one of the PM<sub>10</sub> monitoring sites, specified by Ohio EPA, on an every other day schedule. The other sites will run on the same schedule as the Ohio air sampling network [one day in six] and in accordance with the following requirements:

- a) The operating procedures identified in 40 CFR Parts 50 and 58 and the "Quality Assurance Handbook for Air Pollution Measurement Systems" Volume I - Principles (EPA-600/9-76-005) and Volume II - Ambient Air Specific Methods (EPA-600/4-77-027a) and the manufacturer's operating manual shall be followed.
- b) The flow rate of each PM<sub>10</sub> sampler shall be calibrated after every 500 hours of operation and after any instance of major repair or maintenance.
- c) An operator's log book shall be maintained for each site location with a format and content as specified in guidance provided by the Ohio EPA.

#### Sulfur Dioxide Instrument Operation

The SO<sub>2</sub> ambient monitors will run continuously 24 hours per day, 365 days per year to measure ambient air except during maintenance, repair, calibration or periodic checks.

#### Hazardous Air Pollutant Operation



Hazardous Air Pollutant sampling will follow US EPA Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air Method TO-15 for sampling Volatile Organic Compounds. The samples will be collected for a minimum of 24 hours. The collection frequency will be no less than once every 12 days in accordance with the USEPA Urban Air Toxics Monitoring Program.

The compounds sampled for will include at least the following 42 compounds as provided for by Method TO-15. Those compounds include:

No.	Hazardous Air Pollutants	No.	Hazardous Air Pollutants
1	1,2- Dibromoethane	27	Cumene
2	1,2- Dichloroethane (EDC)		
3	1,3-Butadiene	29	Ethylbenzene
4	1,1-Dichloroethane		
5	1,1,2,2-Tetrachloroethane		
6	1,2,4-Trichlorobenzene	32	Hexachlorobutadiene
7	1,1,2-Trichloroethane		
8	1,2-Dichloropropane (propylene dichloride)		
9	1,3-Dichloropropene	35	m-Xylene
10	1,1,1-Trichloroethane	36	
11	1,1-Dichloroethylene	37	Methyl isobutyl ketone
12	1,4-Dichlorobenzene	38	Methyl tert-butyl ether (MTBE)
13	2,2,4-Trimethylpentane		
14	2-Chloro-1,3-butadiene (chloroprene)	40	Methylene Chloride
15	Acetonitrile	41	n-Hexane
16	Acrylonitrile	42	o-Xylene
		43	p-Xylene
18	Benzene	44	Styrene
		45	Tetrachloroethylene (PCE)
20	Bromoform (tribromomethane)	46	Toluene
21	Bromomethane (methyl bromide)	47	Trichloroethylene (TCE)
22	Carbon Tetrachloride	48	Vinyl chloride
23	Chlorobenzene	49	Vinyl acetate



No.	Hazardous Air Pollutants	No.	Hazardous Air Pollutants
24	Chloroethane (ethyl chloride)	50	Vinyl bromide
25	Chloroform	51	Xylene (mixed)
26	Chloromethane (methyl chloride)		

### Quality Assurance

The permittee shall meet the quality assurance activities specified in 40 CFR Part 58, Appendix B except that at least 25% of the total number of PM<sub>10</sub> sites shall be collocated with a duplicate sampler. One of the collocated sites shall be at the site with the highest expected 24-hour pollutant concentration. The collocated monitor(s) shall run on a one day in six schedule. Equipment siting and performance specifications must be in accordance with "Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)," (EPA-450/4-80-012).

Other quality assurance activities that are specified in 40 CFR Part 58, Appendix B include quarterly instruments accuracy audits of all of the PM<sub>10</sub> and SO<sub>2</sub> monitors and precision checks performed at least bi-weekly on the SO<sub>2</sub> monitors. Additional information and guidance about these activities is available from the Ohio EPA Air Monitoring Section.

The Air Monitoring Section and Ohio EPA District Office and local air agency personnel shall be provided with access to each site location. The site operator and/or supervisor shall accompany the Air Monitoring Section, Ohio EPA District Office and/or local air agency personnel on any site inspection or audit, and respond to inquiries regarding instrument operations and maintenance.

Appropriate corrective actions must be taken by the permittee following the identification of any problem by the independent auditor, or Air Monitoring Section, Ohio EPA District Office and/or local air agency personnel.

### Data Capture

Data capture shall be no less than 75% of the total possible samples to be collected on a quarterly basis. The following table summarizes the sample numbers by pollutant:

<u>Pollutant</u>	<u>Total Samples/Quarter/Site</u>	<u>Required Minimum Samples</u>
SO <sub>2</sub>	2160 - 2208* / 1 hr samples	1620 - 1656
PM <sub>10</sub>	45 / 24 hr. samples Every-other-day sampler	34
PM <sub>10</sub>	15 / 24 hr. samples 1-in- 6 day sampler	12
<u>Pollutant</u>	<u>Total Samples/Quarter/Site</u>	<u>Required Minimum Samples</u>
PM <sub>10</sub> Collocated	15 / 24 hr. sampler	12



1-in-6 day sampler

HAP                                      10 / 24 hr. samples                                      5

\* depending on the number of hours per quarter

**Reporting Requirements for the PM<sub>10</sub>, SO<sub>2</sub> and HAPs Ambient Air Monitoring Network Audit and Quality Assurance Results**

All air quality measurement data shall be reported to the Air Monitoring Section of the Ohio EPA, Division of Air Pollution Control in Columbus, within 18 days after the end of each calendar quarter, beginning with the first quarter after commencement of monitor operation. For HAPs measurements the data shall be reported within 45 days of the end of the calendar quarter. All ambient data shall be submitted on magnetic media (diskettes) or via e-mail in Aerometric Information Retrieval System (AIRS) format for direct entry into the US EPA's AIRS database system.

Independent audit (accuracy) results and precision results must be submitted quarterly to the Air Monitoring Section of the Ohio EPA, Division of Air Pollution Control in Columbus, and the appropriate Ohio EPA District Office or local air agency, within 45 days after the end of each calendar quarter, beginning with the first quarter after commencement of monitor operation.

The permittee shall notify the Portsmouth Local Air Agency as soon as they are aware of any exceedance of the 24-hour PM<sub>10</sub> or the 1-hour SO<sub>2</sub> short-term NAAQS standards.

**Continued Operation**

The permittee shall continue to operate the PM<sub>10</sub> and SO<sub>2</sub> ambient monitoring network as described in the permit condition for at least five years after commence of operation. Haverhill ceased operation of the ambient HAP monitoring network on June 30, 2014.

- The following emissions units are subject to the OEPA air toxics policy: P901, P902, P001 and P002. To ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxics Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxics Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant:        arsenic  
TLV (Ug/m3):    10  
Maximum Hourly Emission Rate (lbs/hr):    0.070  
Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3):    0.146  
MAGLC (Ug/m3):    0.238

Pollutant:        benzene  
TLV (Ug/m3):    32,000



Maximum Hourly Emission Rate (lbs/hr): 0.105  
Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3): 0.25  
MAGLC (Ug/m3): 762

Pollutant: mercury  
TLV (Ug/m3): 10  
Maximum Hourly Emission Rate (lbs/hr): 0.034  
Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3): 0.151  
MAGLC (Ug/m3): 0.238

Pollutant: naphthalene  
TLV (Ug/m3): 52,000  
Maximum Hourly Emission Rate (lbs/hr): <0.066  
Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3): 0.166  
MAGLC (Ug/m3): 1,240

Pollutant: phosphorus  
TLV (Ug/m3): 100  
Maximum Hourly Emission Rate (lbs/hr): 0.22  
Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3): 0.373  
MAGLC (Ug/m3): 2.38

Pollutant: toluene  
TLV (Ug/m3): 188,000  
Maximum Hourly Emission Rate (lbs/hr): 0.108  
Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3): 0.241  
MAGLC (Ug/m3): 4,480

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

- a) changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)" than the lowest TLV value specified in the above table;
- b) changes to the emissions unit or its exhaust parameters (e.g., increased emission rate {not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit}, reduced exhaust gas flow rate, and decreased stack height);
- c) changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and,
- d) changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:



- e) the change is not otherwise considered a “modification” under OAC Chapter 3745-31;
  - a. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
  - b. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determined that the changed emissions unit still satisfies the Air Toxics Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a “modification” as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:

- a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and
  - b. a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.
4. The following emissions units contained in this permit are subject to MACT Subpart L and Subpart CCCCC: P901 & P902. The complete MACT requirements, including the MACT General Provisions may be assessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://efcr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District Office or local air agency.



**Final Permit-to-Install**  
Haverhill Coke Company LLC  
**Permit Number:** P0106016  
**Facility ID:** 0773000182  
**Effective Date:** 2/19/2015

## **C. Emissions Unit Terms and Conditions**



**1. F002, Coal & coke storage piles**

**Operations, Property and/or Equipment Description:**

Coal and coke storage piles

Administrative modification to allow for the forms of coke stored in the storage piles to include run of oven coke, screened coke, coke breeze, and quench pit coke or any combination of those materials based on lab report results indicating the HCC coke breeze silt content is less than the 1% assumed for coke. Therefore, allowing for the storage of coke breeze in the open coke pile at transfer tower 2, the emergency coke pile at transfer tower #1 and at the emergency coke storage coke pile will not increase potential emissions above existing permitted limits.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Fugitive Particulate Matter (PM) emissions shall not exceed 7.61 tons per year.  <u>Batteries A and B storage piles</u> There shall be no visible emissions except for 3 minutes in any hour.  <u>Batteries C and D storage piles</u> There shall be no visible emissions except for one minute in any hour.  <u>Emergency coke storage pile(s)</u> There shall be no visible emissions except for one minute in any hour.  See b)(2)g.  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with OAC rules 3745-31-10 through 20.
b.	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	Fugitive Particulate Matter emissions of less than 10 microns (PM <sub>10</sub> ) shall not exceed 3.78 tons per year.

(2) Additional Terms and Conditions

- a. The storage piles that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 and 3745-31-10 through 20 are listed below:

coal storage pile(s)  
 coke storage pile(s)  
 emergency coke storage pile(s)

- b. The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to the following control measures to ensure compliance:

	<u>Load-In</u>	<u>Load-Out</u>
open coal pile	stacking conveyor and water sprays	under pile gravity feed to conveyor
enclosed coal pile	dome enclosure	under pile gravity feed to conveyor
Open coke pile (transfer tower #2)	conveyor	front end loader
emergency coke pile (transfer tower #1)	conveyor	front end loader
emergency coke pile (15 acres)	truck	front end loader

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

- c. The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that



the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.

- d. The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the open coal storage pile with water at sufficient treatment frequencies to ensure compliance and dome enclosure of enclosed coal storage pile . Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- e. The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- f. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-10 through 20.
- g. If the permittee combines the storage piles for Batteries A& B and Batteries C & D into one common pile, then BAT for all storage piles shall be one minute in any hour.
- h. For the purposes of this permit, "Coke" includes "Run of Oven Coke", "Screened Coke", "Coke Breeze", and "Quench Pit Coke" or any combination of these materials.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

storage pile identification   minimum load-in inspection frequency

All

Daily





and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and,
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

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

f) Testing Requirements

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

Fugitive PM emissions shall not exceed 7.61 tons per year.

Applicable Compliance Method:

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

- i. coal pile load-in

Open:

Multiply the maximum tons of coal handled per year times the 0.001 pound/ton particulate emission factor times 0.30 assuming a 70% control efficiency for the stacking conveyor and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Multiply the maximum tons of coal handled per year times the 0.001 pound/ton particulate emission factor time 2 enclosed transfer points times 0.05 assuming a 95% control efficiency for the enclosure and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.



Domed:

Multiply the maximum tons of coal handled per year times the 0.001 pound/ton particulate emission factor times 0.05 assuming a 95% control efficiency and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

- ii. coal pile wind erosion

Open:

Multiply the maximum area of the coal storage pile, in acres, times the 366, the maximum number of days per year, times the 7.99 pound/day/acre emission factor times the 0.50 assuming a 50% control efficiency for the water sprays and divide by 2,000 pounds per ton. The particulate emission factor was calculated in accordance with AP-40, Section 4, Equation 5. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 1/80.

Domed:

Multiply the maximum area of the coal storage pile, in acres, times the 366, the maximum number of days per year, times the 7.99 pound/day/acre emission factor times the 0.05 assuming a 95% control efficiency for enclosure and divide by 2,000 pounds per ton. The particulate emission factor was calculated in accordance with AP-40, Section 4, Equation 5. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 1/80.

- iii. coal pile load-out

Open:

Multiply the maximum tons of coal handled per year times the 0.0010 pound/ton emission factor times 0.05 assuming a 95% control efficiency for underpile conveyor, and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Domed:

Multiply the maximum tons of coal handled per year times the 0.0010 pound/ton emission factor times 0.05 assuming a 95% control efficiency for underpile conveyor, and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.



iv. coke pile load-in

Open (partial enclosure):

Multiply the maximum tons of coke handled per year times the 0.00129 pound/ton particulate emission factor times 0.30 assuming a 70% control efficiency for partial enclosure and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Open (uncontrolled)

Multiply the maximum tons of coke handled per year for the emergency coke pile (250,000 tons) times the 0.00129 pound/ton particulate emission factor and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95.

v. coke pile wind erosion

Open:

Multiply the maximum area of the coke storage pile(s), in acres, times the 366, the maximum number of days per year, times the 1.74 pound/day/acre emission factor and divide by 2,000 pounds per ton. The particulate emission factor was calculated in accordance with AP-40, Section 4, Equation 5.

vi. coke pile load-out

Open (partial enclosure):

Multiply the maximum tons of coke handled per year times the 0.00129 pound/ton emission factor times 0.30 assuming a 70% control efficiency for partial enclosure during load-out, and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Open (uncontrolled)

Multiply the maximum tons of coke handled per year for the emergency coke pile (250,000 tons) times the 0.00129 pound/ton particulate emission factor and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95.



b. Emission Limitation:

There shall be no visible emissions except for 3 minutes in any hour for Batteries A & B and one minute in any hour for Batteries C & D and the Emergency coke pile(s).

Applicable Compliance Method:

Compliance with the visible emission limitations for the storage piles identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

c. Emission Limitation:

Fugitive PM<sub>10</sub> emissions shall not exceed 3.78 tons per year.

Applicable Compliance Method:

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

i. coal pile load-in

Open:

Multiply the maximum tons of coal handled per year times the 0.0005 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the stacking conveyor, and divide by 2,000 pounds per ton. The PM<sub>10</sub> emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Multiply the maximum tons of coal handled per year times the 0.0005 pound/ton particulate emission factor times 2 enclosed transfer points times 0.05 assuming a 95% control efficiency for the enclosure and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Domed

Multiply the maximum tons of coal handled per year times the 0.0005 pound/ton emission factor times 0.05, assuming a 95% control efficiency for the stacking tube, and divide by 2,000 pounds per ton. The PM<sub>10</sub> emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.



ii. coal pile wind erosion

Open:

Multiply the maximum area of the coal storage pile, in acres, times 366, the maximum number of days per year, times the 3.99 pound/day/acre emission factor times the 0.50 assuming a 50% control efficiency for the water sprays and divide by 2,000 pounds per ton. The  $PM_{10}$  emission factor was calculated in accordance with AP-40, Section 4, Equation 5. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 1/80.

Domed:

Multiply the maximum area of the coal storage pile, in acres, times the 366, the maximum number of days per year, times the 3.99 pound/day/acre emission factor times the 0.05 assuming a 95% control efficiency for the water sprays and divide by 2,000 pounds per ton. The particulate emission factor was calculated in accordance with AP-40, Section 4, Equation 5. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 1/80.

iii. coal pile load-out

Open:

Multiply the maximum tons of coal handled per year times the 0.0005 pound/ton emission factor times 0.05 assuming a 95% control efficiency for underpile conveyor, and divide by 2,000 pounds per ton. The  $PM_{10}$  emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Domed:

Multiply the maximum tons of coal handled per year times the 0.0005 pound/ton emission factor times 0.05 assuming a 95% control efficiency for underpile conveyor, and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

iv. coke pile load-in

Open (partial enclosure):

Multiply the maximum tons of coke handled per year times the 0.00061 pound/ton particulate emission factor times 0.30 assuming a 70% control efficiency for partial enclosure and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section



13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Open (uncontrolled)

Multiply the maximum tons of coke handled per year for the emergency coke pile (250,000 tons) times the 0.00061 pound/ton particulate emission factor and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95.

- v. coke pile wind erosion

Open

Multiply the maximum area of the coke storage pile(s), in acres, times the 366, the maximum number of days per year, times the 0.87 pound/day/acre emission factor and divide by 2,000 pounds per ton. The particulate emission factor was calculated in accordance with AP-40, Section 4, Equation 5.

- vi. coke pile load-out

Open (partial enclosure)

Multiply the maximum tons of coke handled per year times the 0.00061 pound/ton emission factor times 0.30 assuming a 70% control efficiency for partial enclosure, and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

Open (uncontrolled)

Multiply the maximum tons of coke handled per year for the emergency coke pile (250,000 tons) times the 0.00061 pound/ton particulate emission factor and divide by 2,000 pounds per ton. The particulate emission factor calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) and Table 13.2.4-1, dated 1/95.

- g) Miscellaneous Requirements

- (1) None.



**2. F004, Coke and breeze handling and processing**

**Operations, Property and/or Equipment Description:**

Coke and breeze handling and processing;

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Emissions of PM/PM<sub>10</sub> from the crushing/screening baghouse shall not exceed 3.09 pounds per hour.</p> <p>Fugitive particulate emissions (PE) from this source shall not exceed 4.88 tons per year.</p> <p>Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.</p> <p>The requirements of this rule also include compliance with these requirements of 40 CFR Part 52.21, OAC rule 3745-17-07 and 3745-31-10 through 20.</p>
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	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).
d.	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	Particulate emissions from the crushing/screening baghouse shall not exceed 0.008 grains per dry standard cubic foot of exhaust gases.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Particulate emissions from the crushing/screening baghouse shall not exceed 13.53 tons per year PM/PM<sub>10</sub> as a rolling, 12-month summation.</p> <p>Fugitive particulate matter emissions with a diameter of 10 microns and less (PM<sub>10</sub>) shall not exceed 2.30 tons per year, as a rolling, 12-month summation.</p>

(2) Additional Terms and Conditions

- a. The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

coke loading of railcars and trucks  
 coke conveying via belt conveyor  
 coke transfer points (belt conveyor to belt conveyor and crusher to belt conveyor)  
 coke unloading of trucks

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

material handling operation(s) control measure(s)

coke loading of railcars	partial enclosure
coke conveying via belt conveyors (belts below grade uncovered)	partial enclosure
coke transfer points (belt conveyor to belt conveyor and crusher to belt conveyor)	partial enclosure

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

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



the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that the use of the control measure(s) is unnecessary.

d. Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements OAC rule 3745-31-05.

c) Operational Restrictions

(1) The pressure drop across the coke crushing/screening baghouse shall be maintained within the range of 3 to 12 inches of water, while the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the coke crushing/screening baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the coke crushing/screening baghouse on a once per shift basis.

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

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
coke loading of railcars and trucks	daily
coke conveying via belt conveyors	daily
coke transfer points (belt conveyor to belt conveyor and crusher to belt conveyor)	daily
coke unloading of trucks	daily

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

(4) The permittee may, upon receipt of written approval from the Portsmouth Local Air Agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

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

- a. the date and reason any required inspection was not performed;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);



- c. the dates the control measure(s) was (were) implemented; and,
- d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in (5).d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the crushing/screening baghouse did not comply with the allowable range specified above.
- (2) The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency; and,
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
- (3) These deviation (excursion) reports are due by the dates described in the Standard Terms and Conditions of this permit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
Emissions of PM/PM<sub>10</sub> from the crushing/screening baghouse shall not exceed 3.09 pounds per hour.  
  
Applicable Compliance Method:  
  
If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(10).  
  
Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.
  - b. Emission Limitation:  
  
Fugitive particulate emissions (PE) from this source shall not exceed 4.88 tons per year.



Applicable Compliance Method:

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

i. enclosed coke transfer points

Multiply the maximum tons of coke handled per year times 2, the number of enclosed transfer points that handle 100% of the total throughput, times the 0.00129 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the enclosures, and divide by 2,000 pounds per ton.

Multiply the maximum tons of coke handled per year times 0.5, for transfer points that handle 50% of the total throughput, times 2, the number of enclosed transfer points, times the 0.00129 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the enclosures, and divide by 2,000 pounds per ton.

The particulate emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1), dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

ii. uncontrolled coke transfer points

Multiply the maximum tons of coke handled per year times 2, the number of uncontrolled transfer points that handle 100% of the total throughput, times the 0.00129 pound/ton emission factor, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1), dated 1/95.

Multiply the maximum tons of coke handled per year times 4, the number of uncontrolled transfer points that handle 50% of the total throughput, times the 0.00129 pound/ton emission factor, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42 5<sup>th</sup> Edition, Section 13.2.4, Equation (1), dated 1/95.

Multiply the maximum tons of coke handled per year times 4, the number of uncontrolled transfer points that handle the emergency coke pile (250,000 tons total throughput, times the 0.00129 pound/ton emission factor, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1), dated 1/95.

iii. coke load-out

Multiply the maximum tons of coke handled per year times the 0.00129 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the partial enclosure, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1), dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.



iv. coke breeze silo / partially enclosed bunker

Multiply the maximum tons of coke breeze handled per year times 2, the number of transfer points (load-out and load-in), times the 0.00129 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the enclosure, and divide by 2,000 pounds per ton. The particulate emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1), dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80

c. Emission limitation:

Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

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

d. Emission Limitation:

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

Applicable Compliance Method:

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

e. Emission Limitation:

Particulate emissions from the crushing/screening baghouse shall not exceed 0.008 grains per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

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

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

f. Emission Limitation:

Particulate emissions from the crushing/screening baghouse shall not exceed 13.53 TPY PM/PM<sub>10</sub> as a rolling, 12-month summation.



Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be calculated by multiplying the PM/PM<sub>10</sub> emission factor, in pounds/ton, times the maximum throughput rate of coke, in tons/hour, times the hours of operation, in hours/month, divided by 2,000 pounds/ton. The PM/PM<sub>10</sub> emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

g. Emission Limitation:

Fugitive PM<sub>10</sub> shall not exceed 2.30 tons per year, as a rolling, 12-month summation.

Applicable Compliance Method:

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

i. enclosed coke transfer points

Multiply the maximum tons of coke handled per month times 2, the number of enclosed transfer points that handle 100% of the total throughput, times the 0.00061 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the enclosures, and divide by 2,000 pounds per ton.

Multiply the maximum tons of coke handled per month times 0.5, for transfer points that handle 50% of the total throughput, times 2, the number of enclosed transfer points, times the 0.00061 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the enclosures, and divide by 2,000 pounds per ton.

The PM<sub>10</sub> emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1), dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

ii. uncontrolled coke transfer points

Multiply the maximum tons of coke handled per month times 2, the number of uncontrolled transfer points that handle 100% of the total throughput, times the 0.00061 pound/ton emission factor, and divide by 2,000 pounds per ton. The PM<sub>10</sub> emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1), dated 1/95.

Multiply the maximum tons of coke handled per month times 4, the number of uncontrolled transfer points that handle 50% of the total throughput, times the 0.00061 pound/ton emission factor, and divide by



2,000 pounds per ton. The  $PM_{10}$  emission factor was calculated from AP-42 5<sup>th</sup> Edition, Section 13.2.4, Equation (1), dated 1/95.

Multiply the maximum tons of coke handled per month times 4 , the number of uncontrolled transfer points that handle the emergency coke pile (250,000 tons total throughput, times the 0.00061 pound/ton emission factor, and divide by 2,000 pounds per ton. The  $PM_{10}$  emission factor was calculated from AP-42 5<sup>th</sup> Edition, Section 13.2.4, Equation (1), dated 1/95.

iii. coke load-out

Multiply the maximum tons of coke handled per month times the 0.00061 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the partial enclosure, and divide by 2,000 pounds per ton. The  $PM_{10}$  emission factor was calculated from AP-42 5<sup>th</sup> Edition, Section 13.2.4, Equation (1), dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

iv. coke breeze silo/partially enclosed bunker

Multiply the maximum tons of coke breeze handled per month times 2, the number of transfer points (load-out and load-in), times the 0.00061 pound/ton emission factor times 0.30, assuming a 70% control efficiency for the enclosure, and divide by 2,000 pounds per ton. The  $PM_{10}$  emission factor was calculated from AP-42 5<sup>th</sup> Edition, Section 13.2.4, Equation (1), dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

g) Miscellaneous Requirements

(1) None.



**3. P901, Waste Gas from Coking, Charging, & Pushing (AB Battery)**

**Operations, Property and/or Equipment Description:**

Phase I: 60 oven nonrecovery coke battery (A battery) and 40 oven nonrecovery coke battery (B battery) with heat recovery steam generators and gas sparging.

Administrative modification to revise the P901 waste gas baghouse pressure drop range, to revise the individual HRSG maintenance limit of 192 hours per year to a combined HRSG maintenance limit of 1,920 hours per year for all 10 HRSGs which includes revising the tons per year emission limitation to reflect the combined emissions with no increase in annual emissions, to allow the waste gas stack pound per hour SO<sub>2</sub> emission limit to not apply during lime spray dryer maintenance and to revise the daily coal charge limit to be based on a 7-day rolling average.

- 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
	<i>waste gas from coking process with a lime spray dryer, baghouse, and staged combustion</i>	
a.	OAC rule 3745-31-05(A)(3)	<p>Lead emissions shall not exceed 0.060 pound per hour from the waste gas stack.</p> <p>Hazardous Air Pollutant (HAP) (excluding HCl) emissions shall not exceed 0.0057pound/ton coal from the waste gas stack.</p> <p>Lead emissions shall not exceed 0.30 pound per hour from a single heat recovery steam generator (HRSG) by-pass vent stack.</p> <p>HAP emissions shall not exceed 0.031pound/ton coal from a single HRSG by-pass vent stack.</p> <p>See b)(2)i.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Hydrogen Chloride (HCl) emissions shall not exceed 0.10 pound HCl per ton coal from the waste gas stack.</p> <p>HCl emissions shall not exceed 12.06 pounds per hour and 44.02 tons per year from the waste gas stack.</p> <p>HCl emissions shall not exceed 2.01 pounds HCl per ton coal from a single HRSG by-pass vent stack.</p> <p>HCl emissions shall not exceed 48.24 pounds per hour from a single HRSG by-pass vent stack.</p> <p>HCl emissions shall not exceed 38.59 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.</p> <p>Visible particulate emissions from the waste gas exhaust stack(s) shall not exceed 10% opacity as a 6-minute average.</p> <p>Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.</p> <p>No visible emissions shall be permitted from the common battery tunnel or its associated piping.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through 20.</p>
b.	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	<p>Filterable Particulate Matter emissions less than 10 microns in diameter (PM<sub>10</sub>) shall not exceed 17.14 pounds per hour from the waste gas stack.</p> <p>PM/PM<sub>10</sub> emissions shall not exceed 75.09 tons per year as a rolling, 12-month summation from the waste gas stack.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed 192.0 pounds per hour as a 3 hour block average from the waste gas stack except during maintenance of the lime spray dryer and ancillary equipment (e.g. atomizer replacements).</p> <p>See b)(2)m.</p> <p>SO<sub>2</sub> emissions shall not exceed 700.80 tons per year as a rolling, 12-month summation from the waste gas stack</p> <p>Nitrogen Oxides (NO<sub>x</sub>) emissions shall not exceed 120.0 pounds per hour from the waste gas stack.</p> <p>NO<sub>x</sub> emissions shall not exceed 438.0 tons per year as a rolling, 12-month summation from the waste gas stack.</p> <p>Carbon Monoxide (CO) emissions shall not exceed 21.81 pounds per hour from the waste gas stack.</p> <p>CO emissions shall not exceed 95.54 tons per year as a rolling, 12-month summation from the waste gas stack.</p> <p>Volatile Organic Compound (VOC) emissions shall not exceed 4.67 pounds per hour from the waste gas stack.</p> <p>VOC emissions shall not exceed 20.47 tons per year as a rolling, 12-month summation from waste gas stack.</p> <p>PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 35.57 pounds per hour from a single HRSG by-pass vent stack.</p> <p>PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 34.15 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>SO<sub>2</sub> emissions shall not exceed 480.0 pounds per hour, as a 3 hour block average, from a single HRSG by-pass vent stack.</p> <p>SO<sub>2</sub> emissions shall not exceed 384.0 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.</p> <p>NO<sub>x</sub> emissions shall not exceed 24.0 pounds per hour from a single HRSG by-pass vent stack.</p> <p>NO<sub>x</sub> emissions shall not exceed 19.20 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.</p> <p>CO emissions shall not exceed 4.36 pounds per hour from a single HRSG by-pass vent stack.</p> <p>CO emissions shall not exceed 4.19 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.</p> <p>VOC emissions shall not exceed 0.93 pound per hour from a single HRSG by-pass vent stack.</p> <p>VOC emissions shall not exceed 0.90 ton per year from all HRSG by-pass vent stacks combined for P901 and P902.</p> <p>Particulate emissions from the lime spray dryer baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases.</p> <p>1.6 pounds SO<sub>2</sub>/ton coal from the waste gas stack.</p> <p>1 pound NO<sub>x</sub>/ton coal from the waste gas stack.</p> <p>20 ppm CO from the waste gas stack.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		10 ppm VOC from the waste gas stack.  See b)(2)a. below.
c.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rules is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	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).
e.	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).
f.	OAC rule 3745-31-05(D)	See b)(2)c. below.
g.	40 CFR Part 63, Subpart L	See b)(2)d., b)(2)e. and b)(2)f. below.
h.	OAC rule 3745-114-01	See B.3.
<i>charging operations with baghouse with traveling hood</i>		
i.	OAC rule 3745-31-05(A)(3)	<p>Visible particulate emissions from the charging baghouse stack shall not exceed 10% opacity as a 6-minute average.</p> <p>Visible particulate emissions of fugitive dust from charging operations shall not exceed 20% opacity, as an average of five consecutive charges.</p> <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and 3745-31-10 through 20.</p>
j.	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	<p>Filterable PM/PM<sub>10</sub> emissions shall not exceed 0.0081 pound per ton of dry coal charged from the charging baghouse.</p> <p>Filterable PM/PM<sub>10</sub> emissions shall not exceed 3.3 tons per year as a rolling, 12-month summation from the charging baghouse.</p> <p>Fugitive PM emissions shall not exceed 3.89 pounds per hour from charging.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Fugitive PM shall not exceed 3.55 tons per year from charging.</p> <p>Fugitive PM<sub>10</sub> emissions shall not exceed 1.17 pounds per hour from charging.</p> <p>Fugitive PM<sub>10</sub> emissions shall not exceed 1.06 tons per year as a rolling, 12-month summation from charging.</p> <p>SO<sub>2</sub> emissions shall not exceed 0.14 pound per hour from the charging baghouse.</p> <p>SO<sub>2</sub> emissions shall not exceed 0.13 ton per year as a rolling, 12-month summation from the charging baghouse.</p> <p>CO emissions shall not exceed 1.34 pounds per hour from the charging baghouse.</p> <p>CO emissions shall not exceed 1.23 tons per year as a rolling, 12-month summation from the charging baghouse.</p> <p>VOC emissions shall not exceed 0.96 pound per hour from the charging baghouse.</p> <p>VOC emissions shall not exceed 0.88 ton per year as a rolling, 12-month summation from the charging baghouse.</p> <p>See b)(2)a. below.</p> <p>0.0003 pound SO<sub>2</sub>/ton coal from the charging baghouse.</p> <p>0.0028 pound CO/ton coal from the charging baghouse.</p> <p>0.002 pound VOC/ton coal from the charging baghouse.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
k.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
l.	OAC rule 3745-17-11(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).
m.	OAC rule 3745-31-05 (D)	See b)(2)c. below.
n.	40 CFR Part 63, Subpart L	See b)(2)d., b)(2)e. and b)(2)f. below.
o.	OAC rule 3745-114-01	See Section B.3.
	<i>pushing operations with flat push hot car (FPHC) vented to multiclone dust collector</i>	
p.	OAC rule 3745-31-05(A)(3)	<p>Visible particulate emissions of fugitive dust from the pushing operations shall not exceed 20% opacity as a 3-minute average.</p> <p>See b)(2)b. below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and 3745-31-10 through 20.</p>
q.	OAC rule 3745-31-10 through 20	<p>Filterable PM/PM<sub>10</sub> emissions shall not exceed 13.72 pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>Filterable PM/PM<sub>10</sub> emissions shall not exceed 12.53 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>SO<sub>2</sub> emissions shall not exceed 24 pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>SO<sub>2</sub> emissions shall not exceed 21.9 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>NOx emissions shall not exceed 7.68</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>NOx emissions shall not exceed 7.01 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>CO emissions shall not exceed 36.96 pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>CO emissions shall not exceed 33.73 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>VOC emissions shall not exceed 96.0 pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>VOC emissions shall not exceed 87.6 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>Filterable Particulate emissions from the flat push hot car vented to multiclone dust collector exhaust shall not exceed 0.04 pound PM<sub>10</sub>/ton of coke.</p> <p>See b)(2)a. below.</p> <p>0.05 pound SO<sub>2</sub>/ton coal from the flat push hot car vented to multiclone dust collector.</p> <p>0.016 pound NOx/ton coal from the flat push hot car vented to multiclone dust collector.</p> <p>0.077 pound CO/ton coal from the flat push hot car vented to multiclone dust collector.</p> <p>0.2 pound VOC/ton coal from the flat push hot car vented to multiclone dust</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		collector.
r.	40 CFR Part 63, Subpart CCCCC	See b)(2)h. below.
s.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the flat push hot car vented to multiclone dust collector stacks shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
t.	OAC rule 3745-17-11(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).
u.	OAC rule 3745-31-05(D)	See b)(2)c. below.
v.	OAC rule 3745-114-01	See B.3.

(2) Additional Terms and Conditions

- a. OAC rule 3745-31-15 requires the following best available control technologies:
  - i. The waste gas from coking shall be processed by the use of a lime spray dryer with a manufacturer's design control efficiency of 92% for SO<sub>2</sub> control except during maintenance of the lime spray dryer and ancillary equipment (e.g. atomizer replacements), staged combustion for NO<sub>x</sub> control, combustion optimization for CO and VOC control, and a baghouse for PM control.
  - ii. The pushing operations shall employ a mobile hood with a multiclone dust collector for PM control and work practices for CO and VOC control.
  - iii. The charging operations shall employ a baghouse with a traveling hood for PM control.
- b. The emissions control system for the pushing operation(s) shall maintain a minimum capture efficiency of 98%.
- c. Lead emissions shall not exceed 0.41ton per year as a rolling, 12-month summation for emissions units P901, P902, P001, and P002 combined.
- d. [40 CFR 63.300(e)]

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.



e. [40 CFR 63.303(b)(1)]

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.

f. [40 CFR 63.303(b)(2)]

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.

g. [40 CFR 63.7300(a)]

As required by §63.6(e)(1)(i), the permittee must always operate and maintain your 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.

h. [40 CFR 63.7300(c)(1) through (3)]

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.

i. Hazardous Air Pollutant (HAPs) emissions (excluding HCl) shall not exceed 6.43 tons per year for emissions units P001, P002, P901 and P902, combined.

j. When charging coal with 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<sub>2</sub> emissions to comply with the pound per hour and rolling 12-month SO<sub>2</sub> emission limitations; or
  - ii. reduce production as needed to comply with the pound per hour and rolling 12-month SO<sub>2</sub> emission limitations.
- k. The permittee shall maintain a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system, designed to ensure continuous valid and representative readings of SO<sub>2</sub> emissions 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<sub>2</sub> 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 60.13; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at frequencies required per 40 CFR Part 60.13.

- l. The continuous emission monitoring system consists of all 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.
- m. The pound per hour SO<sub>2</sub> emission limitation and minimum 92% SO<sub>2</sub> control efficiency requirement do not apply during maintenance of the lime spray dryer (e.g. atomizer replacement). This exemption may be used for no more than one 3-hr block average period per week.
- n. The hourly and annual emission limits for PM/PM<sub>10</sub> (filterable and condensable) established for the HRSG by-pass vent stacks were developed using testing data from a similar facility. The permittee reserves the right to request an administrative permit modification to revise these permit limits based on site-specific emissions data obtained during any required performance test, if necessary.

c) Operational Restrictions

- (1) The pressure drop across the waste gas exhaust baghouse shall be maintained within the range of 3 to 15 inches of water while the emissions unit is in operation.
- (2) The pressure drop across each charging baghouse shall be maintained within the range of 3 to 12 inches of water while the emissions unit is in operation.
- (3) The permittee shall operate and maintain common duct temperatures at a minimum of 1400 °F as established in the Work Practice Plan to ensure emission limits for the waste gas exhaust are not exceeded.



Gas sparging is allowed for natural gas usage up to 100 MMBTU/hr to be introduced in the common tunnel.

- (4) The maximum hourly charging/pushing rate for this emissions unit shall not exceed 10 ovens per hour.
- (5) The maximum daily wet coal usage rate for this emissions unit shall not exceed 2,400 wet tons coal, based on a 7-day rolling average.
- (6) The maximum annual wet coal usage rate for this emission unit shall not exceed 876,000 tons, based upon a rolling, 12-month summation of the wet coal usage rates. This emissions unit is an existing emissions unit and therefore has existing records and does not need to be restricted on a monthly basis.
- (7) [40 CFR 63.310]

At all times including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the coke oven battery and its pollution control equipment required under 40 CFR Part 63, Subpart L, in a manner consistent with good air pollution control practices for minimizing emissions to the levels required by any applicable performance standards under 40 CFR Part 63, Subpart L. Failure to adhere to the requirements of this paragraph shall not constitute a separate violation if a violation of an applicable performance or work practice standard has also occurred.

- (8) Waste gas emissions shall not be vented to the HRSG bypass vent stacks for HRSG maintenance or ancillary equipment (e.g. vent stack lid) maintenance for more than 1,920 hours per rolling 12-month period for vent stacks VS1 thru VS10 (P901 and P902 combined). There shall be not more than one HRSG bypass vent stack at either P901 or P902 in use at any time.
- (9) [40 CFR 63.7290(b)(3)]

For each capture system applied to pushing emissions, the permittee shall:

- a. 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.; or
- b. For each capture system that uses an electric motor to drive the fan, the permittee shall maintain the daily average fan motor amperes at or above the minimum level established during the initial performance test; and
- c. For each capture system that does not use a fan driven by an electric motor, the permittee shall maintain the daily average static pressure at the inlet to the control device at on equal or greater vacuum than the level established during the initial performance test or maintain the daily average fan revolutions per minute (RPM) at or above the minimum level established during the initial performance test.



- (10) [40 CFR 63.7290(b)(4)]

For each multiclone, the permittee shall maintain the daily average pressure drop at or below the maximum level established during the initial or subsequent performance test.

- (11) [40 CFR 63.7293(a)(1)]

The permittee shall visually inspect each oven prior to pushing by opening the door damper and observing the bed of coke.

- (12) [40 CFR 63.7293(a)(2)]

The permittee shall not push the oven unless the visual inspection indicates that there is no smoke in the open space above the coke bed and that there is an unobstructed view of the door on the opposite side of the oven.

- (13) 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.

- (14) 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.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the waste gas baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual (s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.
- (2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across each charging baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each baghouse on a once per shift basis.
- (3) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the pushing multiclone dust collector while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).



The hood and duct work collecting pushing emissions shall be visually examined monthly for areas potentially needing repair. When an inspection identifies an area needing repair, the permittee shall maintain records of the date the inspection, the dates of each attempt to repair, the repair methods of each attempt to repair, and the date of successful repair.

- (4) The permittee shall maintain daily records of the coal usage rate, in wet tons, in this emissions unit.
- (5) The permittee shall maintain hourly records of the charging/pushing rate, in number of charges/pushes per hour, for this emissions unit.
- (6) The permittee shall maintain monthly records of the following information:
  - a. the wet coal usage rate for each month; and,
  - b. the rolling, 12-month summation of the wet coal usage rates.
- (7) The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to:

- a. emissions of SO<sub>2</sub> in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. emissions of SO<sub>2</sub> in pounds per hour and in 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<sub>2</sub> monitoring system, and control equipment;
- g. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO<sub>2</sub> 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<sub>2</sub> 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).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (8) 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<sub>2</sub> 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.
- (9) The permittee shall monitor and record the temperature of the common battery tunnel on a once per shift basis.
- (10) The permittee shall monitor and record, once per day for each day of operation, the pressure in the common battery tunnel to ensure that the ovens are operated under a negative pressure.
- (11) [40 CFR 63.306(a)]

The permittee shall prepare and submit to the Administrator a written emission control work practice plan for each coke oven battery, in accordance with 40 CFR Part 63, Subpart L, Section 63.306, within 45 days of startup of the first coke oven battery facility.

The plan shall be designed to achieve compliance with visible emission limitations for coke oven doors, and charging operations under this subpart or, for a coke oven battery not subject to visible emission limitations under this subpart, other federally enforceable visible emission limitations for these emission points.

- a. The work practice plan must address each of the topics specified in paragraph (b) of 40 CFR 63.306 in sufficient detail and with sufficient specificity to allow the Administrator to evaluate the plan for completeness and enforceability.
- b. The Administrator may require revisions to the initial plan only where the Administrator finds either that the plan does not address each subject area listed in paragraph (b) of 40 CFR 63.306 for each emission point subject to a visible emission standard under this subpart, or that the plan is unenforceable because it contains requirements that are unclear.
- c. During any period of time that an owner or operator is required to implement the provisions of a plan for a particular emission point, the failure to implement one or more obligations under the plan and/or any recordkeeping requirement(s) under §63.311(f)(4) for the emission point during a particular day is a single violation.



(12) [40 CFR 63.306(b)]

Plan components. The permittee shall organize the work practice plan to indicate clearly which parts of the plan pertain to each emission point subject to visible emission standards under this subpart. Each of the following provisions, at a minimum, shall be addressed in the plan:

- a. An initial and refresher training program for all coke plant operating personnel with responsibilities that impact emissions, including contractors, in job requirements related to emission control and the requirements of this subpart, including work practice requirements. Contractors with responsibilities that impact emission control may be trained by the owner or operator or by qualified contractor personnel; however, the owner or operator shall ensure that the contractor training program complies with the requirements of 40 CFR 63.306. The training program in the plan must include:
  - i. A list, by job title, of all personnel that are required to be trained and the emission point(s) associated with each job title;
  - ii. An outline of the subjects to be covered in the initial and refresher training for each group of personnel;
  - iii. A description of the training method(s) that will be used (e.g., lecture, video tape);
  - iv. A statement of the duration of initial training and the duration and frequency of refresher training;
  - v. A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion of the initial and refresher training; and
  - vi. A description of the procedure to be used to document performance of plan requirements pertaining to daily operation of the coke oven battery and its emission control equipment, including a copy of the form to be used, if applicable, as required under the plan provisions implementing paragraph (b)(7) of 40 CFR 63.306.
- b. Procedures for controlling emissions from nonrecovery coke oven batteries including:
  - i. Procedures for charging coal into the oven, including any special procedures for minimizing air infiltration during charging, maximizing the draft on the oven, and for replacing the door promptly after charging;
  - ii. If applicable, procedures for the capture and control of charging emissions;



- iii. Procedures for cleaning coke from the door sill area for both sides of the battery after completing the pushing operation and before replacing the coke oven door;
  - iv. Procedures for cleaning coal from the door sill area after charging and before replacing the push side door;
  - v. Procedures for filling gaps around the door perimeter with sealant material, if applicable; and
  - vi. Procedures for detecting and controlling emissions from smoldering coal.
- c. Procedures for maintaining, for each emission point subject to visible emission limitations under this subpart, a daily record of the performance of plan requirements pertaining to the daily operation of the coke oven battery and its emission control equipment, including:
- i. Procedures for recording the performance of such plan requirements; and
  - ii. Procedures for certifying the accuracy of such records by the owner or operator.
- d. Any additional work practices or requirements specified by the Administrator according to paragraph (d) of 40 CFR 63.306.

(13) [40 CFR 63.306(c)]

Implementation of work practice plans. On and after November 15, 1993, the owner or operator of a coke oven battery shall implement the provisions of the coke oven emission control work practice plan according to the following requirements:

- a. (1) The owner or operator of a coke oven battery subject to visible emission limitations under this subpart on and after November 15, 1993, shall:
- (i) Implement the provisions of the work practice plan pertaining to a particular emission point following the second independent exceedance of the visible emission limitation for the emission point in any consecutive 6-month period, by no later than 3 days after receipt of written notification of the second such exceedance from the certified observer. For the purpose of this paragraph (c)(1)(i) of 40 CFR 63.306, the second exceedance is "independent" if either of the following criteria is met:
    - (A) The second exceedance occurs 30 days or more after the first exceedance;
    - (B) In the case of coke oven doors, topside port lids, and offtake systems, the 29-run average, calculated by excluding the highest value in the 30-day period, exceeds the value of the applicable emission limitation; or



- (C) In the case of charging emissions, the 29-day logarithmic average, calculated in accordance with Method 303 in appendix A to this part by excluding the valid daily set of observations in the 30-day period that had the highest arithmetic average, exceeds the value of the applicable emission limitation
  - (ii) Continue to implement such plan provisions until the visible emission limitation for the emission point is achieved for 90 consecutive days if work practice requirements are implemented pursuant to paragraph (c)(1)(i) of this section. After the visible emission limitation for a particular emission point is achieved for 90 consecutive days, any exceedances prior to the beginning of the 90 days are not included in making a determination under paragraph (c)(1)(i) of 40 CFR 63.306.
  - b. The owner or operator of a coke oven battery not subject to visible emission limitations under this subpart until December 31, 1995, shall:
    - (i) Implement the provisions of the work practice plan pertaining to a particular emission point following the second exceedance in any consecutive 6-month period of a federally enforceable emission limitation for that emission point for coke oven doors, or charging operations by no later than 3 days after receipt of written notification from the applicable enforcement agency; and
    - (ii) Continue to implement such plan provisions for 90 consecutive days after the most recent written notification from the enforcement agency of an exceedance of the visible emission limitation.
- (14) [40 CFR 63.306(d)]

Revisions to plan. Revisions to the work practice emission control plan will be governed by the provisions in this paragraph (d) and in paragraph (a)(2) of 40 CFR 63.306.

- a. The Administrator may request the owner or operator to review and revise as needed the work practice emission control plan for a particular emission point if there are 2 exceedances of the applicable visible emission limitation in the 6-month period that starts 30 days after the owner or operator is required to implement work practices under paragraph (c) of 40 CFR 63.306. In the case of a coke oven battery subject to visual emission limitations under this subpart, the second exceedance must be independent under the criteria in paragraph (c)(1)(i) of 40 CFR 63.306.
- b. The Administrator may not request the owner or operator to review and revise the plan more than twice in any 12 consecutive month period for any particular emission point unless the Administrator disapproves the plan according to the provisions in paragraph (d)(6) of 40 CFR 63.306.
- c. If the certified observer calculates that a second exceedance (or, if applicable, a second independent exceedance) has occurred, the certified observer shall notify the owner or operator. No later than 10 days after receipt of such a notification,



the owner or operator shall notify the Administrator of any finding of whether work practices are related to the cause or the solution of the problem. This notification is subject to review by the Administrator according to the provisions in paragraph (d)(6) of 40 CFR 63.306.

- d. The owner or operator shall submit a revised work practice plan within 60 days of notification from the Administrator under paragraph (d)(1) of 40 CFR 63.306, unless the Administrator grants an extension of time to submit the revised plan.
- e. If the Administrator requires a plan revision, the Administrator may require the plan to address a subject area or areas in addition to those in paragraph (b) of this section, if the Administrator determines that without plan coverage of such an additional subject area, there is a reasonable probability of further exceedances of the visible emission limitation for the emission point for which a plan revision is required.
- f. The Administrator may disapprove a plan revision required under paragraph (d) of 40 CFR 63.306 if the Administrator determines that the revised plan is inadequate to prevent exceedances of the visible emission limitation under this subpart for the emission point for which a plan revision is required or, in the case of a battery not subject to visual emission limitations under this subpart, other federally enforceable emission limitations for such emission point. The Administrator may also disapprove the finding that may be submitted pursuant to paragraph (d)(3) of 40 CFR 63.306 if the Administrator determines that a revised plan is needed to prevent exceedances of the applicable visible emission limitations.

(15) [40 CFR 63.310(b)]

The permittee of a coke oven battery shall develop and implement a written startup, shutdown, and malfunction plan that describes procedures for operating the battery, including associated air pollution control equipment, during a period of a startup, shutdown, or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable.

(16) [40 CFR 63.310(g)]

To satisfy the requirements of 40 CFR Part 63, Section 63.310 to develop a startup, shutdown, and malfunction plan, the permittee may use the standard operating procedures manual for the battery, provided the manual meets all the requirements for 40 CFR Part 63, Section 63.310 and is made available for inspection at reasonable times when requested by the Administrator.

(17) [40 CFR 63.310(h)]

The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:



- a. does not address a startup, shutdown, or malfunction event that has occurred
- b. fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions; or
- c. does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

(18) [40 CFR 63.310(i)]

If the permittee demonstrates to the satisfaction of the Administrator that a startup, shutdown, or malfunction has occurred, then an observation occurring during such startup, shutdown, or malfunction shall not:

- a. constitute a violation of relevant requirements of 40 CFR Part 63, Subpart L;
- b. be used in any compliance determination under 40 CFR Part 63, Section 63.309; or
- c. be considered for purposes of 40 CFR Part 63, Section 63.306, until the Administrator determines that a startup, shutdown, or malfunction has not occurred, such observations may be used for purposes of 40 CFR Part 63, Section 63.306, regardless of whether the permittee further contests such determination. The permittee's receipt of written notification from the Administrator that a startup, shutdown, or malfunction has not occurred will serve, where applicable under 40 CFR Part 63, Subpart 63.306, as written notification from the certified observer that an exceedance has occurred.

(19) [40 CFR 63.311(f)]

The permittee shall maintain files of all required information in a permanent form suitable for inspection at an onsite location for at least 1 year and must thereafter be assessable within 3 working days to the Administrator for a period of at least five years from the date of the monitoring sample, measurement, report or application.

(20) [40 CFR 63.311(f)]

Copies of the work practice plan developed under 40 CFR Part 63, Section 63.306 and the startup, shutdown, and malfunction plan developed under 40 CFR Part 63, Section 63.310 shall be kept onsite at all times. The permittee shall maintain the following information:

- a. records of daily pressure monitoring, according to 40 CFR Part 63, Section 63.303(b)(1)(ii);
- b. records demonstrating the performance of work practice requirements according to 40 CFR Part 63, Section 63.306(b)(7);



- c. design characteristics of each emission control system for the capture and collection of charging emissions, as required by 40 CFR Part 63, Section 63.303(b)(2).

(21) [40 CFR 63.311(f)(3)]

A copy of the work practice plan required by 40 CFR Part 63, Section 63.306 and any revision to the plan;

(22) [40 CFR 63.311(g)(1)-(4)]

Records required to be maintained and reports required to be filed with the Administrator, with a copy to the Portsmouth Local Air Agency, under 40 CFR Part 63, Subpart L shall be made available in accordance with the requirements of this section by the permittee to the authorized collective bargaining representative of the employees at a coke oven battery, for inspection and copying.

- a. requests under this term and condition shall be submitted in writing, and shall identify the records or reports that are subject to the request with reasonable specificity;
- b. the permittee shall produce the reports for inspection and copying within a reasonable period of time, not to exceed 30 days. A reasonable fee may be charged for copying (except for the first copy of any document), which shall not exceed the copying fee charged by the Administrator under part 2 of the CFR, chapter 40;
- c. nothing in this term and condition shall require the production for inspection or copying of any portion of a document that contains trade secret or confidential business information that the Administrator would be prohibited from disclosing to the public under part 2 of the CFR, chapter 40; and;
- d. the inspection or copying of document under this term and condition shall not in any way affect any property right of the permittee in such document under the laws for the protection of intellectual property, including the copyright laws.

(23) [40 CFR 63.310(f)]

The permittee shall maintain a record of internal reports which form the basis of each malfunction notification in accordance with 40 CFR Part 63.310(d).

(24) 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.

(25) [40 CFR 7330(d)]

For each capture system applied to pushing emissions, the permittee must at all times monitor the volumetric flow rate according to the requirements in §63.7331(g) or the fan motor amperes according to the requirements in §63.7331(h), or the static pressure or the fan RPM according to the requirements in §63.7331(i).



(26) [40 CFR 63.7330(f)]

For each multiclone applied to pushing emissions, the permittee must monitor at all times the pressure drop using a CPSM according to the requirements in §63.7331(k).

(27) [40 CFR 63.7331(g)]

If the permittee elects the operating limit in §63.7290(b)(3) for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure the total volumetric flow rate at the inlet to the control device .

(28) [40 CFR 63.7331(h)]

If the permittee elects the operating limit in §63.7290(b)(3)(i) for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure the fan motor amperes .

(29) [40 CFR 63.7331(i)]

If the permittee elects the operating limit in §63.7290(b)(3)(ii) for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure static pressure at the inlet of the control device or the fan RPM.

(30) [40 CFR 63.7331(k)]

For each multiclone applied to pushing emissions, you must install, operate, and maintain CPMS to measure and record the pressure drop across each multiclone during each push according to the requirements in paragraphs (b) through (d) of 40 CFR 63.7331 except as specified in paragraphs (e)(1) through (3) of 40 CFR 63.7331.

(31) [40 CFR 63.7333(d)]

For each capture system applied to pushing emissions and subject to the operating limit in 40 CFR 63.7290(b)(3), you must demonstrate continuous compliance by meeting the requirements in paragraph (d)(1), (2), or (3) of 40 CFR 63.7333 as summarized in a. through c. below:

- a. If you elect the operating limit for volumetric flow rate in 40 CFR 63.7290(b)(3):
  - i. maintaining the daily average volumetric flow rate at the inlet of the control device at or above the minimum level established during the initial or subsequent performance test; and
  - ii. checking the volumetric flow rate at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.
- b. If you elect the operating limit for the fan motor amperes in 40 CFR 63.7290(b)(3)(i):



- i. maintaining the daily average fan motor amperes at or above the minimum level established during the initial or subsequent performance test; and
  - ii. checking the fan motor average at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.
- c. If you elect the operating limit for static pressure or fan RPM in 40 CFR 7290(b)(3)(ii):
- i. maintaining the daily average static pressure at the inlet to the control device at an equal or greater vacuum than established during the initial or subsequent performance test or the daily average fan RPM at or above the minimum level established during the initial or subsequent performance test; and
  - ii. checking the static pressure or fan RPM at least every 8 hours to verify the daily average static pressure at the inlet to the control device is at an equal or greater vacuum than established during the initial or subsequent performance test or the daily average fan RPM is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.

(32) [40 CFR 7333(h)]

For each multiclone applied to pushing emissions and subject to the operating limit in 40 CFR 7290(b)(4), you must demonstrate compliance by meeting the requirements in paragraphs (h)(1) through (3) of 40 CFR 63.7333 as summarized in section C.3.d)(32) a. and b below:

- a. maintaining the daily average pressure drop at a level at or below the level established during the initial or subsequent performance test; and
- b. operating and maintaining each CPMS according to 40 CFR 63.7331(k) and recording all information needed to document conformance with these requirements.

(33) [40 CFR 63.7342 (a)(1) through (3)]

The permittee must keep the records specified in paragraphs (a) through (c) below.

- a. a copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in §63.10(b)(2)(xiv);
- b. the records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction; and



- c. records of performance tests, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

(34) [40 CFR 63.7342 (d)]

The permittee must keep the records required in §§63.7333 through 63.7335 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies.

(35) [40 CFR 63.7343 (a) through (c)]

- a. The permittee must keep your records in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
- b. As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- c. You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

(36) 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 primary conveyor belt that feeds batteries A and B 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; D6722-01 Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Direct Combustion Analysis; D6721-01 Standard Test Method for Determination of Chlorine 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.

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

(38) All bypass vent stacks shall be equipped with sensors that detect when the bypass stacks are open, or partially opened, either due to relieving system pressure or manual opening of the bypass vent stacks by the operator. These sensors shall be instrumented



to the operator and an alarm sounded when there is stack gas flow to any of the by-pass vent stacks. The permittee shall record and maintain daily records for each bypass vent stack the time periods that there was flow through the bypass vent stack(s).

- (39) Ohio EPA reserves the right to require the permittee to install a continuous opacity monitoring system on the main stack if Method 9 readings indicate that visible emissions are at a level near the allowable visible emission limitation. If Ohio EPA determines that a continuous opacity monitoring system is needed to assure compliance with the visible emission limitation, the permittee shall install an opacity monitoring system on the main stack within 90 days of notification by Ohio EPA that an opacity monitoring system is required to be installed. Prior to installation of an opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.
  - (40) The permittee shall maintain monthly records of all the following information for all periods when waste gas emissions are vented to the HRSG bypass vent 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; and
    - d. the rolling, 12-month summation of the HRSG bypass vent stack usage rates per stack.
  - (41) The permittee shall observe each coke oven door after charging and record the oven number of any door from which visible emissions occur. Emissions from coal spilled during charging or from material trapped within the seal area of the door are not considered to be a door leak if the permittee demonstrates that the oven is under negative pressure, and that no emissions are visible from the top of the door or from the dampers on the door.
  - (42) Except as provided in (a) below, if a coke oven door leak is observed at any time during the coking cycle, the permittee shall take corrective action and stop the leak within 15 minutes from the time the leak is first observed. No additional leaks are allowed from doors on that oven for the remainder of that oven's coking cycle.
    - a. For no more than two times per battery in any semiannual reporting period, the permittee may take corrective action and stop the leak within 45 minutes (instead of 15 minutes) from the time the leak is first observed.
- e) Reporting Requirements
- (1) The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the waste gas baghouse did not comply with the allowable range specified above.



- (2) The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across either charging baghouse did not comply with the allowable range specified in above.
- (3) The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the pushing multiclone dust collector did not comply with the allowable range specified above.
- (4) The permittee shall submit semi-annual written reports which (a) list all inspections which identified an area of the hood and duct work needing repair, and (b) a description of the repairs completed.
- (5) The permittee shall submit deviation (excursion) reports which identify all exceedances of the daily wet coal usage rate limitation.
- (6) The permittee shall submit deviation (excursion) reports which identify all exceedances of the hourly charging/pushing rate limitation.
- (7) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month wet coal usage rate limitation.
- (8) These reports are due by the date described in Standard Terms and Conditions of the permit.
- (9) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO<sub>2</sub> 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<sub>2</sub> emissions in excess of any applicable limit specified in this permit, 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).
  - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
    - i. the facility name and address;
    - ii. the manufacturer and model number of the continuous SO<sub>2</sub> 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 the 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 exceedance during the calendar quarter, as specified above;
  - v. the total SO<sub>2</sub> 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<sub>2</sub> monitoring system while the emissions unit was in operation;
  - viii. results and dates of quarterly cylinder gas audits;
  - ix. unless previously submitted, results and dates 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<sub>2</sub> 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<sub>2</sub> monitoring system, emissions unit, and/or control equipment;
  - xii. the date, time, and duration of any downtime\*\* of the continuous SO<sub>2</sub> monitoring system and/or control equipment while the emissions unit was in operation; 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.

\*where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

\*\* each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit; SO<sub>2</sub> monitoring system downtime attributed to main stack bypass events shall not be counted against the facility for enforcement purposes but must be reported.

- (10) The permittee shall submit common battery tunnel temperature deviation (excursion) reports that identify all periods of during which the temperature in the common battery tunnel did not comply with the allowable range specified above. These reports shall include the time of the temperature deviation, the duration of the exceedance and the corrective action taken.



(11) The permittee shall submit deviation (excursion) reports which identify all exceedances of the 0.41ton per year Lead emissions limitation.

(12) [40 CFR 63.310(d)]

In order for the provisions of C.3.d)(18) to apply with respect to the observation (or set of observations) for a particular day, notification of a startup, shutdown, or a malfunction shall be made by the permittee;

- a. if practicable, to the certified observer if the observer is at the facility during the occurrence; or
- b. to the enforcement agency, in writing, within 24 hours of the occurrence first being documented by a company employee, and if the notification was not made, an explanation of why no such notification was made.

(13) [40 CFR 63.310(e)]

Within 14 days of the original notification made under term and condition e)(12) or after a startup or shutdown, the permittee shall submit a written report to the Administrator, with a copy to the Portsmouth Local Air Agency that:

- a. describes the times and circumstances of the startup, shutdown, or malfunction;
- b. describes actions taken that might be considered inconsistent with the startup, shutdown, or malfunction plan.

(14) [40 CFR 63.311(b)]

The permittee shall provide a written statement(s) to certify compliance to the Administrator, with a copy to the Portsmouth Local Air Agency, within 45 days of the applicable compliance date for the emission limitations or requirements in 40 CFR Part 63, Subpart L. The permittee shall include the following information in the initial compliance certification:

- a. statement, signed by the permittee, certifying that a written startup, shutdown, and malfunction plan has been prepared as required in 40 CFR Part 63, Section 63.310.

(15) [40 CFR 63.311(c)]

The permittee shall provide written notification(s) to the Administrator of:

- a. intention to construct a new coke oven battery (including reconstruction of an existing coke oven battery and construction of a greenfield coke oven battery), including the anticipated date of startup.

(16) [40 CFR 63.311(d)]

The permittee shall include the following information in the semi-annual compliance certification:



- a. certification, signed by the permittee, that a startup, shutdown, or malfunction event did not occur for the coke oven battery during the reporting period or that a startup, shutdown, event did occur and a report was submitted according to the requirements in 40 CFR Part 63, Section 63.310(e); and,
  - b. certification, signed by the permittee, that work practices were implemented if applicable under 40 CFR 63.306.
- (17) The permittee shall submit semi-annual written reports which identify the date, time, and duration of each waste gas by-pass event.
  - (18) The deviation (excursion) reports shall be submitted in accordance with Part 1 - Standard Terms and Conditions of this permit.
  - (19) The permittee shall submit to the Portsmouth Local Air Agency quarterly common battery tunnel negative pressure deviation (excursion) reports that identify all periods of time during which there was not a negative pressure across each common battery tunnel. 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.
  - (20) The permittee shall submit to the Portsmouth Local Air Agency quarterly deviation (excursion) reports that identify all periods during which visual inspections of the enclosed flat push hot car 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.
  - (21) The permittee shall submit to the Portsmouth Local Air Agency quarterly reports concerning the quality and quantity of the coal coked in this emissions unit. These reports shall include the following information for the emissions unit for each month 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.

- (22) The permittee shall submit to the Portsmouth Local Air Agency quarterly deviation (excursion) reports that identify all exceedances of the HRSG bypass vent stack usage limitations. 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.

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 0.060 pound per hour from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 12 or 29.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

b. Emission Limitation:

HAPs (excluding HCl) emissions shall not exceed 0.0057 pound / ton coal from the waste gas stack.

Applicable Compliance Method:

The emission limitation was derived by the summation of the individual HAP pollutant pound per ton emission factors [Table 12.2-20 of Draft AP-42 Section 12.2 dated July, 2001] and HNCC test data.

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation:

Lead emissions shall not exceed 0.30 pound per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 12 or 29.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.



d. Emission Limitation:

HAPs (excluding HCl) emissions shall not exceed 0.031 pound/ton of coal from a single HRSG by-pass vent stack.

Applicable Compliance Method:

The emissions limit was derived from calculating the summation of the individual HAP pollutants lb/ton emission factors obtained from the draft AP-42, Section 12.2, Table 12.2-20, dated July 2001 and Haverhill Coke Company (HCC) test data.

e. Emission Limitation:

HAPs (excluding HCl) emissions for emissions units P001, P002, P901, and P902, combined shall not exceed 6.43 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of i through iv below

i. Waste Gas Stack:

Compliance shall be demonstrated by multiplying the summation of the individual HAP pollutant pound per ton emission factors [Table 12.2-20 of Draft AP-42 Section 12.2 dated July, 2001] by the maximum annual coal charge rate (assuming 95% removal of metals except lead and mercury) divided by 2000 lbs/ton.

ii. Pushing Stack:

Compliance 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, (emission factors from October 1989 Jewell stack test) by the wet tons of coal charged per year divided by 2000 lbs per ton.

iii. Charging Baghouse:

Compliance shall be demonstrated 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 draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

iv. Quench Towers:

Compliance 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. By-Pass Vent Stacks:

Compliance shall be demonstrated by multiplying the summation of the individual HAP pollutant pound per ton emission factors [Table 12.2-20 of Draft AP-42 Section 12.2 dated July, 2001] by the times the tons of coal charged per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 5 vent stacks divided by 2,000 lbs/ton.

f. Emission Limitation:

Visible particulate emissions from waste gas stack A/B 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 Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

g. Emission Limitation:

Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

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

h. Emission Limitation:

No visible emissions shall be permitted from the waste gas common duct or its associated piping.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 and the procedures and methods required in OAC rule 3745-17-03(B)(4).

i. Emission Limitation:

PM/PM<sub>10</sub> emissions shall not exceed 17.14 pounds per hour from the waste gas stack.



Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

j. Emission Limitation:

PM/PM<sub>10</sub> emissions shall not exceed 75.09 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the PM/PM<sub>10</sub> emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM<sub>10</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

k. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 192.0 pounds per hour as a 3 hour block average from the waste gas stack except during maintenance of the lime spray dryer and ancillary equipment (e.g. atomizer replacements).

Applicable Compliance Method:

Continual compliance shall be demonstrated from the three hour average SO<sub>2</sub> emission rate obtained from the SO<sub>2</sub> continuous emissions monitor on the lime spray dryer for the coke oven battery waste gas exhaust.

l. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 700.80 tons per year as a rolling, 12-month summation from the waste gas stack

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current months' emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by adding the SO<sub>2</sub> emissions rate in pounds/day for each day of the calendar month, as measured by the SO<sub>2</sub> continuous emissions monitor and dividing by 2,000 pounds/ton.

m. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 120.0 pounds per hour from the waste gas stack.



Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7E.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

n. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 438.0 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the NO<sub>x</sub> emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO<sub>x</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

o. Emission Limitation:

CO emissions shall not exceed 21.81 pounds per hour from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

p. Emission Limitation:

CO emissions shall not exceed 95.54 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the CO emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The CO emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.



q. Emission Limitation:

VOC emissions shall not exceed 4.67 pounds per hour from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 25 or 25A, as appropriate.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

r. Emission Limitation:

VOC emissions shall not exceed 20.47 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the VOC emission factor, in pounds/ton coal, times the tons of coal charged per month. The VOC emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

s. Emission Limitation:

PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 35.57 pounds per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 51 Appendix M, Methods 201 and 202. The HRSG bypass vent stack testing is only required on one of the ten bypass vent stacks.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

The emission limit was derived by multiplying the grains of PM/PM<sub>10</sub> / dscf of 0.083 times the maximum flow rate of the waste gas vented multiplied by an estimated 20% of total gas flow vented times 60 minutes per hour divided by 7000 grains per pound. The PM/PM<sub>10</sub> emission estimate was obtained from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10 /1989.

t. Emission Limitation:

PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 34.15 tons per year from all HRSG by-pass vent stacks combined from P901 and P902.



Applicable Compliance Method:

The annual emissions limit was determined by multiplying the hourly emissions limit from a single HRSG bypass vent stack times the number of allowable bypass hours (1,920) divided by 2,000 pounds per ton.

u. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 480.0 pounds per hour as a 3 hour block average from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6C.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

The emissions limit was derived by multiplying the SO<sub>2</sub> emission factor of 20 pounds/ton times the tons of coal charged per hour multiplied by an estimated 20% total gas venting. The SO<sub>2</sub> emission factor was derived using a material balance based on data from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10 / 1989 and assuming a coal sulfur content of 1.3%.

v. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 384.0 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

The emission limit was derived by multiplying the SO<sub>2</sub> emission factor of 20 pounds/ton times the tons of coal charged of 2,400 tons per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 10 vent stacks divided by 2,000 lbs/ton. The SO<sub>2</sub> emission factor was derived using a material balance based on data from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10/1989 and assuming a coal sulfur content of 1.3%.

w. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 24.0 pounds per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NO<sub>x</sub> emission factor of 1 pound/ton times the tons of coal charged per hour multiplied by an estimated 20% of total gas venting. The NO<sub>x</sub> emission factor was obtained from a EPA stack test data at Jewell Coke Co. dated September 1992.



x. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 19.20 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

The emission limit was derived by multiplying the NO<sub>x</sub> emission factor of 1 pound/ton times the tons of coal charged of 2,400 tons per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 10 vent stacks divided by 2,000 lbs/ton. The NO<sub>x</sub> emission factor was obtained from a EPA stack test data at Jewell Coke Co. dated September 1992.

y. Emission Limitation:

CO emissions shall not exceed 4.36 pounds per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the CO emission factor of 20 ppm, times 28, the molecular weight of CO, divided by the 385,100,000 conversion factor, times the maximum waste gas flow, in dscf/min, times 60 minutes/hour, times 0.20, the fraction of the total waste gas produced expected to be vented from any single by-pass stack.

z. Emission Limitation:

CO emissions shall not exceed 4.19 tons per year from all the HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the CO emission factor of 20 ppm, times 28, the molecular weight of CO, divided by the 385,100,000 conversion factor, times the maximum waste gas flow, in dscf/min, times 60 minutes/hour, times 0.20, the fraction of the total waste gas produced expected to be vented from any single by-pass stack, times the total hours/year of all by-pass events, divided by 2,000 pounds/ton.

aa. Emission Limitation:

VOC emissions shall not exceed 0.93 pound per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the VOC 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, in dscf/min, times 60



minutes/hour, times 0.20, the fraction of the total waste gas produced expected to be vented from any single by-pass stack.

bb. Emission Limitation:

VOC emissions shall not exceed 0.90 ton per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the VOC 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, in dscf/min, times 60 minutes/hour, times 0.20, the fraction of the total waste gas produced expected to be vented from any single by-pass stack, times the total hours/year of all by-pass events, divided by 2,000 pounds/ton.

cc. Emission Limitation:

Particulate emissions from the lime spray dryer baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

dd. Emission Limitation:

1.6 pound SO<sub>2</sub> / ton coal from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

ee. Emission Limitation:

1 pound NO<sub>x</sub> / ton coal from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.



Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

ff. Emission Limitation:

20 ppm CO from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

gg. Emission Limitation:

10 ppm VOC from waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, 25 or 25A, as appropriate.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

hh. Emission Limitation:

Fugitive PM shall not exceed 3.89 pounds per hour from charging.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.027 pounds/ton coal charged times the maximum tons of wet coal charged per hour times the capture factor of 0.3 (70% capture rate). The PM emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

ii. Emission Limitation:

Fugitive PM shall not exceed 3.55 tons per year from charging.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.027 pounds/ton coal charged times the maximum tons of wet coal charged per year times the capture factor of 0.3 (70% capture rate), divided by 2,000 pounds/ton. The PM emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.



jj. Emission Limitation:

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

Applicable Compliance Method:

The permittee shall conduct a performance test each week to demonstrate compliance with this opacity limit. The permittee shall conduct each performance test according to the procedures and requirements in paragraphs (i)(a) through (iii) below.

- i. Using a certified observer, determine the average opacity of five consecutive charges per week for each charging emissions capture system if charges can be observed according to Method 9 (40 CFR Part 60, Appendix A), except as specified in paragraphs (a) and (b) below.
  - (a) Instead of the procedures in section 2.4 of Method 9 (40 CFR Part 60, Appendix A), record observations to the nearest 5 percent at 15-second intervals for at least five consecutive charges.
  - (b) Instead of the procedures in section 2.5 of Method 9 (40 CFR Part 60, Appendix A), determine and record the highest 3-minute block average opacity for each charge from the consecutive observations recorded at 15-second intervals.
- ii. Opacity observations are to start when the door is removed for charging and end when the door is replaced.
- iii. Using the observations recorded from each performance test, the certified observer shall compute and record the average of the five 3-minute block averages.

kk. Emission Limitation:

PM/PM<sub>10</sub> emissions shall not exceed 0.0081 pound per ton of dry coal charged from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

ll. Emission Limitation:

PM/PM<sub>10</sub> emissions shall not exceed 3.3 tons per year as a rolling, 12-month summation from the charging baghouse.



Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the PM emission factor, in pounds / ton dry coal, by the tons coal charged per month. The PM emission factor was obtained from 40 CFR Part 63, Subpart L, section 63.303(d)(2), dated April 15, 2005.

mm. Emission Limitation:

Fugitive PM<sub>10</sub> emissions shall not exceed 1.17 pounds per hour from charging.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.027 pounds/ton coal charged, times the tons of wet coal charged per hour by the capture factor of 0.3 (70% capture rate) by 0.30 the fraction of TSP estimated to by PM<sub>10</sub>. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

nn. Emission Limitation:

Fugitive PM<sub>10</sub> emissions shall not exceed 1.06 tons per year as a rolling, 12-month summation from charging.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the emission factor of 0.027 pounds/ton coal charged, times the tons of wet coal charged per month by the capture factor of 0.3 (70% capture rate) by 0.30 the fraction of TSP estimated to by PM<sub>10</sub>, divided by 2,000 pounds/ton. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

oo. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.14 pound per hour from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0003 pounds/ton wet coal charged, times the tons of wet coal charged per hour. The SO<sub>2</sub> emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

pp. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.13 ton per year as a rolling, 12-month summation from charging baghouse.



Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the emission factor of 0.0003 pounds/ton wet coal charged, times the tons of wet coal charged per month, divided by 2,000 pounds/ton. The SO<sub>2</sub> emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

qq. Emission Limitation:

CO emissions shall not exceed 1.34 pounds per hour from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0028 pounds/ton wet coal charged times the wet tons of coal charged per hour. The CO emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

rr. Emission Limitation:

CO emissions shall not exceed 1.23 tons per year as a rolling, 12-month summation from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the emission factor of 0.0028 pound/ton wet coal charged, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The CO emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

ss. Emission Limitation:

VOC emissions shall not exceed 0.96 pound per hour from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0020 lb VOC/wet ton coal charged, times the wet tons of coal charged per hour. The VOC emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.



tt. Emission Limitation:

VOC emissions shall not exceed 0.88 ton per year as a rolling, 12-month summation from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the emission factor of 0.0020 lb VOC/wet ton coal charged, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The VOC emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

uu. Emission Limitation:

Visible particulate emissions from the charging baghouse stacks 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 Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

vv. Emission Limitation:

Visible particulate emissions of fugitive dust from pushing operations shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

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

ww. Emission Limitation:

PM/PM<sub>10</sub> emissions shall not exceed 13.72 pounds per hour from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emissions factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.



xx. Emission Limitation:

PM/PM<sub>10</sub> emissions shall not exceed 12.53 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the PM/PM<sub>10</sub> emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM<sub>10</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

yy. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 24lbs/hr SO<sub>2</sub> from the flat push hot car vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

zz. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 21.9 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the SO<sub>2</sub> emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The SO<sub>2</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

aaa. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 7.68 pounds per hour from the flat push hot car vented to multiclone dust collector.



Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

bbb. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 7.01 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the NO<sub>x</sub> emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO<sub>x</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

ccc. Emission Limitation:

CO emissions shall not exceed 36.96 pounds per hour from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

ddd. Emission Limitation:

CO emissions shall not exceed 33.73 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the CO emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The CO



emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

eee. Emission Limitation:

VOC emissions shall not exceed 96.0 pounds per hour from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

fff. Emission Limitation:

VOC emissions shall not exceed 87.6 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the VOC emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The VOC emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

ggg. Emission Limitation:

Filterable particulate emissions from the flat push hot car vented to multiclone dust collector exhaust shall not exceed 0.04 lb PM<sub>10</sub> / ton of coke.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

hhh. Emission Limitation:

0.05 pound SO<sub>2</sub> / ton coal from the flat push hot car vented to multiclone dust collector



Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

iii. Emission Limitation:

0.016 pound NO<sub>x</sub> / ton coal from the flat push hot car vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

jjj. Emission Limitation:

0.077 pound CO / ton coal from the flat push hot car vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

kkk. Emission Limitation:

0.2 pound VOC / ton coal from the flat push hot car vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 25 or 25A, as appropriate.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.



III. Emission Limitation:

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).

mmm. Emission Limitation:

Lead emissions shall not exceed 0.41ton per year for emissions units P901, P902, P001, and P002 combined.

Applicable Compliance Method:

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

i. waste gas stack

Compliance shall be demonstrated by adding the current month's emissions to the emission for the preceding eleven calendar months. 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

Compliance shall be demonstrated by adding the current month's emissions to the emission for the preceding eleven calendar months. 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 draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

iii. pushing

Compliance shall be demonstrated by adding the current month's emissions to the emission for the preceding eleven calendar months. 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 towers

Compliance shall be demonstrated by adding the current month's emissions to the emission for the preceding eleven calendar months. 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.

v. by-pass vent stacks:

Compliance shall be demonstrated by multiplying the lead pound per ton emission factors [Table 12.2-20 of Draft AP-42 Section 12.2 dated July, 2001] by the times the tons of coal charged per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 10 vent stacks divided by 2,000 lbs/ton.

nnn. Emission Limitation:

0.0 percent leaking coke oven doors, or ovens operated under a negative pressure.

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring/recordkeeping requirements in section C.3.d)(10) of this permit.

ooo. Emission Limitation:

HCl emissions shall not exceed 0.10 pound of HCl per ton of coal and 12.06 pounds per hour from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 26.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

ppp. Emission Limitation:

HCl emissions shall not exceed 44.02 tons per year from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in lb/ton coal, times the tons coal charged per year, divided by 2,000 pounds/ton. The HCl emission factor shall be calculated from the most recent performance test which demonstrated compliance.



qqq. Emission Limitation:

HCl emissions shall not exceed 2.01 pounds of HCl per ton coal and 48.24 pounds per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 26.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

rrr. Emission Limitation:

HCl emissions shall not exceed 38.59 tons per year from all HRSG by-pass vent stacks combined for emissions units P901 and P902.

Applicable Compliance Method:

The emission limitation was derived by multiplying the HCl emission factor of 2.01 pounds per ton times the tons of coal charged per day multiplied by an estimated 20% of total gas venting times 8 days of venting times the 10 vent stacks (P901 & P902 combined) divided by 2,000 pounds per ton. The HCl emission factor was obtained from stack test data at Haverhill Coke Company dated June 2005.

g) Miscellaneous Requirements

(1) None.



**4. P902, Waste Gas from Coking, Charging, & Pushing (CD Battery)**

**Operations, Property and/or Equipment Description:**

60 oven nonrecovery coke oven battery (C battery) and 40 oven nonrecovery coke oven battery (D battery) with heat recovery steam generators and gas sparging.

Administrative modification to revise the P902 waste gas baghouse pressure drop range, to revise the individual HRSG maintenance limit of 192 hours per year to a combined HRSG maintenance limit of 1,920 hours per year for all 10 HRSGs which includes revising the tons per year emission limitation to reflect the combined emissions with no increase in annual emissions, to allow the waste gas stack pound per hour SO<sub>2</sub> emission limit to not apply during lime spray dryer maintenance and to revise the daily coal charge limit to be based on a 7-day rolling average, and minor revisions to the mercury monitoring.

- 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
	<i>Waste Gas from Coking Process with lime spray dryer with baghouse, staged combustion and activated carbon injection</i>	
a.	OAC rule 3745-31-05(A)(3)	Lead (Pb) emissions shall not exceed 0.060 pound per hour from the waste gas stack.  Hazardous Air Pollutant (HAP) (excluding HCl) emissions shall not exceed 0.0057 pound/ton coal from the waste gas stack.  Lead emissions shall not exceed 0.30 pound per hour from a single heat recovery steam generator (HRSG) bypass vent stack.  HAP emissions shall not exceed 0.031 pound/ton coal from a single HRSG bypass vent stack.  See b)(2)i. below.  HCl emissions shall not exceed 0.10



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>pound/ton coal from the waste gas stack</p> <p>HCl emissions shall not exceed 12.06 pounds per hour and 44.02 tons per year from the waste gas stack.</p> <p>HCl emissions shall not exceed 2.01 pound/ton coal from a single HRSG by-pass vent stack.</p> <p>HCl emissions shall not exceed 48.24 pounds per hour from a single HRSG by-pass vent stack and 38.59 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.</p> <p>Mercury (Hg) emissions shall not exceed 0.008 pound per hour and 6.34 pounds per rolling 12-month period from all HRSG by-pass vent stacks for emissions unit P902.</p> <p>Mercury (Hg) emissions shall not exceed 0.01 pound per hour as a 30-day average and 55.5 pounds per rolling 12-month period from the waste gas stack.</p> <p>See b)(2)j. and b)(2)k. below.</p> <p>Visible particulate emissions from the waste gas exhaust stack(s) shall not exceed 10% opacity as a 6-minute average.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through 20.</p>
b.	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	<p>PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 30.69 pounds per hour from the waste gas stack.</p> <p>PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 134.43 tons per year as a rolling, 12-month summation from the waste gas stack.</p> <p>SO<sub>2</sub> emissions shall not exceed 192.0 pounds per hour as a 3 hour block average from the waste gas stack except during maintenance of the lime spray dryer and ancillary equipment (e.g. atomizer replacements).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>See b)(2)p.</p> <p>SO<sub>2</sub> emissions shall not exceed 700.80 tons per year as a rolling, 12-month summation from the waste gas stack.</p> <p>NO<sub>x</sub> emissions shall not exceed 120.0 pounds per hour from the waste gas stack.</p> <p>NO<sub>x</sub> emissions shall not exceed 438.0 tons per year as a rolling, 12-month summation from the waste gas stack.</p> <p>CO emissions shall not 21.81 pounds per hour from the waste gas stack.</p> <p>CO emissions shall not exceed 95.54 tons per year as a rolling, 12-month summation from the waste gas stack.</p> <p>VOC emissions shall not exceed 4.67 pounds per hour from the waste gas stack.</p> <p>VOC emissions shall not exceed 20.47 tons per year as a rolling, 12-month summation from waste gas stack.</p> <p>PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 35.57 pounds per hour from a single HRSG by-pass vent stack.</p> <p>PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 34.15 tons per year from all HRSG by-pass vent stacks combined for emissions units P901 and P902.</p> <p>SO<sub>2</sub> emissions shall not exceed 480.0 pounds per hour as a 3 hour block average from a single HRSG by-pass vent stack.</p> <p>SO<sub>2</sub> emissions shall not exceed 384.0 tons per year from all HRSG by-pass vent stacks combined for emissions units P901 and P902.</p> <p>NO<sub>x</sub> emissions shall not exceed 24.0 pounds per hour from a single HRSG by-pass vent stack.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>NO<sub>x</sub> emissions shall not exceed 19.2 tons per year from all by-pass vent stacks combined for emissions units P901 and P902.</p> <p>CO emissions shall not exceed 4.36 pounds per hour from a single HRSG by-pass vent stack.</p> <p>CO emissions shall not exceed 4.19 tons per year from all HRSG by-pass vent stacks combined for emissions units P901 and P902.</p> <p>VOC emissions shall not exceed 0.93 pound per hour from a single HRSG by-pass vent stacks.</p> <p>VOC emissions shall not exceed 0.90 tons per year from all HRSG by-pass vent stacks combined for emissions units P901 and P902.</p> <p>Particulate emissions from the lime spray dryer baghouse exhaust shall not exceed 0.014 gr/dscf of exhaust gases.</p> <p>See b)(2)l. below.</p> <p>1.6 pound SO<sub>2</sub>/ton of coal from the waste gas stack.</p> <p>1 pound NO<sub>x</sub>/ton of coal from the waste gas stack.</p> <p>20 ppm CO from the waste gas stack.</p> <p>10 ppm VOC from the waste gas stack.</p> <p>See b)(2)a. below.</p>
c.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11(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).
e.	OAC rule 3745-18-06(E)(2)	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).
f.	OAC rule 3745-31-05 (D)	See b)(2)c. below.
g.	40 CFR Part 63, Subpart L	See b)(2)d., b)(2)e., and b)(2)f. below.
h.	OAC rule 3745-114-01	See Section B.3.
<i>Charging Operations with baghouse with traveling hood</i>		
i.	OAC rule 3745-31-05(A)(3)	<p>Fugitive PM emissions shall not exceed 3.89 pounds per hour from charging.</p> <p>Fugitive PM emissions shall not exceed 3.55 tons per year from charging.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), 40 CFR Part 52.21 and 3745-31-10 through 20.</p> <p>Visible particulate emissions from the charging baghouse stack shall not exceed 10% opacity as a 6-minute average.</p> <p>Visible particulate emissions fugitive dust from charging operations shall not exceed 20% opacity as an average of 5 consecutive charges.</p>
j.	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	<p>Filterable PM/PM<sub>10</sub> emissions shall not exceed 0.0081 pound per ton of dry coal charged from the charging baghouse.</p> <p>Filterable PM/PM<sub>10</sub> emissions shall not exceed 3.3 tons per year as a rolling, 12-month summation from the charging baghouse.</p> <p>Fugitive PM<sub>10</sub> emissions shall not exceed 1.17 pounds per hour from charging.</p> <p>Fugitive PM<sub>10</sub> emissions shall not exceed 1.06 tons per year as a rolling, 12-month summation from charging.</p> <p>SO<sub>2</sub> emissions shall not exceed 0.144 pound per hour from the charging baghouse.</p> <p>SO<sub>2</sub> emissions shall not exceed 0.13 ton per year as a rolling, 12-month</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>summation from the charging baghouse.</p> <p>CO emissions shall not exceed 1.34 pounds per hour from the charging baghouse.</p> <p>CO emissions shall not exceed 1.23 tons per year as a rolling, 12-month summation from the charging baghouse.</p> <p>VOC emissions shall not exceed 0.96 pound per hour VOC from the charging baghouse.</p> <p>VOC emissions shall not exceed 0.88 ton per year as a rolling, 12-month summation from the charging baghouse.</p> <p>Filterable Particulate emissions from the charging baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases.</p> <p>See b)(2)a. below.</p> <p>0.0003 pound of SO<sub>2</sub>/ton of coal from the charging baghouse.</p> <p>0.0028 pound of CO/ton of coal from the charging baghouse.</p> <p>0.002 pound VOC/ton of coal from the charging baghouse.</p>
k.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
l.	OAC rule 3745-17-11(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).
m.	OAC rule 3745-31-05(D)	See b)(2)c. below.
n.	40 CFR Part 63, Subpart L	See b)(2)d, b)(2)e., and b)(2)f. below.
o.	OAC rule 3745-114-01	See B.3.
<i>Pushing Operations with FPHC vented to multiclone dust collector</i>		
p.	OAC rule 3745-31-05(A)(3)	Visible particulate emissions of fugitive dust from the pushing operations shall not exceed 20% opacity as a 3-minute



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>average.</p> <p>See b)(2)b. below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and 3745-31-10 through 20.</p>
q.	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	<p>Filterable PM/PM<sub>10</sub> emissions shall not exceed 13.72 pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>Filterable PM/PM<sub>10</sub> emissions shall not exceed 12.53 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>SO<sub>2</sub> emissions shall not exceed 24 pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>SO<sub>2</sub> emissions shall not exceed 28.8 pounds per hour as a 3 hour average from the flat push hot car vented to multiclone dust collector.</p> <p>SO<sub>2</sub> emissions shall not exceed 21.90 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>NOx emissions shall not exceed 7.68 pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>NOx emissions shall not exceed 7.01 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>CO emissions shall not 36.96 pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>CO emissions shall not exceed 33.73 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>VOC emissions shall not exceed 96.0</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>pounds per hour from the flat push hot car vented to multiclone dust collector.</p> <p>VOC emissions shall not exceed 87.60 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.</p> <p>Filterable Particulate emissions from the flat push hot car vented to multiclone dust collector exhaust shall not exceed 0.04 lb. of PM<sub>10</sub>/ton of coke.</p> <p>See b)(2)a. below.</p> <p>0.05 pound SO<sub>2</sub>/ton of coal from the flat push hot car vented to multiclone dust collector.</p> <p>0.016 pound NO<sub>x</sub>/ton of coal from the flat push hot car vented to multiclone dust collector.</p> <p>0.077 pound CO/ton of coal from the flat push hot car vented to multiclone dust collector.</p> <p>0.2 pound VOC/ton of coal from the flat push hot car vented to multiclone dust collector.</p>
r.	40 CFR Part 63, Subpart CCCCC	See b)(2)h. below.
s.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the flat push hot car vented to multiclone dust collector stacks shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
t.	OAC rule 3745-17-11(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).
u.	OAC rule 3745-31-05(D)	See b)(2)c. below.
v.	OAC rule 3745-114-01	See Section B.3.

(2) Additional Terms and Conditions

- a. OAC rule 3745-31-15 requires the following best available control technologies:
  - i. The waste gas from coking shall be processed by the use of a lime spray dryer with a manufacturer's design control efficiency of 92% for SO<sub>2</sub> control except during maintenance of the lime spray dryer and ancillary



equipment (e.g. atomizer replacements), staged combustion for NOx control, combustion optimization for CO and VOC control, and a baghouse for PM control.

- ii. The pushing operations shall employ a mobile hood with a multiclone dust collector for PM control and work practices for CO and VOC control.
- iii. The charging operations shall employ a baghouse with a traveling hood for PM control.

- b. The emissions control system for the pushing operation(s) shall maintain a minimum capture efficiency of 98%.
- c. Lead emissions shall not exceed 0.41ton per year as a rolling, 12-month summation for emissions units P901, P902, P001, and P002 combined.
- d. [40 CFR 63.300(e)]

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.

- e. [40 CFR 63.303(b)(1)]

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.

- f. [40 CFR 63.303(b)(2)]

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.

- g. [40 CFR 63.7300 (a)]

As required by §63.6(e)(1)(i), the permittee must always operate and maintain your 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.

- h. [40 CFR 63. 7300(c)(1) through (3)]

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.
- i. Hazardous Air Pollutant (HAPs) emissions (excluding HCl) shall not exceed 6.43 tons per year for emissions units P001, P002, P901 and P902, combined.
  - j. The permittee shall operate and maintain an activated carbon injection system for the control of mercury emissions as required to comply with the mercury emissions from the waste gas stack. The activated carbon injection system shall be designed for an activated carbon injection rate of at least 60 pounds per hour. The system shall be operated, at all times when one or more of the associated ovens are operated, in a manner that will maximize the removal efficiency for mercury.
  - k. The facility may petition the director to remove the continuous mercury monitoring term listed in section d)(40 through d)(44). The director may remove the language if emissions are considered to be consistent and understood of normal coking operations.
  - l. PM and PM<sub>10</sub> emissions limitations are representative of condensible and filterable particulate emissions from the waste gas and bypass stacks.
  - m. When charging coal with 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<sub>2</sub> emissions to comply with the pound per hour and rolling 12-month SO<sub>2</sub> emission limitations; or
    - ii. reduce production as needed to comply with the pound per hour and rolling 12-month SO<sub>2</sub> emission limitations.
  - n. The permittee shall maintain a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system, designed to ensure continuous valid and representative readings of SO<sub>2</sub> emissions 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 log book dedicated to the continuous



SO<sub>2</sub> monitoring system shall 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 60.13; 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 60.13.

- o. The continuous emission monitoring system consists 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.
- p. The pound per hour SO<sub>2</sub> emission limitation and minimum 92% SO<sub>2</sub> control efficiency requirement do not apply during maintenance of the lime spray dryer as per example during atomizer replacement. This exemption may be used for no more than one 3-hr block average per week.
- q. The hourly and annual emission limits for PM/PM<sub>10</sub> (filterable and condensable) established for the HRSG by-pass vent stacks were developed using testing data from a similar facility. The permittee reserves the right to request an administrative permit modification to revise these limits based on site-specific emissions data obtained during any required performance test, if necessary.

c) Operational Restrictions

- (1) The pressure drop across the waste gas exhaust baghouse shall be maintained within the range of 3 to 15 inches of water while the emissions unit is in operation.
- (2) The pressure drop across each charging baghouse shall be maintained within the range of 3 to 12 inches of water while the emissions unit is in operation.
- (3) The permittee shall operate and maintain common duct temperatures at a minimum of 1400 °F as established in the Work Practice Plan to ensure emission limits for the waste gas exhaust are not exceeded.

Gas sparging is allowed for natural gas usage up to 100 MMBTU/hr to be introduced in the common tunnel.

- (4) The maximum hourly charging/pushing rate for this emissions unit shall not exceed 10 ovens per hour.
- (5) The maximum daily wet coal usage rate for this emissions unit shall not exceed 2,400 wet tons coal, based on a 7-day rolling average.
- (6) The maximum annual wet coal usage rate for this emissions unit shall not exceed 876,000 tons, based upon a rolling, 12-month summation of the wet coal usage rates. This emissions unit is an existing emissions unit and therefore has existing records and does not need to be restricted on a monthly basis.
- (7) [40 CFR 63.310]



At all times including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the coke oven battery and its pollution control equipment required under 40 CFR Part 63, Subpart L, in a manner consistent with good air pollution control practices for minimizing emissions to the levels required by any applicable performance standards under 40 CFR Part 63, Subpart L. Failure to adhere to the requirements of this paragraph shall not constitute a separate violation if a violation of an applicable performance or work practice standard has also occurred.

(8) [40 CFR 63.7290(b)(3)]

For each capture system applied to pushing emissions, the permittee shall:

(a) 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.; or

(b) For each capture system that uses an electric motor to drive the fan, the permittee shall maintain the daily average fan motor amperes at or above the minimum level established during the initial performance test; and

(c) For each capture system that does not use a fan driven by an electric motor, the permittee shall maintain the daily average static pressure at the inlet to the control device at on equal or greater vacuum than the level established during the initial performance test or maintain the daily average fan revolutions per minute (RPM) at or above the minimum level established during the initial performance test.

(9) [40 CFR 63.7290(b)(4)]

For each multiclone, the permittee shall maintain the daily average pressure drop at or below the maximum level established during the initial or subsequent performance test.

(10) [40 CFR 63.7293(a)(1)]

The permittee shall visually inspect each oven prior to pushing by opening the door damper and observing the bed of coke.

(11) [40 CFR 63.7293(a)(2)]

The permittee shall not push the oven unless the visual inspection indicates that there is no smoke in the open space above the coke bed and that there is an unobstructed view of the door on the opposite side of the oven.

(12) 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.

(13) 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

- (14) Waste gas emissions shall not be vented to the HRSG bypass vent stacks for HRSG or ancillary equipment (e.g. vent stack lid) maintenance for more than 1,920 hours per rolling 12-month period for vent stacks VS1 thru VS10 (P901 and P902 combined). There shall be no more than one HRSG bypass vent stack at either P901 or P902 in use at any time.
  - (15) The permittee shall maintain an activated carbon injection rate of at least 60 pounds per hour. A reduced activated carbon injection rate operational restriction may later be established by Ohio EPA, if the permittee demonstrates to the Director's satisfaction that a lower activated carbon injection rate can achieve the mercury emission limitation.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the waste gas baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual (s). The permittee shall record the pressure drop across the baghouse on a once per shift basis.
  - (2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across each charging baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each baghouse on a once per shift basis.
  - (3) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the flat push hot car (FPHC) vented to multiclone dust collector while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
- The hood and duct work collecting pushing emissions shall be visually examined monthly for areas potentially needing repair. When an inspection identifies an area needing repair, the permittee shall maintain records of the date the inspection, the dates of each attempt to repair, the repair methods of each attempt to repair, and the date of successful repair.
- (4) The permittee shall maintain daily records of the coal usage rate, in wet tons, in this emissions unit.
  - (5) The permittee shall maintain hourly records of the charging/pushing rate, in number of charges/pushes per hour, for this emissions unit.



- (6) The permittee shall maintain monthly records of the following information:
  - a. the wet coal usage rate for each month; and
  - b. the rolling, 12-month summation of the wet coal usage rates.
- (7) The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> from the waste gas stack in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to:

- a. emissions of SO<sub>2</sub> in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. emissions of SO<sub>2</sub> in pounds per hour and in 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<sub>2</sub> monitoring system, and control equipment;
- g. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO<sub>2</sub> 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<sub>2</sub> 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).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (8) 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<sub>2</sub> 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.

- (9) The permittee shall monitor and record the temperature of the common battery tunnel on a once per shift basis.
- (10) The permittee shall monitor and record, once per day for each day of operation, the pressure in the common battery tunnel to ensure that the ovens are operated under a negative pressure.

- (11) [40 CFR 63.306(a)]

The permittee shall prepare and submit to the Administrator a written emission control work practice plan for each coke oven battery, in accordance with 40 CFR Part 63, Subpart L, Section 63.306, within 45 days of startup of the first coke oven battery facility.

The plan shall be designed to achieve compliance with visible emission limitations for coke oven doors, and charging operations under this subpart or, for a coke oven battery not subject to visible emission limitations under this subpart, other federally enforceable visible emission limitations for these emission points.

- a. The work practice plan must address each of the topics specified in paragraph (b) of 40 CFR 63.306 in sufficient detail and with sufficient specificity to allow the Administrator to evaluate the plan for completeness and enforceability.
- b. The Administrator may require revisions to the initial plan only where the Administrator finds either that the plan does not address each subject area listed in paragraph (b) of 40 CFR 63.306 for each emission point subject to a visible emission standard under this subpart, or that the plan is unenforceable because it contains requirements that are unclear.
- c. During any period of time that an owner or operator is required to implement the provisions of a plan for a particular emission point, the failure to implement one or more obligations under the plan and/or any recordkeeping requirement(s) under §63.311(f)(4) for the emission point during a particular day is a single violation.

- (12) [40 CFR 63.306(b)]

Plan components. The permittee shall organize the work practice plan to indicate clearly which parts of the plan pertain to each emission point subject to visible emission standards under this subpart. Each of the following provisions, at a minimum, shall be addressed in the plan:

- a. An initial and refresher training program for all coke plant operating personnel with responsibilities that impact emissions, including contractors, in job requirements related to emission control and the requirements of this subpart, including work practice requirements. Contractors with responsibilities that impact emission control may be trained by the owner or operator or by qualified contractor personnel; however, the owner or operator shall ensure that the



contractor training program complies with the requirements of this section. The training program in the plan must include:

- i. A list, by job title, of all personnel that are required to be trained and the emission point(s) associated with each job title;
  - ii. An outline of the subjects to be covered in the initial and refresher training for each group of personnel;
  - iii. A description of the training method(s) that will be used (e.g., lecture, video tape);
  - iv. A statement of the duration of initial training and the duration and frequency of refresher training;
  - v. A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion of the initial and refresher training; and
  - vi. A description of the procedure to be used to document performance of plan requirements pertaining to daily operation of the coke oven battery and its emission control equipment, including a copy of the form to be used, if applicable, as required under the plan provisions implementing paragraph (b)(7) of 40 CFR 63.306.
- b. Procedures for controlling emissions from nonrecovery coke oven batteries including:
- i. Procedures for charging coal into the oven, including any special procedures for minimizing air infiltration during charging, maximizing the draft on the oven, and for replacing the door promptly after charging;
  - ii. If applicable, procedures for the capture and control of charging emissions;
  - iii. Procedures for cleaning coke from the door sill area for both sides of the battery after completing the pushing operation and before replacing the coke oven door;
  - iv. Procedures for cleaning coal from the door sill area after charging and before replacing the push side door;
  - v. Procedures for filling gaps around the door perimeter with sealant material, if applicable; and
  - vi. Procedures for detecting and controlling emissions from smoldering coal.
- c. Procedures for maintaining, for each emission point subject to visible emission limitations under this subpart, a daily record of the performance of plan requirements pertaining to the daily operation of the coke oven battery and its emission control equipment, including:



- i. Procedures for recording the performance of such plan requirements; and
  - ii. Procedures for certifying the accuracy of such records by the owner or operator.
- d. Any additional work practices or requirements specified by the Administrator according to paragraph (d) of 40 CFR 63.306.

(13) [40 CFR 63.306(c)]

Implementation of work practice plans. On and after November 15, 1993, the owner or operator of a coke oven battery shall implement the provisions of the coke oven emission control work practice plan according to the following requirements:

- a. (1) The owner or operator of a coke oven battery subject to visible emission limitations under this subpart on and after November 15, 1993, shall:
  - i. Implement the provisions of the work practice plan pertaining to a particular emission point following the second independent exceedance of the visible emission limitation for the emission point in any consecutive 6-month period, by no later than 3 days after receipt of written notification of the second such exceedance from the certified observer. For the purpose of paragraph (c)(1)(i) of 40 CFR 63.306, the second exceedance is "independent" if either of the following criteria is met:
    - (A) The second exceedance occurs 30 days or more after the first exceedance;
    - (B) In the case of coke oven doors, topside port lids, and offtake systems, the 29-run average, calculated by excluding the highest value in the 30-day period, exceeds the value of the applicable emission limitation; or
    - (C) In the case of charging emissions, the 29-day logarithmic average, calculated in accordance with Method 303 in appendix A to this part by excluding the valid daily set of observations in the 30-day period that had the highest arithmetic average, exceeds the value of the applicable emission limitation.
  - ii. Continue to implement such plan provisions until the visible emission limitation for the emission point is achieved for 90 consecutive days if work practice requirements are implemented pursuant to paragraph (c)(1)(i) of 40 CFR 63.306. After the visible emission limitation for a particular emission point is achieved for 90 consecutive days, any exceedances prior to the beginning of the 90 days are not included in making a determination under paragraph (c)(1)(i) of 40 CFR 63.306.
- b. (2) The owner or operator of a coke oven battery not subject to visible emission limitations under this subpart until December 31, 1995, shall:



- i. Implement the provisions of the work practice plan pertaining to a particular emission point following the second exceedance in any consecutive 6-month period of a federally enforceable emission limitation for that emission point for coke oven doors, topside port lids, offtake systems, or charging operations by no later than 3 days after receipt of written notification from the applicable enforcement agency; and
- ii. Continue to implement such plan provisions for 90 consecutive days after the most recent written notification from the enforcement agency of an exceedance of the visible emission limitation.

(14) [40 CFR 63.306(d)]

Revisions to plan. Revisions to the work practice emission control plan will be governed by the provisions in paragraph (d) and in paragraph (a)(2) of 40 CFR 63.306.

- a. (1) The Administrator may request the owner or operator to review and revise as needed the work practice emission control plan for a particular emission point if there are 2 exceedances of the applicable visible emission limitation in the 6-month period that starts 30 days after the owner or operator is required to implement work practices under paragraph (c) of 40 CFR 63.306. In the case of a coke oven battery subject to visual emission limitations under this subpart, the second exceedance must be independent under the criteria in paragraph (c)(1)(i) of 40 CFR 63.306.
- b. (2) The Administrator may not request the owner or operator to review and revise the plan more than twice in any 12 consecutive month period for any particular emission point unless the Administrator disapproves the plan according to the provisions in paragraph (d)(6) of 40 CFR 63.306.
- c. (3) If the certified observer calculates that a second exceedance (or, if applicable, a second independent exceedance) has occurred, the certified observer shall notify the owner or operator. No later than 10 days after receipt of such a notification, the owner or operator shall notify the Administrator of any finding of whether work practices are related to the cause or the solution of the problem. This notification is subject to review by the Administrator according to the provisions in paragraph (d)(6) of 40 CFR 63.306.
- d. (4) The owner or operator shall submit a revised work practice plan within 60 days of notification from the Administrator under paragraph (d)(1) of 40 CFR 63.306, unless the Administrator grants an extension of time to submit the revised plan.
- e. (5) If the Administrator requires a plan revision, the Administrator may require the plan to address a subject area or areas in addition to those in paragraph (b) of 40 CFR 63.306, if the Administrator determines that without plan coverage of such an additional subject area, there is a reasonable probability of further exceedances of the visible emission limitation for the emission point for which a plan revision is required.



- f. (6) The Administrator may disapprove a plan revision required under paragraph (d) of 40 CFR 63.306 if the Administrator determines that the revised plan is inadequate to prevent exceedances of the visible emission limitation under this subpart for the emission point for which a plan revision is required or, in the case of a battery not subject to visual emission limitations under this subpart, other federally enforceable emission limitations for such emission point. The Administrator may also disapprove the finding that may be submitted pursuant to paragraph (d)(3) of 40 CFR 63.306 if the Administrator determines that a revised plan is needed to prevent exceedances of the applicable visible emission limitations.

(15) [40 CFR 63.310(b)]

The permittee of a coke oven battery shall develop and implement a written startup, shutdown, and malfunction plan that describes procedures for operating the battery, including associated air pollution control equipment, during a period of a startup, shutdown, or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable.

(16) [40 CFR 63.310(g)]

To satisfy the requirements of 40 CFR Part 63, Section 63.310 to develop a startup, shutdown, and malfunction plan, the permittee may use the standard operating procedures manual for the battery, provided the manual meets all the requirements for 40 CFR Part 63, Section 63.310 and is made available for inspection at reasonable times when requested by the Administrator.

(17) [40 CFR 63.310(h)]

The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

- a. does not address a startup, shutdown, or malfunction event that has occurred
- b. fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions; or
- c. does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

(18) [40 CFR 63.310(i)]

If the permittee demonstrates to the satisfaction of the Administrator that a startup, shutdown, or malfunction has occurred, then an observation occurring during such startup, shutdown, or malfunction shall not:



- a. constitute a violation of relevant requirements of 40 CFR Part 63, Subpart L;
- b. be used in any compliance determination under 40 CFR Part 63, Section 63.309; or
- c. be considered for purposes of 40 CFR Part 63, Section 63.306, until the Administrator determines that a startup, shutdown, or malfunction has not occurred, such observations may be used for purposes of 40 CFR Part 63, Section 63.306, regardless of whether the permittee further contests such determination. The permittee's receipt of written notification from the Administrator that a startup, shutdown, or malfunction has not occurred will serve, where applicable under 40 CFR Part 63, Subpart 63.306, as written notification from the certified observer that an exceedance has occurred.

(19) [40 CFR 63.311(f)]

The permittee shall maintain files of all required information in a permanent form suitable for inspection at an onsite location for at least 1 year and must thereafter be assessable within 3 working days to the Administrator for a period of at least five years from the date of the monitoring sample, measurement, report or application.

(20) [40 CFR 63.311(f)]

Copies of the work practice plan developed under 40 CFR Part 63, Section 63.306 and the startup, shutdown, and malfunction plan developed under 40 CFR Part 63, Section 63.310 shall be kept onsite at all times. The permittee shall maintain the following information:

- a. records of daily pressure monitoring, according to 40 CFR Part 63, Section 63.303(b)(1)(ii);
- b. records demonstrating the performance of work practice requirements according to 40 CFR Part 63, Section 63.306(b)(7);
- c. design characteristics of each emission control system for the capture and collection of charging emissions, as required by 40 CFR Part 63, Section 63.303(b)(2).

(21) [40 CFR 63.311(f)(3)]

A copy of the work practice plan required by 40 CFR Part 63, Section 63.306 and any revision to the plan;

(22) [40 CFR 63.311(g)(1)-(4)]

Records required to be maintained and reports required to be filed with the Administrator, with a copy to the Portsmouth Local Air Agency, under 40 CFR Part 63, Subpart L shall be made available in accordance with the requirements of this section by the permittee to the authorized collective bargaining representative of the employees at a coke oven battery, for inspection and copying.



- a. requests under this term and condition shall be submitted in writing, and shall identify the records or reports that are subject to the request with reasonable specificity;
- b. the permittee shall produce the reports for inspection and copying within a reasonable period of time, not to exceed 30 days. A reasonable fee may be charged for copying (except for the first copy of any document), which shall not exceed the copying fee charged by the Administrator under part 2 of the CFR, chapter 40;
- c. nothing in this term and condition shall require the production for inspection or copying of any portion of a document that contains trade secret or confidential business information that the Administrator would be prohibited from disclosing to the public under part 2 of the CFR, chapter 40; and;
- d. the inspection or copying of document under this term and condition shall not in any way affect any property right of the permittee in such document under the laws for the protection of intellectual property, including the copyright laws.

(23) [40 CFR 63.310(f)]

The permittee shall maintain a record of internal reports which form the basis of each malfunction notification in accordance with 40 CFR Part 63.310(d).

(24) 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.

(25) [40 CFR 7330(d)]

For each capture system applied to pushing emissions, the permittee must at all times monitor the volumetric flow rate according to the requirements in §63.7331(g) or the fan motor amperes according to the requirements in §63.7331(h), or the static pressure or the fan RPM according to the requirements in §63.7331(i).

(26) [40 CFR 63.7330(f)]

For each multiclone applied to pushing emissions, the permittee must monitor at all times the pressure drop using a CPSM according to the requirements in §63.7331(k).

(27) [40 CFR 63.7331(g)]

If the permittee elects the operating limit in §63.7290(b)(3) for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure the total volumetric flow rate at the inlet to the control device.

(28) [40 CFR 63.7331(h)]

If the permittee elects the operating limit in §63.7290(b)(3)(i) for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure the fan motor amperes.



(29) [40 CFR 63.7331(i)]

If the permittee elects the operating limit in §63.7290(b)(3)(ii) for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure static pressure at the inlet of the control device or the fan RPM.

(30) [40 CFR 63.7331(k)]

For each multiclone applied to pushing emissions, you must install, operate, and maintain CPMS to measure and record the pressure drop across each multiclone during each push according to the requirements in paragraphs (b) through (d) of 40 CFR 63.7331 except as specified in paragraphs (e)(1) through (3) of 40 CFR 63.7331.

(31) [40 CFR 63.7333(d)]

For each capture system applied to pushing emissions and subject to the operating limit in 40 CFR 63.7290(b)(3), you must demonstrate continuous compliance by meeting the requirements in paragraph (d)(1), (2), or (3) of 40 CFR 63.7333 as summarized in d)(31)a. through c. below:

- a. If you elect the operating limit for volumetric flow rate in 40 CFR 63.7290(b)(3):
  - i. maintaining the daily average volumetric flow rate at the inlet of the control device at or above the minimum level established during the initial or subsequent performance test; and
  - ii. checking the volumetric flow rate at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.
- b. If you elect the operating limit for the fan motor amperes in 40 CFR 63.7290(b)(3)(i):
  - i. maintaining the daily average fan motor amperes at or above the minimum level established during the initial or subsequent performance test; and
  - ii. checking the fan motor average at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.
- c. If you elect the operating limit for static pressure or fan RPM in 40 CFR 7290(b)(3)(ii):
  - i. maintaining the daily average static pressure at the inlet to the control device at an equal or greater vacuum than established during the initial or subsequent performance test or the daily average fan RPM at or above the minimum level established during the initial or subsequent performance test; and



- ii. checking the static pressure or fan RPM at least every 8 hours to verify the daily average static pressure at the inlet to the control device is at an equal or greater vacuum than established during the initial or subsequent performance test or the daily average fan RPM is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.

(32) [40 CFR 7333(h)]

For each multiclone applied to pushing emissions and subject to the operating limit in 40 CFR 63.7290(b)(4), you must demonstrate compliance by meeting the requirements in paragraphs (h)(1) through (3) of 40 CFR 63.7333 as summarized in a. through c. below:

- a. maintaining the daily average pressure drop at a level at or below the level established during the initial or subsequent performance test.
- b. operating and maintaining each CPMS according to 40 CFR 63.7331(k) and recording all information needed to document conformance with these requirements.
- c. collecting and reducing monitoring data for pressure drop according to 40 CFR 63.7331(e)(1) through (3).

(33) [40 CFR 63.7342 (a)(1) through (3)]

The permittee must keep the records specified in a. through c. below.

- a. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
- b. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
- c. Records of performance tests, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

(34) [40 CFR 63.7342 (d)]

The permittee must keep the records required in §§63.7333 through 63.7335 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies.

(35) [40 CFR 63.7343 (a) through (c)]

- (a) The permittee must keep your records in a form suitable and readily available for expeditious review, according to §63.10(b)(1).



- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
  - (c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.
- (36) The permittee shall collect monthly composite samples of the coal charged in this emissions unit. The Permittee shall 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 primary conveyor belt that feeds batteries C and D 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; D6722-01 Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Direct Combustion Analysis; D6721-01 Standard Test Method for Determination of Chlorine 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.
- (37) The permittee shall maintain monthly records of the results of the analyses for sulfur content, mercury content, and chlorine content of the coal charged.
- (38) All bypass vent stacks shall be equipped with sensors that detect when the bypass stacks are open, or partially opened, either due to relieving system pressure or manual opening of the bypass vent stacks by the operator. These sensors shall be instrumented to the operator and an alarm sounded when there is stack gas flow to any of the by-pass vent stacks. The permittee shall record and maintain daily records for each bypass vent stack the time periods that there was flow through the bypass vent stack(s).
- (39) The permittee shall install, operate, and maintain a sorbent trap monitoring system (as defined in 40 CFR Part 72.2) to measure and record the concentration of mercury in the exhaust gas from the main stack according to the procedures of 40 CFR Part 75.15 and the following requirements.
- a. The sorbent traps used in the sorbent trap monitoring system (as defined in 40 CFR Part 72.2) shall be of sufficient size to collect samples for a minimum sampling duration of 7 days. The permittee shall replace the sorbent traps in the sorbent trap sampling system on a schedule that satisfies the performance



criteria in the Quality Assurance and Operating Procedures for Sorbent Trap Monitoring Systems in 40 CFR Part 75, Appendix K.

- b. The permittee shall calculate and record the mercury emission rate in pounds for each calendar month and pounds per rolling 12-month period using equations 1 and 2 below, except that for a particular pair of sorbent traps,  $C_h$  in equation 1 shall be the flow-proportional average Hg concentration measured over the data collection period.

(Equation 1)

$$E_h = K C_h Q_h t_h (1 - B_{ws})$$

Where:

- $E_h$  = Hg mass emissions for the hour, (lb)
- $K$  = Units conversion constant,  $6.24 \times 10^{-11}$  lb-scm/ $\mu$ g-scf
- $C_h$  = Hourly mercury concentration, dry basis,  $\mu$ g/dscm
- $Q_h$  = Hourly stack gas volumetric flow rate, (scfh)
- $t_h$  = Unit operating time, i.e., the fraction of the hour for which the unit operated
- $B_{ws}$  = Stack gas moisture content, expressed as a decimal fraction (e.g., for 8 percent H<sub>2</sub>O,  $B_{ws} = 0.08$ )

$$M = \sum_{h=1}^n E_h$$

(Equation 2)

Where:

- $M$  = total Hg mass emissions for the month
- $E_h$  = Hg mass emissions for hour "h", from Equation 1, lb
- $n$  = The number of unit operating hours in the month with valid sorbent trap monitoring system data

- c. The emissions data must be corrected for the stack gas moisture content. A certified continuous moisture monitoring system that meets the requirements of 40 CFR Part 75.11(b) is acceptable for this purpose. The permittee may use a default moisture value determined during the initial stack test with prior approval from Ohio EPA.
  - d. Annual RATA of sorbent trap monitoring systems shall be performed in accordance with appendices A and B of 40 CFR Part 75, and all other quality assurance requirements specified in appendix K to 40 CFR Part 75 shall be met for sorbent trap monitoring systems.
- (40) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall monitor continuously the mercury emissions from the main stack(or collect data at all required intervals) at all times that the emissions unit is operating.



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

- a. 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 semiannual monitoring report. The sorbent trap shall be changed out as soon as possible after weather conditions improve; and
  - b. The mercury sorbent trap monitoring plan shall include provisions for alternate trap change-out procedures in the event of adverse weather conditions that pose safety concerns for plant personnel.
- (41) The permittee may not use mercury continuous emissions sampling system data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities, in data averages and calculations used to report emissions or operating levels. The permittee shall use all data collected during all other periods in assessing the operation of the control device and associated control system.
- (42) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.
- (43) Prior to startup, the permittee shall prepare and submit to the Portsmouth Local Air Agency and Ohio EPA Central Office for approval a monitoring plan for the mercury sorbent trap monitoring system. The plan must address the requirements below.
- a. Installation of the sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., at or downstream of the last control device);
  - b. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;
  - c. Performance evaluation procedures and acceptance criteria (e.g., calibrations);
  - d. Ongoing operation and maintenance procedures in accordance with 40 CFR 60.13(d) or 40 CFR Part 75;
  - e. Ongoing data quality assurance procedures in accordance with 40 CFR 60.13 or 40 CFR Part 75; and
  - f. Ongoing recordkeeping and reporting procedures in accordance with 40 CFR Part 60, Subpart Da.



- (44) If continuous mercury emissions monitoring systems prove to reliably and accurately measure the mercury emissions from non-recovery coke ovens in the future, the permittee may switch from a Method 324 monitoring system to a continuous mercury emissions monitoring system, or Ohio EPA may require the permittee to install a continuous mercury emissions monitoring system.
- (45) Ohio EPA reserves the right to require the permittee to install a continuous opacity monitoring system on the main stack if Method 9 readings indicate that visible emissions are at a level near the allowable visible emission limitation. If Ohio EPA determines that a continuous opacity monitoring system is needed to assure compliance with the visible emission limitation, the permittee shall install an opacity monitoring system on the main stack within 90 days of notification by Ohio EPA that an opacity monitoring system is required to be installed. Prior to installation of an opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.
- (46) The permittee shall maintain monthly records of all the following information for all periods when waste gas emissions are vented to the HRSG bypass vent 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; and
  - d. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the HRSG bypass vent stack usage rates per stack.
- (47) The permittee shall install equipment to continuously monitor and record the activated carbon injection rate, in units of pounds per hour.
- (48) The permittee shall observe each coke oven door after charging and record the oven number of any door from which visible emissions occur. Emissions from coal spilled during charging or from material trapped within the seal area of the door are not considered to be a door leak if the permittee demonstrates that the oven is under negative pressure, and that no emissions are visible from the top of the door or from the dampers on the door.
- (49) Except as provided in (a) below, if a coke oven door leak is observed at any time during the coking cycle, the permittee shall take corrective action and stop the leak within 15 minutes from the time the leak is first observed. No additional leaks are allowed from doors on that oven for the remainder of that oven's coking cycle.
  - a. For no more than two times per battery in any semiannual reporting period, the permittee may take corrective action and stop the leak within 45 minutes (instead of 15 minutes) from the time the leak is first observed.



e) Reporting Requirements

- (1) The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the waste gas baghouse did not comply with the allowable range specified above.
- (2) The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across either charging baghouse did not comply with the allowable range specified above.
- (3) The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the pushing multiclone dust collector did not comply with the allowable range specified above.

The permittee shall submit semi-annual written reports which (a) list all inspections which identified an area of the hood and duct work needing repair, and (b) a description of the repairs completed.

- (4) The permittee shall submit deviation (excursion) reports which identify all exceedances of the daily wet coal usage rate limitation.
- (5) The permittee shall submit deviation (excursion) reports which identify all exceedances of the hourly charging/pushing rate limitation.
- (6) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month wet coal usage rate limitation.
- (7) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO<sub>2</sub> 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 Portsmouth Local Air Agency, documenting all instances of SO<sub>2</sub> emissions in excess of any applicable limit specified in this permit, 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 corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
  - b. These reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
    - i. the facility name and address;
    - ii. the manufacturer and model number of the continuous SO<sub>2</sub> 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 the 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 exceedance during the calendar quarter, as specified above;
  - v. the total SO<sub>2</sub> 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<sub>2</sub> monitoring system while the emissions unit was in operation;
  - viii. results and dates of quarterly cylinder gas audits;
  - ix. unless previously submitted, results and dates 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<sub>2</sub> 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<sub>2</sub> monitoring system, emissions unit, and/or control equipment;
  - xii. the date, time, and duration of any downtime\*\* of the continuous SO<sub>2</sub> monitoring system and/or control equipment while the emissions unit was in operation; 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.

\*where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

\*\* each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit; SO<sub>2</sub> monitoring system downtime attributed to main stack bypass events shall not be counted against the facility for enforcement purposes but must be reported.

- (8) The permittee shall submit common battery tunnel temperature deviation (excursion) reports that identify all periods of during which the temperature in the common battery tunnel did not comply with the allowable range specified above. These reports shall include the time of the temperature deviation, the duration of the exceedance and the corrective action taken.



(9) The permittee shall submit deviation (excursion) reports which identify all exceedances of the 0.41ton per year Lead emissions limitation.

(10) [40 CFR 63.310(d)]

In order for the provisions of term and condition d)(18). to apply with respect to the observation (or set of observations) for a particular day, notification of a startup, shutdown, or a malfunction shall be made by the permittee;

- a. if practicable, to the certified observer if the observer is at the facility during the occurrence; or
- b. to the enforcement agency, in writing, within 24 hours of the occurrence first being documented by a company employee, and if the notification was not made, an explanation of why no such notification was made.

(11) [40 CFR 63.310(e)]

Within 14 days of the original notification made under term and condition e)(10) or after a startup or shutdown, the permittee shall submit a written report to the Administrator, with a copy to the Portsmouth Local Air Agency that:

- a. describes the times and circumstances of the startup, shutdown, or malfunction;
- b. describes actions taken that might be considered inconsistent with the startup, shutdown, or malfunction plan.

(12) [40 CFR 63.311(b)]

The permittee shall provide a written statement(s) to certify compliance to the Administrator, with a copy to the Portsmouth Local Air Agency, within 45 days of the applicable compliance date for the emission limitations or requirements in 40 CFR Part 63, Subpart L. The permittee shall include the following information in the initial compliance certification:

- a. statement, signed by the permittee, certifying that a written startup, shutdown, and malfunction plan has been prepared as required in 40 CFR Part 63, Section 63.310.

(13) [40 CFR 63.311(c)]

The permittee shall provide written notification(s) to the Administrator of:

- a. intention to construct a new coke oven battery (including reconstruction of an existing coke oven battery and construction of a greenfield coke oven battery), including the anticipated date of startup.

(14) [40 CFR 63.311(d)]

The permittee shall include the following information in the semi-annual compliance certification:



- a. certification, signed by the permittee, that a startup, shutdown, or malfunction event did not occur for the coke oven battery during the reporting period or that a startup, shutdown, event did occur and a report was submitted according to the requirements in 40 CFR Part 63, Section 63.310(e); and,
  - b. certification, signed by the permittee, that work practices were implemented if applicable under 40 CFR 63.306.
- (15) The permittee shall submit semi-annual written reports which identify the date, time, and duration of each waste gas by-pass event.
  - (16) The deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.
  - (17) The permittee shall submit to the Portsmouth Local Air Agency quarterly common battery tunnel negative pressure deviation (excursion) reports that identify all periods of time during which each common battery tunnel was not maintained at a negative pressure. 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.
  - (18) The permittee shall submit to the Portsmouth Local Air Agency quarterly deviation (excursion) reports that identify all periods during which visual inspections of the enclosed flat push hot car 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 that 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.
  - (19) The permittee shall submit to the Portsmouth Local Air Agency quarterly reports concerning the quality and quantity of the coal burned 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.

- (20) The permittee shall submit to the Portsmouth Local Air Agency quarterly deviation (excursion) reports that identify all exceedances of the HRSG bypass vent stack usage limitations. 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.

(21) Reporting Requirements for Hg Sorbent Trap Monitoring System

The permittee shall submit quarterly reports to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of Hg values in excess of the applicable mercury emission limitations for the main stack under section A.I.1 for this emissions unit in units of pounds per rolling 12-month period. These reports shall also contain the total Hg emissions for each month and the rolling, 12-month summation of the monthly emissions.

The permittee shall submit reports to the Portsmouth Local Air Agency documenting any Hg sorbent trap monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the *sorbent trap monitoring system* while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the *sorbent trap monitoring system* while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

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 0.060 pound per hour from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Methods 12 or 29.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.



b. Emission Limitation:

HAPs (excluding HCl) emissions shall not exceed 0.0057 pound/ton coal from the waste gas stack.

Applicable Compliance Method:

The emission limitation was derived by the summation of the individual HAP pollutant pound per ton emission factors [Table 12.2-20 of Draft AP-42 Section 12.2 dated July, 2001] and HNCC test data.

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation:

HAPs (excluding HCl) emissions shall not exceed 6.43 tons per year from emission units P001, P002, P901 and P902, combined.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of i through iv below:

i. Waste Gas Stack: .

Compliance shall be demonstrated by multiplying the summation of the individual HAP pollutant pound per ton emission factors [Table 12.2-20 of Draft AP-42 Section 12.2 dated July, 2001] by the maximum annual coal charge rate (assuming 95% removal of metals except lead and mercury) divided by 2000 lbs/ton.

ii. Pushing Stack:

Compliance 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, (emission factors from October 1989 Jewell stack test) by the wet tons of coal charged per year divided by 2000 lbs per ton.

iii. Charging Baghouse:

Compliance shall be demonstrated 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 draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.



iv. Quench Towers:

Compliance 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. By-Pass Vent Stacks:

Compliance shall be demonstrated by multiplying the summation of the individual HAP pollutant pound per ton emission factors [Table 12.2-20 of Draft AP-42 Section 12.2 dated July, 2001] by the times the tons of coal charged per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 5 vent stacks divided by 2,000 lbs/ton.

d. Emission Limitation:

Visible particulate emissions from the waste gas 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 Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

e. Emission Limitation:

Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

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

f. Emission Limitation:

No visible emissions shall be permitted from the waste gas common duct or its associated piping.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 22 and the procedures and methods required in OAC rule 3745-17-03(B)(4).



g. Emission Limitation:

PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 30.69 pounds per hour from waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 51 Appendix M , Methods 201 and 202.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

h. Emission Limitation:

PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 134.43 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the PM/PM<sub>10</sub> emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM<sub>10</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

i. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 192.0 pounds per hour as a 3 hour block average from the waste gas stack (except during maintenance of the lime spray dryer and ancillary equipment (e.g. atomizer replacements)).

Applicable Compliance Method:

Compliance shall be demonstrated from the three hour average SO<sub>2</sub> emission rate obtained from the SO<sub>2</sub> continuous emissions monitor on the lime spray dryer for the coke oven battery waste gas exhaust.

j. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 700.80 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current months' emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by adding the SO<sub>2</sub> emissions rate in pounds/day for each day of the calendar month, as measured by the SO<sub>2</sub> continuous emissions monitor and dividing by 2,000 pounds/ton.



k. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 120.0 pounds per hour from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7E.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

l. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 438.0 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the NO<sub>x</sub> emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO<sub>x</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

m. Emission Limitation:

CO emissions shall not exceed 21.81 pounds per hour from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

n. Emission Limitation:

CO emissions shall not exceed 95.54 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the CO emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The CO



emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

o. Emission Limitation:

VOC emissions shall not exceed 4.67 pounds per hour from waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 25 or 25A, as appropriate.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

p. Emission Limitation:

VOC emissions shall not exceed 20.47 tons per year as a rolling, 12-month summation from the waste gas stack.

Applicable Compliance Method

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the VOC emission factor, in pounds/ton coal, times the tons of coal charged per month. The VOC emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

q. Emission Limitation:

Particulate emissions from the lime spray dryer baghouse exhaust shall not exceed 0.014 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 51, Appendix M, Methods 201 and 202.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

r. Emission Limitation:

1.6 pound of SO<sub>2</sub> / ton coal from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.



Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

s. Emission Limitation:

1 pound of NO<sub>x</sub> / ton coal from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

t. Emission Limitation:

20 ppm CO from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

u. Emission Limitation:

10 ppm VOC from waste gas stack

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 25 or 25A, as appropriate.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

v. Emission Limitation:

Fugitive PM emissions shall not exceed 3.89 pounds per hour from charging.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.027 pounds/ton coal charged times the maximum tons of wet coal charged per hour



times the capture factor of 0.3 (70% capture rate). The PM emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

w. Emission Limitation:

Fugitive PM emissions shall not exceed 3.55 tons per year from charging.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.027 pounds/ton coal charged times the maximum tons of wet coal charged per year times the capture factor of 0.3 (70% capture rate), divided by 2,000 pounds/ton. The PM emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

x. Emission Limitation:

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

Applicable Compliance Method:

The permittee shall conduct a performance test each week to demonstrate compliance this opacity limit. The permittee shall conduct each performance test according to the procedures and requirements in paragraphs (i)(a) through (iii) of below.

Using a certified observer, determine the average opacity of five consecutive charges per week for each charging emissions capture system if charges can be observed according to Method 9 (40 CFR Part 60, Appendix A), except as specified in paragraphs (a) and (b) below.

- (a) Instead of the procedures in section 2.4 of Method 9 (40 CFR Part 60, Appendix A), record observations to the nearest 5 percent at 15-second intervals for at least five consecutive charges.
- (b) Instead of the procedures in section 2.5 of Method 9 (40 CFR Part 60, Appendix A), determine and record the highest 3-minute block average opacity for each charge from the consecutive observations recorded at 15-second intervals.
  - ii. Opacity observations are to start when the door is removed for charging and end when the door is replaced.
  - iii. Using the observations recorded from each performance test, the certified observer shall compute and record the average of the five 3-minute block averages.



y. Emission Limitation:

Filterable PM/PM<sub>10</sub> emissions shall not exceed 0.0081 pound per ton of dry coal charged from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

z. Emission Limitation:

PM/PM<sub>10</sub> emissions shall not exceed 3.3 tons per year as a rolling, 12-month summation from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the PM emission factor, in pounds / ton dry coal, times the tons coal charged per month. The PM emission factor was obtained from 40 CFR Part 63, Subpart L, section 63.303(d)(2), dated April 15, 2005.

aa. Emission Limitation:

Fugitive PM<sub>10</sub> emissions shall not exceed 1.17 pounds per hour from charging.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.027 pounds/ton coal charged, times the tons of wet coal charged per hour by the capture factor of 0.3 (70% capture rate) by 0.30 the fraction of TSP estimated to be by PM<sub>10</sub>. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

bb. Emission Limitation:

Fugitive PM<sub>10</sub> emissions shall not exceed 1.06 tons per year as a rolling, 12-month summation from charging.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the emission factor of 0.027 pounds/ton coal charged, times the tons of wet coal charged per month by the capture factor of 0.3 (70% capture rate) by 0.30 the fraction of TSP estimated to be by PM<sub>10</sub>, divided



by 2,000 pounds/ton. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

cc. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.144 pound per hour from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0003 pounds/ton wet coal charged, times the tons of wet coal charged per hour. The SO<sub>2</sub> emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

dd. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.13 ton per year as a rolling, 12-month summation from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the emission factor of 0.0003 pounds/ton wet coal charged, times the tons of wet coal charged per month, divided by 2,000 pounds/ton. The SO<sub>2</sub> emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

ee. Emission Limitation:

CO emissions shall not exceed 1.34 pounds per hour from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0028 pounds/ton wet coal charged times the wet tons of coal charged per hour. The SO<sub>2</sub> emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

ff. Emission Limitation:

CO emissions shall not exceed 1.23 tons per year as a rolling, 12-month summation from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions



shall be determined by multiplying the emission factor of 0.0028 pound/ton wet coal charged, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The CO emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

gg. Emission Limitation:

VOC emissions shall not exceed 0.96 pound per hour from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0020 lb VOC/wet ton coal charged, times the wet tons of coal charged per hour. The VOC emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

hh. Emission Limitation:

VOC emissions shall not exceed 0.88 ton per year as a rolling, 12-month summation from the charging baghouse.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the emission factor of 0.0020 lb VOC/wet ton coal charged, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The VOC emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

ii. Emission Limitation:

Filterable particulate emissions from the charging baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall also be demonstrated in accordance with the requirements of 40 CFR, Part 60, Appendix A, Methods 1 through 5.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

jj. Emission Limitation:

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 Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

kk. Emission Limitation:

Visible particulate emissions of fugitive dust from pushing operations shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

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

ll. Emission Limitation:

Filterable PM/PM<sub>10</sub> emissions shall not exceed 13.72 pounds per hour from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

mm. Emission Limitation:

Filterable PM/PM<sub>10</sub> emissions shall not exceed 12.53 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the PM/PM<sub>10</sub> emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM<sub>10</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

nn. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 24 pounds per hour from the flat push hot car vented to multiclone dust collector.



Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

oo. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 28.8 pounds per hour as a 3 hour block average from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged for a three hour averaging period. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

pp. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 21.90 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the SO<sub>2</sub> emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The SO<sub>2</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

qq. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 7.68 pounds per hour from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.



Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

rr. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 7.01 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the NO<sub>x</sub> emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO<sub>x</sub> emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

ss. Emission Limitation:

CO emissions shall not exceed 36.96 pounds per hour from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

tt. Emission Limitation:

CO emissions shall not exceed 33.73 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the CO emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The CO emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

uu. Emission Limitation:

VOC emissions shall not exceed 96.0 pounds per hour from the flat push hot car vented to multiclone dust collector.



Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton wet coal charged, times the maximum tons of wet coal charged per hour. The emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

vv. Emission Limitation:

VOC emissions shall not exceed 87.60 tons per year as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method

Compliance shall be demonstrated by adding the current month's emissions to the emissions for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the VOC emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The VOC emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

ww. Emission Limitation:

Filterable particulate emissions from the flat push hot car vented to multiclone dust collector exhaust shall not exceed 0.04 lb PM<sub>10</sub> / ton of coke.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

xx. Emission Limitation:

0.05 pound of SO<sub>2</sub> / ton coal from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.



yy. Emission Limitation:

0.016 pound of NO<sub>x</sub> / ton coal from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

zz. Emission Limitation:

0.077 pound of CO / ton coal from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

aaa. Emission Limitation:

0.2 pound of VOC / ton coal from the flat push hot car vented to multiclone dust collector.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 25 or 25A, as appropriate.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

bbb. Emission Limitation:

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).



ccc. Emission Limitation:

Lead emissions shall not exceed 0.41ton per year for emissions units P901, P902, P001, and P002 combined.

Applicable Compliance Method:

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

i. waste gas stack

Compliance shall be demonstrated by adding the current month's emissions to the emission for the preceding eleven calendar months. 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

Compliance shall be demonstrated by adding the current month's emissions to the emission for the preceding eleven calendar months. Monthly emissions shall be determined by multiplying the lead emission factor of 0.0000001 pounds/ton, times the wet tons of coal charged per month, divided by 2,000 pounds/ton. The lead emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

iii. Pushing

Compliance shall be demonstrated by adding the current month's emissions to the emission for the preceding eleven calendar months. 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 towers

Compliance shall be demonstrated by adding the current month's emissions to the emission for the preceding eleven calendar months. 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.



v. by-pass vent stacks:

Compliance shall be demonstrated by multiplying the lead pound per ton emission factors [Table 12.2-20 of Draft AP-42 Section 12.2 dated July, 2001] by the times the tons of coal charged per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 10 vent stacks divided by 2,000 lbs/ton.

ddd. Emission Limitation:

0 percent leaking coke oven doors, or ovens operated under a negative pressure.

Applicable Compliance Method:

Compliance shall be demonstrated by the monitoring/recordkeeping requirements in section d)(10) of this permit.

eee. Emission Limitation:

Lead emissions shall not exceed 0.30 pound per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 12 or 29.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

fff. Emission Limitation:

HAPs (excluding HCl) emissions shall not exceed 0.031 pound / ton coal from a single HRSG by-pass vent stack.

Applicable Compliance Method:

The emissions limit was derived from calculating the summation of the individual HAP pollutants lb/ton emission factors obtained from the draft AP-42, Section 12.2, Table 12.2-20, dated July 2001 and HNCC test data.

ggg. Emission Limitation:

PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 35.57 pounds per hour from a single HRSG by-pass vent stack.



Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 51 Appendix M, Methods 201 and 202. The HRSG bypass vent stack testing is only required on one of the ten bypass vent stacks.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

The emission limit was derived by multiplying the grains of PM/PM<sub>10</sub> per dscf of 0.083 times the maximum flow rate of the waste gas vented multiplied by an estimated 20% of total gas vented times 60 minutes per hour divided by 7000 grains per lb. The PM/PM<sub>10</sub> emission estimate was obtained from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10 /1989.

hhh. Emission Limitation:

PM/PM<sub>10</sub> (filterable and condensable) emissions shall not exceed 34.15 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

The annual emission limit was determined by multiplying the hourly emission limit from a single HRSG bypass vent stack times the number of allowable bypass hours (1,920) divided by 2,000 pounds per ton.

iii. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 480.0 pounds per hour as a 3 hour block average from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the SO<sub>2</sub> emission factor of 20 pounds/ton times the tons of coal charged per hour multiplied by an estimated 20% of total gas venting. The SO<sub>2</sub> emission factor was derived using a material balance based on data from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10 /1989 and assuming a coal sulfur content of 1.3%.

jjj. Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 384.0 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

The emission limit was derived by multiplying the SO<sub>2</sub> emission factor of 20 pounds/ton times the tons of coal charged of 2,400 tons per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 10 vent stacks divided by 2,000 lbs/ton. The SO<sub>2</sub> emission factor was derived using a material balance based on data from a stack test at the Jewell Coal and



Coke Company in Vansant, VA in 10 / 1989 and assuming a coal sulfur content of 1.3%.

kkk. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 24.0 pounds per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NO<sub>x</sub> emission factor of 1 pound/ton times the tons of coal charged per hour multiplied by an estimated 20% of total gas venting. The NO<sub>x</sub> emission factor was obtained from a EPA stack test data at Jewell Coke Co. dated September 1992.

lll. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 19.20 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

The emission limit was derived by multiplying the NO<sub>x</sub> emission factor of 1 pound/ton times the tons of coal charged of 2,400 tons per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 10 vent stacks divided by 2,000 lbs/ton. The NO<sub>x</sub> emission factor was obtained from a EPA stack test data at Jewell Coke Co. dated September 1992.

mmm. Emission Limitation:

CO emissions shall not exceed 4.36 pounds per hour from a single HRSG by-pass vent stacks.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the CO emission factor of 20 ppm, times 28, the molecular weight of CO, divided by the 385,100,000 conversion factor, times the maximum waste gas flow, in dscf/min, times 60 minutes/hour, times 0.20, the fraction of the total waste gas produced expected to be vented from any single by-pass stack.

nnn. Emission Limitation:

CO emissions shall not exceed 4.19 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the CO emission factor of 20 ppm, times 28, the molecular weight of CO, divided by the 385,100,000 conversion factor, times the maximum waste gas flow, in dscf/min, times 60



minutes/hour, times 0.20, the fraction of the total waste gas produced expected to be vented from any single by-pass stack, times the total hours/year of all by-pass events, divided by 2,000 pounds/ton.

ooo. Emission Limitation:

VOC emissions shall not exceed 0.93 pound per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the VOC 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, in dscf/min, times 60 minutes/hour, times 0.20, the fraction of the total waste gas produced expected to be vented from any single by-pass stack.

ppp. Emission Limitation:

VOC emissions shall not exceed 0.90 ton per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the VOC 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, in dscf/min, times 60 minutes/hour, times 0.20, the fraction of the total waste gas produced expected to be vented from any single by-pass stack, times the total hours/year of all by-pass events, divided by 2,000 pounds/ton.

qqq. Emission Limitation:

HCl emissions shall not exceed 0.10 pound of HCl / ton coal and 12.06 pounds per hour from the waste gas stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 26.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

rrr. Emission Limitation:

HCl emissions shall not exceed 44.02 tons per year from the waste gas stack.



Applicable Compliance Method

Compliance shall be demonstrated by multiplying the HCl emission factor, in lb/ton coal, times the tons of coal charged per year, divided by 2,000 pounds/ton. The HCl emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

sss. Emission Limitation:

HCl emissions shall not exceed 2.01 pound of HCl / ton coal and 48.24 pounds per hour from a single HRSG by-pass vent stack.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 26.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

ttt. Emission Limitation:

HCl emissions shall not exceed 38.59 tons per year from all HRSG by-pass vent stacks combined for P901 and P902.

Applicable Compliance Method:

The emission limit was derived by multiplying the HCl emission factor of 2.01 pound/ton times the tons of coal charged per day multiplied by an estimated 20% of total waste gas venting times 8 days of venting per year times the 10 vent stacks divided by 2,000 lbs/ton. The HCl emission factor was obtained from stack test data at Haverhill Coke Company dated June 2005.

uuu. Emission Limitation:

Mercury emissions shall not exceed 0.008 pound per hour and 6.34 pounds per rolling 12-month period from all HRSG by-pass vent stacks combined for P902.

Applicable Compliance Method:

Compliance shall be determined in accordance with the requirements of 40 CFR Part 60, Appendix A, Methods 1 through 4 and 29. An alternative method may be employed if approved by Ohio EPA.

Compliance testing will be conducted in accordance with the requirements specified in the initial Title V permit.

The emission limit was derived by utilizing the emission factor in Draft Chapter 12.2 (Coke Production) Air Pollutant Emission Factor, AP-42 Fifth Edition, Volume 1:  $3.3 \times 10^{-4}$  Emission data from EPA testing conducted at Jewell facility in Vansant, Virginia.



(Max production of 480 tons per day x  $(3.3 \times 10^{-4})$  x 1.2 (process flow variation) / 24 hours = 0.008 lbs/hr

$(480 \text{ tons per day} \times 8 \text{ days} \times 5 \text{ stacks} \times (3.3 \times 10^{-4})) = 6.34 \text{ lbs/yr}$

vvv. Emission Limitation:

Mercury emissions shall not exceed 0.01 pound per hour from the waste gas stack, as a 30-day average.

Applicable Compliance Method:

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

www. Emission Limitation:

Mercury emissions shall not exceed 55.5 pounds per year from the waste gas stack.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.