



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: FINAL PERMIT TO INSTALL MODIFICATION

CERTIFIED MAIL

SCIOTO COUNTY

Application No: 07-00511

Y	TOXIC REVIEW
Y	PSD
Y	SYNTHETIC MINOR
Y	CEMS
CCCCC	MACT
Y	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 6/11/2004

Haverhill North Coke Company
Christopher Allen
1111 Northshore Dr
Knoxville, TN 37919

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

PCHD



Permit To Install
Terms and Conditions

Issue Date: 6/11/2004
Effective Date: 6/11/2004

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 07-00511

Application Number: 07-00511

APS Premise Number: 0773000182

Permit Fee: **\$7825**

Name of Facility: Haverhill North Coke Company

Person to Contact: Christopher Allen

Address: 1111 Northshore Dr
Knoxville, TN 37919

Location of proposed air contaminant source(s) [emissions unit(s)]:

**NW corner Gallia Pike & Ironton Ave
Haverhill, Ohio**

Description of proposed emissions unit(s):

Administrative modification to replace the pushing operations with shed vented to a baghouse with flat pushing operations.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping 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:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. 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:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. 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 appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., 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.
- iv. 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.

2. 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 appropriate Ohio EPA District Office or local air agency 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).

3. 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.

4. 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.

5. Severability Clause

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.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, 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, reopening 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.

7. 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 this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. 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:
 - i. 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.
 - ii. 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.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. 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 appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. 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.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is

granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. 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 appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., 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.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

6. 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.

7. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
	Phase I/Phase II
PM/PM₁₀ (stack)	309.78 / 1155.39
PM (fugitive)	12.5 / 48.49
PM₁₀ (fugitive)	4.6 / 16.53
SO₂	592.27 / 1629.88
NO_x	461.81 / 1780.04
CO	134.16 / 521.98
VOC	109.74 / 435.82
Lead	0.122 / 0.256

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

1. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M. Street, SW (MC-113do)
Washington, DC 20460

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

Ambient Air Monitoring for Particulate Matter 10 Microns and Smaller in Diameter (PM_{10}), Sulfur Dioxide (SO_2) and Periodic Sampling for Hazardous Air Pollutants (HAPS)

The permittee shall establish and operate ambient PM_{10} , SO_2 , 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_{10} , SO_2 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 PM₁₀ or SO₂ samplers meeting the reference methods specified in 40 CFR Parts 50 and 53 with the additional requirement that each particulate (PM₁₀) instrument shall be equipped with a continuous flow meter (recording transducer), unless the instrument uses volumetric flow control.

PM₁₀ Operation

The permittee shall operate one of the PM₁₀ 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:

1. 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.
2. The flow rate of each PM₁₀ sampler shall be calibrated after every 500 hours of operation and after any instance of major repair or maintenance.
3. 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.

The PM₁₀ monitoring network shall be in operation at least six months prior to plant start up.

Sulfur Dioxide Instrument Operation

The SO₂ 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.

The SO₂ monitoring network shall be in operation at least six months prior to plant start up.

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 and Method TO-13 (The Determination of Benzo(a)pyrene [B(a)P] and other Polynuclear Aromatic Hydrocarbons (PAHs) in Ambient Air Using Gas Chromatographic (GC) and High Performance Liquid Chromatographic (HPLC) Analysis). 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 44 compounds as provided for by Method TO-15. Those compounds include:

METHOD TO-15 (VOCS)*

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	Methyl ethyl ketone
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
19	Benzyl chloride+	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
24	Chloroethane (ethyl chloride)	50	Vinyl bromide
25	Chloroform	51	Xylene (mixed)
26	Chloromethane (methyl chloride)		

Method TO-13 sampling will include the follow PAHs and any other coke oven emission HAP detectable by TO-13:

Acenaphthen

Benzo(e)pyrene

Fluorene

Acenaphthylene

Benzo(g,h,i)perylene

Indeno(1,2,3-cd)pyrene

Anthracene

Benzo(k)fluoranthene

Naphthalene

Benzo(a)anthracene	Dibenzo(a,h)anthracene	Phenanthrene
Benzo(a)pyrene	Fluoranthene	Pyrene
Benzo(b)fluoranthene	Chrysene	

The HAP monitoring network shall be in operation at least six months prior to plant start up.

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 PM₁₀ 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 PM₁₀ and SO₂ monitors and precision checks performed at least bi-weekly on the SO₂ 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:

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

PM ₁₀ Collocated	15 / 24 hr. sampler 1-in-6 day sampler	12
HAP	10 / 24 hr. samples	5

* depending on the number of hours per quarter

Reporting Requirements for the PM₁₀, SO₂ 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 PM₁₀, 3-hour and/or 24-hour SO₂ short-term NAAQS standards.

Continued Operation

The permittee shall continue to operate the PM₁₀ and SO₂ ambient monitoring network as described in the permit condition for at least five years after commence of operation. The HAPs monitoring network shall continue operation at least two years after commencement of operation at the facility. The permittee can then request the Director to examine the ambient air quality data collected by the permittee's HAPs and criteria pollutant ambient monitoring network to determine if further ambient monitoring is necessary. The Director shall have at least one year to make a decision on the need for continued operation of the monitoring network. In determining the further need for the continued operation of the monitoring network, the Director shall consider the concentrations measured by the monitors, the trends in air quality concentrations, and the value of the air quality data in fulfilling the goals and requirements of the federal Clean Air Act and Chapter 3704 of the Ohio Revised Code.

Ohio EPA Air Toxics Policy

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	TLV ($\mu\text{g}/\text{m}^3$)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground-Level Concentration ($\mu\text{g}/\text{m}^3$)	MAGLC ($\mu\text{g}/\text{m}^3$)
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Pollutant: arsenic

TLV (Ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr):

Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3):

MAGLC (Ug/m3): 0.238

Pollutant: benzene

TLV (Ug/m3): 32,000

Maximum Hourly Emission Rate (lbs/hr):

Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3):

MAGLC (Ug/m3): 762

Pollutant: mercury

TLV (Ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr):

Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3):

MAGLC (Ug/m3): 0.238

Pollutant: naphthalene

TLV (Ug/m3): 52,000

Maximum Hourly Emission Rate (lbs/hr):

Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3):

MAGLC (Ug/m3): 1,240

Pollutant: phosphorus

TLV (Ug/m3): 100

Maximum Hourly Emission Rate (lbs/hr):

Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3):

MAGLC (Ug/m3): 2.38

Pollutant: toluene

TLV (Ug/m3): 188,000

Maximum Hourly Emission Rate (lbs/hr):

Predicted 1-Hour Maximum Ground-Level Concentration (Ug/m3):

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:

- a. the change is not otherwise considered a “modification” under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
- c. 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.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Paved roadways and parking areas	OAC rule 3745-31-05(A)(3)	<p>Phase I 2.68 TPY fugitive PM</p> <p>Phase II 5.36 TPY fugitive PM</p> <p>Phase I and II There shall be no visible particulate emissions except for 1 minute during any 60-minute period.</p> <p>Phase I and II best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See sections A.I.2.c through A.I.2.h)</p> <p>Phase I 0.52 TPY PM₁₀</p> <p>Phase II 1.04 TPY PM₁₀</p>
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	

2. Additional Terms and Conditions

- 2.a The paved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

Phase I - paved roadways:

Battery D
Coke and Coal Handling

Phase II - paved roadways:

Batteries A, B, C and D
Coke and Coal Handling

Phase I and II - paved parking areas:

Main Gate Parking Area

- 2.b** The permittee shall employ best available control measures on all paved roadways and parking areas 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 paved roadways and parking areas by sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c** The permittee shall employ best available control measures on the unpaved shoulders of all paved roadways 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 unpaved shoulders of all paved roadways with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.d** The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved roadway or parking area 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. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- 2.e** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- 2.f** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

- 2.g Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of the paved roadways and parking areas in accordance with the following frequencies:

Phase I - paved roadways	minimum inspection frequency
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Battery D	Daily
Coal and Coke Handling	Daily

Phase II - paved roadways	minimum inspection frequency
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Batteries A, B, C, and D	Daily
Coal and Coke Handling	Daily

Phase I and II - paved parking areas	minimum inspection frequency
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Main Gate Parking	Daily
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- 2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area 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. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
- 3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or 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.
- 4. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c. the dates the control measures were implemented; and,
- d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

IV. 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.
- 2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit

V. Testing Requirements

- 1. Compliance with the emission limitation(s) in Section B.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation: **Phase I**

2.68 TPY fugitive PM

Applicable Compliance Method:

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

- i. Multiply the vehicle miles traveled (VMT) per year for light duty gasoline vehicles times the 0.07 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.

- ii. Multiply the vehicle miles traveled (VMT) per year for heavy duty gasoline vehicles times the 0.90 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.
- iii. Multiply the vehicle miles traveled (VMT) per year for heavy duty diesel vehicles times the 9.12 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.

The particulate emission factors were calculated AP-42 Section 13.2.1, Equation (1), dated 1-95. The control efficiency was obtained from RACM, Table 2.1.1-3, dated 10/80.

Phase I emissions limitations were established assuming 35,000 VMT light duty gasoline vehicles, 15,000 VMT heavy duty gasoline vehicles, and 600 VMT heavy duty diesel vehicles.

b. Emission Limitation: **Phase II**

5.36 TPY fugitive PM

Applicable Compliance Method:

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

- i. Multiply the vehicle miles traveled (VMT) per year for light duty gasoline vehicles times the 0.07 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.
- ii. Multiply the vehicle miles traveled (VMT) per year for heavy duty gasoline vehicles times the 0.90 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.
- iii. Multiply the vehicle miles traveled (VMT) per year for heavy duty gasoline vehicles times the 9.12 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.

Phase II emissions limitations were established assuming 50,000VMT light duty gasoline vehicles 25,000 VMT heavy duty gasoline vehicles, and 1,850 VMT heavy duty diesel vehicles.

The particulate emission factors were calculated AP-42 Section 13.2.1, Equation (1), dated 1-95. The control efficiency was obtained from RACM, Table 2.1.1-3, dated 10/80.

c. Emission Limitation:

There shall be no visible particulate emissions except for 1 minute during any 60-minute period.

Applicable Compliance Method:

Compliance with the emission limitation for the paved roadways and parking areas 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)(d) of OAC rule 3745-17-03.

d. Emission Limitation: **Phase I**

0.52 TPY fugitive PM₁₀

Applicable Compliance Method:

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

- i. Multiply the vehicle miles traveled (VMT) per year for light duty gasoline vehicles times the 0.01 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.
- ii. Multiply the vehicle miles traveled (VMT) per year for heavy duty gasoline vehicles times the 0.18 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.
- iii. Multiply the vehicle miles traveled (VMT) per year for heavy duty gasoline vehicles times the 1.78 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.

The particulate emission factors were calculated AP-42 Section 13.2.1, Equation (1), dated 1-95. The control efficiency was obtained from RACM, Table 2.1.1-3, dated 10/80.

Phase I emissions limitations were established assuming 35,000 VMT/year light duty gasoline vehicles, 15,000 VMT/year heavy duty gasoline vehicles, and 600 VMT heavy duty diesel vehicles.

d. Emission Limitation: **Phase II**

1.04 TPY fugitive PM₁₀

Applicable Compliance Method:

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

- i. Multiply the vehicle miles traveled (VMT) per year for light duty gasoline vehicles times the 0.01 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.
- ii. Multiply the vehicle miles traveled (VMT) per year for heavy duty gasoline vehicles times the 0.18 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.
- iii. Multiply the vehicle miles traveled (VMT) per year for heavy duty gasoline vehicles times the 1.78 pounds/VMT emission factor times 0.25, assuming a 75% control efficiency for sweeping the roads, and divide by 2,000 pounds/ton.

The particulate emission factors were calculated AP-42 Section 13.2.1, Equation (1), dated 1-95. The control efficiency was obtained from RACM, Table 2.1.1-3, dated 10/80.

Phase II emissions limitations were established assuming 50,000 VMT/year light duty gasoline vehicles, 25,000 VMT/year heavy duty gasoline vehicles, and 1,850 VMT heavy duty diesel vehicles.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Paved roadways and parking areas	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - Coal and coke storage piles	OAC rule 3745-31-05(A)(3)	<p>Phase I 1.56 TPY fugitive PM</p> <p>Phase II 1.94 TPY fugitive PM</p> <p>Phase I and II There shall be no visible emissions except for 3 minutes in any hour.</p> <p>Phase I and II best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See sections A.I.2.c, A.I.2.d and A.I.2.e)</p> <p>Phase I and II There shall be no visible emissions except for 3 minutes in any hour</p> <p>Phase I and II best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See sections A.I.2.e through A.I.2.g)</p> <p>Phase I and II The requirements of this rule also include compliance with OAC rules 3745-31-10 through 20.</p>
load-in and load-out of storage piles (See section A.I.2.b for identification of storage piles)		
wind erosion of storage piles (See section A.I.2.b for identification of storage piles)		

40 CFR Part 52.21 and
 OAC rule 3745-31-10 through 20

Phase I
 0.77 TPY fugitive PM₁₀

Phase II
 0.93 TPY fugitive PM₁₀

2. Additional Terms and Conditions

2.a This permit allows for the construction and operation of the emissions unit in two phases:

Phase I will consist of a one acre open coal storage pile (load-in by stacking conveyor and load-out by under pile gravity feed to a conveyor), a one acre enclosed coal storage pile (load-in by conveyor and load-out by under pile gravity feed to a conveyor), and a one acre open coke storage pile (load-in by conveyor and load-out by front end loader) .

Phase II will consist of a two acre enclosed coal storage pile (load-in by stacking tube and load-out by under pile gravity feed to a conveyor) and a two acre open coke storage pile (load-in by stacking tube and load-out by front end loader).

2.b 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)

2.c 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	Phase I	stacking conveyor and water sprays	under pile gravity feed to conveyor
enclosed coal pile		dome enclosure and water sprays	under pile gravity feed to conveyor
open coke pile		conveyor	front end loader

enclosed coal pile	Phase II	dome enclosure and water sprays	under pile gravity feed to conveyor
open coke pile		conveyor	front end loader

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

- 2.d** 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.
- 2.e** 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 , dome enclosure and watering of enclosed coal storage pile and watering and enclosing the open coal storage pile with a dome enclosure at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.f** 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.
- 2.g** 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.

II. Operational Restrictions

None

III. 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

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

storage pile identification minimum load-out inspection frequency

All Daily

3. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

storage pile identification minimum wind erosion inspection frequency

All Daily

4. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.

6. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or 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.

7. The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and,

- d. on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in 7.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

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

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation: **Phase I**

1.56 TPY fugitive PM

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.

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 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

Multiply the maximum tons of coal handled per year times the 0.0010 pound/ton emission factor times 0.30 assuming a 70% control efficiency for watering the pile before and/or 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:

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 watering the pile before and/or 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.

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 watering the pile

before and/or 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.

iv. coke pile load-in

Open:

Multiply the maximum tons of coal 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.

v. coke 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 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:

Multiply the maximum tons of coal 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.

b. Emission Limitation: **Phase II**

1.94 TPY fugitive PM

Applicable Compliance Method:

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

i. coal pile load-in

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 for the

stacking tube and pile 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.

ii. coal pile wind erosion

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 the pile 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

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 the under pile gravity feed to 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:

Multiply the maximum tons of coal handled per year times the 0.00129 pound/ton particulate emission factor times 0.30 assuming a 70% 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.

v. coke pile wind erosion

Open:

Multiply the maximum area of the coke storage pile, 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:

Multiply the maximum tons of coal handled per year times the 0.00129 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.

c. Emission Limitation: **Phase I and Phase II**

There shall be no visible emissions except for 3 minutes in any hour.

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.

d. Emission Limitation: **Phase I**

0.77 TPY fugitive PM₁₀

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 PM₁₀ 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 PM₁₀ 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 PM₁₀ 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 0.30 assuming a 70% control efficiency for watering the pile before and/or during load-out, 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 watering the pile before and/or 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.

iv. coke pile load-in

Open:

Multiply the maximum tons of coal 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.

v. coke 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 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:

Multiply the maximum tons of coal 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

e. Emission Limitation: **Phase II**

0.93 TPY fugitive PM₁₀

Applicable Compliance Method:

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

i. coal pile load-in

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 pile enclosure, and divide by 2,000 pounds per ton. The PM₁₀ 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

Multiply the maximum area of the coal storage pile, in acres, times 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 pile enclosure and divide by 2,000 pounds per ton. The PM₁₀ 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

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 under pile gravity feed to conveyor, and divide by 2,000 pounds per ton. The PM₁₀ 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:

Multiply the maximum tons of coal 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.

- v. coke 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 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:

Multiply the maximum tons of coal 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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - Coal and coke storage piles	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 - Coal handling processing and transfer	OAC rule 3745-31-05(A)(3)	<p>Phase I 2.29 TPY fugitive PM</p> <p>Phase II 4.82 TPY fugitive PM</p> <p>Phase I and II Visible particulate emissions shall not exceed 20% opacity, as a 3-minute average.</p> <p>Phase I and II best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See sections A.I.2.c through A.I.2.e)</p> <p>Phase I and II The requirements of this rule also include compliance with 40 CFR Part 52.21, 40 CFR Part 60, Subpart Y and OAC rule 3745-31-10 through 20.</p>
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	<p>Phase I 1.10 TPY fugitive PM₁₀ as a rolling, 12-month summation</p> <p>Phase II</p>

40 CFR Part 60, Subpart Y

2.26 TPY fugitive PM₁₀ as a rolling, 12-month summation

There shall be no visible particulate emissions of fugitive dust of 20% opacity or greater from any coal processing and conveying equipment, or coal transfer and loading system processing coal.

2. Additional Terms and Conditions

2.a This permit allows for the construction and operation of the emissions unit in two phases:

Phase I will consist of a rail car bottom dumping station and 10 belt conveyor transfer points (7 controlled with enclosure and wet suppression and 3 uncontrolled) and coal screening and crushing.

Phase II will consist of a rail car bottom dumping station and 16 belt conveyor transfer points (10 controlled with enclosure and wet suppression and 6 uncontrolled) and coal screening and crushing.

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

coal unloading via rail car bottom dumping
coal conveying via belt conveyor
coal transfer points via belt conveyor to belt conveyor

2.c 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)
Phase I - rail car bottom dumping	enclosure and wet suppression
Phase II - rail car bottom dumping	enclosure and wet suppression
Phase I - belt conveyors and transfer points (10 belt conveyor to belt conveyor) and coal screening crushing	enclosure and wet suppression (7) none (3)

Phase II - belt conveyors and transfer enclosure and wet suppression (10)
points (16 belt conveyor to belt conveyor) none (6)

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

2.d 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.

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

II. Operational Restrictions

1. Phase I

The maximum annual wet coal usage rate for this emissions unit shall not exceed 876,000 based upon a rolling, 12-month summation of the wet coal usage rates.

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

Month	Maximum Allowable Cumulative Production
1	73,000
1-2	146,000
1-3	219,000
1-4	292,000
1-5	365,000
1-6	438,000
1-7	511,000
1-8	584,000
1-9	657,000
1-10	730,000
1-11	803,000
1-12	876,000

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

2. **Phase II**

The maximum annual wet coal usage rate for this emissions unit shall not exceed 3,504,000 based upon a rolling, 12-month summation of the wet coal usage rates.

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

Month	Maximum Allowable Cumulative Production
1	292,000
1-2	584,000
1-3	876,000
1-4	1,168,000
1-5	1,460,000
1-6	1,752,000
1-7	2,044,000
1-8	2,336,000
1-9	2,628,000
1-10	2,920,000
1-11	3,212,000
1-12	3,504,000

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

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The wet coal usage rate for each month.
 - b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the wet coal usage rates.

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

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

material handling operation(s)	minimum inspection frequency
Battery #A oven coal conveyors	daily
Battery #B oven coal conveyors	daily
Battery #C oven coal conveyors	daily

Battery #D oven coal conveyors 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.

IV. Reporting Requirements

1. Pursuant to the NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
 - a. Construction date (no later than 30 days after such date);
 - b. Anticipated start up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days of such date); and
 - d. Date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
Lazarus Government Center
P. O. Box 1049
Columbus, Ohio 43216-1049

and

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

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. The deviation reports shall be submitted in accordance with the reporting requirements of Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation: **Phase I**

2.29 TPY fugitive PM

Applicable Compliance Method:

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

- i. coal railcar unloading:

Multiply the maximum tons of coal unloaded per year, times the 0.001 pound/ton emission factor times 0.30, assuming a 70% control efficiency for wet suppression and 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.

- ii. coal transfer points with enclosure and wet suppression:

Multiply the maximum tons of coal handled per year, times 7, the number of transfer points, times the 0.001 pound/ton emission factor times 0.05, assuming a 95% control efficiency for enclosed transfer points and wet suppression, 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.

- iii. uncontrolled coal transfer points:

Multiply the maximum tons of coal handled per year, times 3, the number of transfer points, times the 0.001 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.

- iv. coal screening/crushing with enclosure and wet suppression:

Multiply the maximum tons of coal handled per year, times 1, the number of transfer points, times the 0.16 pound/ton emission factor times 0.01, assuming a 99% control efficiency for enclosed transfer points and wet suppression, 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 AP-40 and Ohio RACM.

- b. Emission Limitation: **Phase II**

4.82 TPY fugitive PM

Applicable Compliance Method:

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

- i. coal railcar unloading

Multiply the maximum tons of coal unloaded per year, times the 0.001 pound/ton emission factor times 0.30, assuming a 70% control efficiency for wet suppression and 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.

- ii. coal transfer points with enclosure and wet suppression

(1) Multiply the maximum tons of coal handled per year times 8, the number of transfer points, times the 0.001 pound/ton emission factor times 0.05,

assuming a 95% control efficiency for enclosed transfer points and wet suppression, and divide by 2,000 pounds per ton.

- (2) Multiply the maximum tons of coal handled per year times 0.5, for transfer points that handle 50% of the total throughput, times 2, the number of transfer points, times the 0.001 pound/ton emission factor times 0.05, assuming a 95% control efficiency for enclosed transfer points and wet suppression, 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.

iii. uncontrolled coal transfer points

- (1) Multiply the maximum tons of coal handled per year times 0.5, for transfer points that handle 50% of the total throughput, times 2, the number of transfer points, times the 0.001 pound/ton emission factor and divide by 2,000 pounds per ton.
- (2) Multiply the maximum tons of coal handled per year times 0.25, for transfer points that handle 25% of the total throughput, times 4, the number of transfer points, times the 0.001 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.

c. Emission Limitation: **Phase I and II**

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements of OAC rule 3745-17-03(B)(3).

d. Emission Limitation: **Phase I**

1.10 TPY fugitive PM₁₀ as a rolling, 12-month summation

Applicable Compliance Method:

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

i. coal railcar unloading

Multiply the maximum tons of coal unloaded per month, times the 0.00047 pound/ton emission factor times 0.30, assuming a 70% control efficiency for wet suppression and enclosure, and divide by 2,000 pounds per ton. The PM_{10} 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. coal transfer points with enclosure and wet suppression

Multiply the maximum tons of coal handled per month, times 7, the number of controlled transfer points, times the 0.00047 pound/ton emission factor times 0.05, assuming a 95% control efficiency for enclosed transfer points and wet suppression, and divide by 2,000 pounds per ton. The PM_{10} 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.

iii. uncontrolled coal transfer points

Multiply the maximum tons of coal handled per month, times 3, the number of uncontrolled transfer points, times the 0.00047 pound/ton emission factor and divide by 2,000 pounds per ton. The PM_{10} emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95.

iv. coal sizing with enclosure and wet suppression:

Multiply the maximum tons of coal handled per year, times 1, the number of transfer points, times the 0.08 pound/ton emission factor times 0.01, assuming a 99% control efficiency for enclosed transfer points and wet suppression, 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 AP-40 and Ohio RACM.

e. Emission Limitation: **Phase II**

2.26 TPY fugitive PM_{10} as a rolling, 12-month summation

Applicable Compliance Method:

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

i. coal railcar unloading

Multiply the maximum tons of coal unloaded per month, times the 0.00047 pound/ton emission factor times 0.30, assuming a 70% control efficiency for wet suppression and enclosure, and divide by 2,000 pounds per ton. The PM₁₀ emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

ii. coal transfer points with enclosure and wet suppression

(1) Multiply the maximum tons of coal handled per month times 8, the number of transfer points, times the 0.00047 pound/ton emission factor times 0.05, assuming a 95% control efficiency for enclosed transfer points and wet suppression, and divide by 2,000 pounds per ton.

(2) Multiply the maximum tons of coal handled per month times 0.5, for transfer points that handle 50% of the total throughput, times 2, the number of transfer points, times the 0.00047 pound/ton emission factor times 0.05, assuming a 95% control efficiency for enclosed transfer points and wet suppression, and divide by 2,000 pounds per ton.

The PM₁₀ emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95. The control efficiency was obtained from RACM, Table 2.2.1-2, dated 10/80.

iii. uncontrolled coal transfer points

(1) Multiply the maximum tons of coal handled per month times 0.5, for transfer points that handle 50% of the total throughput, times 2, the number of transfer points, times the 0.00047 pound/ton emission factor and divide by 2,000 pounds per ton.

(2) Multiply the maximum tons of coal handled per month times 0.25, for transfer points that handle 25% of the total throughput, times 4, the number of transfer points, times the 0.00047 pound/ton emission factor and divide by 2,000 pounds per ton.

The PM₁₀ emission factor was calculated from AP-42 5th Edition, Section 13.2.4, Equation (1) dated 1/95.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 - Coal handling processing and transfer	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F004 - Coke and breeze handling and processing	OAC rule 3745-31-05(A)(3)	<p>Phase I and II Emissions of PM/PM₁₀ from the crushing/screening baghouse shall not exceed 3.09 pounds per hour.</p> <p>Phase I 2.42 TPY fugitive PM</p> <p>Phase II 7.99 TPY fugitive PM</p> <p>Phase I and II Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.</p> <p>Phase I and II The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21, OAC rule 3745-17-07 and 3745-31-10 through 20.</p>
	OAC rule 3745-17-07(A)(1)	<p>Phase I and II Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.</p>
	OAC rule 3745-17-11	<p>Phase I and II The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>

40 CFR Part 52.21 and
OAC rule 3745-31-10 through 20

Phase I and II

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

Phase I and II

Particulate emissions from the crushing/screening baghouse shall not exceed 13.53 TPY PM/PM₁₀ as a rolling, 12-month summation.

Phase I

1.15 TPY fugitive PM₁₀ as a rolling, 12-month summation

Phase II

3.78 TPY fugitive PM₁₀ as a rolling, 12-month summation

2. Additional Terms and Conditions

2.a This permit allows for the construction and operation of the emissions unit in two phases:

Phase I consists of a crusher and screen controlled by a baghouse, 8 enclosed transfer points, 4 uncontrolled transfer points, and coke load-out to railcar and/or barge with partial enclosure.

Phase II consists of a crusher and screening station controlled by a baghouse, 13 enclosed transfer points, 4 uncontrolled transfer points, and coke load-out to railcar and/or barge with partial enclosure.

2.b 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 barges
coke conveying via belt conveyor
coke transfer points (belt conveyor to belt conveyor and crusher to belt conveyor)

2.c 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 and barges	partial enclosure
coke conveying via belt conveyors	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.

2.d 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.

2.e 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.

II. 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.

III. 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:

material handling operation(s)	minimum inspection frequency
coke loading of railcars and barges	daily
coke conveying via belt conveyors	daily
coke transfer points (belt conveyor to belt conveyor and crusher to belt conveyor)	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.

IV. 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 Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Emission testing requirements

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

- a. The emission testing for Phase I shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of Phase I of the emissions unit. The emission testing for Phase II shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of Phase II of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM emissions limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

A particulate emissions test shall also be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for the emission unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR Part 60, Appendix A, shall be employed.

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

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to

ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

2. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation: **Phase I and II**

Emissions of PM/PM₁₀ from the crushing/screening baghouse shall not exceed 3.09 pounds per hour.

Applicable Compliance Method:

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

b. Emission Limitation: **Phase I**

2.42 TPY fugitive PM

Applicable Compliance Method:

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

i. enclosed coke transfer points

(1) Multiply the maximum tons of coke handled per year times 3, 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.

(2) Multiply the maximum tons of coke handled per year times 0.5, for transfer points that handle 50% of the total throughput, times 5, 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 4, 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.

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/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: **Phase II**

7.99 TPY fugitive PM

Applicable Compliance Method:

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

i. enclosed coke transfer points

(1) Multiply the maximum tons of coke handled per year times 7, 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.

- (2) Multiply the maximum tons of coke handled per year times 0.5, for transfer points that handle 50% of the total throughput, times 1, 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.
- (3) Multiply the maximum tons of coke handled per year times 0.25, for transfer points that handle 25% of the total throughput, times 5, 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 0.5, for transfer points that handle 50% of the total throughput, times 4, 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.

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/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.

d. Emission limitation: **Phase I and II**

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).

e. Emission Limitation: **Phase I and II**

Visible particulate emissions from any 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).

f. Emission Limitation: **Phase I and II**

0.008 gr/dscf of exhaust gases from the coke crushing/screening 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 and the procedures and methods required in OAC rule 3745-17-03(B)(10).

g. Emission Limitation: **Phase I and II**

Particulate emissions from the crushing/screening baghouse shall not exceed 13.53 TPY PM/PM₁₀ 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/PM₁₀ 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/PM₁₀ emission factor shall be calculated from the results of the most recent stack test which demonstrated compliance.

h. Emission Limitation: **Phase I**

1.15 TPY fugitive PM₁₀ 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
 - (1) Multiply the maximum tons of coke handled per month times 3, 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.
 - (2) Multiply the maximum tons of coke handled per month times 0.5, for transfer points that handle 50% of the total throughput, times 5, 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_{10} 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 4, 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_{10} 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 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 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/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 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.

i. Emission Limitation: **Phase II**

3.78 TPY fugitive PM_{10} as a rolling, 12-month summation

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

- (1) Multiply the maximum tons of coke handled per month times 7, 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.
- (2) Multiply the maximum tons of coke handled per month times 0.5, for transfer points that handle 50% of the total throughput, times 1, 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.
- (3) Multiply the maximum tons of coke handled per month times 0.25, for transfer points that handle 25% of the total throughput, times 5, 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_{10} 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 0.5, for transfer points that handle 50% of the total throughput, times 4, 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_{10} 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 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 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/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 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.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F004 - Coke and breeze handling and processing	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Quench Tower for C and D Batteries	OAC rule 3745-31-05(A)(3)	<p>Phase I and II 0.0028 lb/hr Lead 0.0006 lb HAPs/ton coal 0.274 lb/hr HAPs</p> <p>Phase I 2.2 tpy HAPs for emission units P001 and P901, combined</p> <p>Phase II 13.7 tpy HAPs for emission units P001, P002, P901 and P902, combined</p> <p>Phase I and II The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20.</p> <p>Phase I 216.00 lbs/hr PM 197.10 tpy PM as a rolling, 12-month summation 24.00 lbs/hr PM₁₀ 21.90 tpy PM₁₀ as a rolling, 12-month summation</p> <p>Phase II 216.00 lbs/hr PM</p>
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	

<p>OAC rule 3745-17-07(A)</p> <p>OAC rule 3745-31-05(D)</p> <p>40 CFR Part 63, Subpart CCCCC</p>	<p>394.20 tpy PM as a rolling, 12-month summation 24.00 lbs/hr PM₁₀ 43.80 tpy PM₁₀ as a rolling, 12-month summation</p> <p>Phase I and II 0.05 lb PM₁₀ / ton coal See sections A.I.2.b and A.I.2.c below.</p> <p>Phase I and II Visible particulate emissions from the quench tower shall not exceed 20% opacity as a 6-minute average, except as provided by rule.</p> <p>Phase I and II See sections A.I.2.d .</p> <p>See section A.I.2.e below.</p>
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2. Additional Terms and Conditions

- 2.a** This permit allows for the operation of this emissions unit in two phases. During Phase I this emissions unit will quench the coke produced from Battery D. During Phase II, this emissions unit will quench the coke produced from Batteries C and D.
- 2.b** The concentration of the total dissolved solids (TDS) of the water employed to quench coke at each quench tower shall not exceed 1100 milligrams per liter (mg/L).
- 2.c** Compliance with OAC rules 3745-31-05 , 3745-31-15 and 40 CFR Part 52.21 shall be demonstrated by a TDS concentration limit of 1100 mg/L and the operation and maintenance of an interior baffle system with coverage of not less than ninety-five per cent of the cross-sectional area of the tower.
- 2.d** Lead emissions shall not exceed 0.52 tons per year as a rolling, 12-month summation for emissions units P901, P902, P001, and P002 combined.
- 2.e** [40 CFR 63.7295 (a)(1)(i) or (ii)]
The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L).

II. Operational Restrictions

1. The permittee shall operate and maintain an interior baffle system for the quench tower. The interior baffle system shall be designed and maintained in accordance with good engineering practice and provide coverage of not less than 95% of the cross-sectional area of the tower.
2. The permittee shall employ clean quench water with a TDS concentration of equal to or less than 1100 mg/l of water during the coke quenching operation. The permittee shall achieve compliance with the TDS quench water limitation by using only river water or non-contact cooling water for quenching.
3. [40 CFR 63.7295 (a)(2)]
The permittee shall use acceptable makeup water for quenching.

[40 CFR 63.7352]
Acceptable makeup water means surface water from a river, lake, or stream; water meeting drinking water standards; storm water runoff and production area clean up water ; process wastewater treated to meet effluent limitations guidelines in 40 CFR part 420; water from any of these sources that has been used only for non-contact cooling or in water seals.
4. [40 CFR 63.7295 (b)(1)]
The permittee shall equip each quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky.
5. [40 CFR 63.7295 (b)(2)]
The permittee shall wash the baffles in each quench tower once each day that the tower is used to quench coke, except as provided in A.II.3.a & b.
 - a. the permittee is not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30 degrees Fahrenheit throughout that day (24-hour period). If the measured ambient temperature rises to 30 degrees Fahrenheit or more during the day, you must resume daily washing according to the schedule in your operation and maintenance plan.
 - b. the permittee shall continuously record the ambient temperature on days that the baffles were not washed.
6. [40 CFR 63.7295 (b)(3)]
The permittee shall inspect each quench tower monthly for damaged or missing baffles and blockage.
7. [40 CFR 63.7295 (b)(4)]
The permittee shall initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall wash the baffle system on a daily basis. The permittee shall inspect the baffle system on a monthly basis for damaged or missing baffles and blockage. The permittee shall repair or replace all damaged or missing baffles before the next scheduled inspection.
2. The permittee shall collect a weekly sample of the water employed in each quench tower which shall be analyzed for concentration of total dissolved solids.

OAC rule 3745-17-03(10)(c) says use section 209(C) "Standard Methods for the Examination of Water and Wastewater," fifteenth edition using a drying temperature between 103 and 105 degrees Celsius. five samples / week / tower either composite or test each and average

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify (1) each day when the baffles were not washed as required and (2) each repair to the baffle system that was not completed by the next scheduled monthly inspection.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the concentration of TDS of the quench water did not comply with the TDS requirements specified above.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 0.256 tons per year as a rolling 12-month summation Lead emissions limitation.
4. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation: **Phase I and II**

0.0028 lb/hr Lead

Applicable Compliance Method:

Compliance shall be demonstrated by analysis of the quench water for HAPs, in accordance with U.S. EPA approved test methods.

b. Emission Limitation: **Phase I and II**

0.0006 lb HAPs/ton coal

0.274 lb/hr HAPs

Applicable Compliance Method:

Compliance shall be demonstrated by analysis of the quench water for HAPs, in accordance with U.S. EPA approved test methods.

c. Emission Limitation: **Phase I**

2.2 tpy HAPs for emission units P001 and P901, combined

Applicable Compliance Method:

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

- i. Waste Gas Stack: Compliance shall be determined by multiplying the lbs total combined HAPS / wet ton coal charged from the Waste Gas exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the wet tons of coal charged per year divided by 2000 lbs/ton.
- ii. By-Pass Vent Stack: Compliance shall be determined by multiplying the lbs total combined HAPS / wet ton coal charged from the By-Pass Vent Stack exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the wet tons of coal charged per year 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.
- iv. Charging Baghouse D: 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.
- v. 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.

d. Emission Limitation: **Phase II**

13.7 tpy HAPs for 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 determined by multiplying the lbs total combined HAPS / wet ton coal charged from the Waste Gas exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the wet tons of coal charged per year 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 D: 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.

e. Emission Limitation: **Phase I and II**

0.05 lb PM₁₀ / ton coal

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the TDS concentration limit of 1100 mg/L and baffles which provide coverage of not less than 95% of the cross sectional area of the tower. The PM₁₀ emission limitation was calculated from AP-42 5th Edition, Section 12.2, Tables 12.2-2 and 12.2-4 (the PM emission factor for quenching with baffles and clean water is 0.54 lb PM/ton coal charged and 9.8% of PM is PM₁₀).

f. Emission Limitation: **Phase I and II**

216.00 lbs/hr PM

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.450 pounds per ton times the maximum wet tons of coal charged per hour. The particulate emission factor was determined based on the following equation from Ed Wojocieczowski, U. S. EPA, Region 5:

$$y = 0.000115x + 0.323$$

where:

y = lbs PM/wet ton coal, and

x = total dissolved solids (TDS) concentration of quench water (mg/L)

g. Emission Limitation: **Phase I and II**

24.00 lbs/hr PM₁₀

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.05 lb PM₁₀/wet ton coal charged times the maximum wet tons of coal charged per hour. The PM₁₀ emission factor was obtained from AP-42 5th Edition, Section 12.2, Tables 12.2-2 and 12.2-4 (the PM emission factor for quenching with baffles and clean water is 0.54 lb PM/ton coal charged and 9.8% of PM is PM₁₀).

h. Emission Limitation: **Phase I**

197.10 TPY PM as a rolling, 12-month summation

Applicable Compliance Method:

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 emission factor of 0.450 pounds per ton times the maximum wet tons of coal charged per month, and divide by 2,000 pounds/ton. The particulate emission factor was determined based on the following equation from Ed Wojocieczowski, U. S. EPA, Region 5:

$$y = 0.000115x + 0.323$$

where:

y = lbs PM/wet ton coal, and

x = total dissolved solids concentration of quench water (mg/L)

i. Emission Limitation: **Phase I**

21.90 tpy PM₁₀ as a rolling, 12-month summation

Applicable Compliance Method:

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 PM₁₀ emission factor of 0.05 pounds/ton coal charged, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM₁₀ emission factor was obtained from AP-42 5th Edition, Section 12.2, Tables 12.2-2 and 12.2-4 (the PM emission factor for quenching with baffles and clean water is 0.54 lb PM/ton coal charged and 9.8% of PM is PM₁₀).

j. Emission Limitation: **Phase II**

394.20 tpy PM as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be demonstrated by

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 emission factor of 0.450 pounds per ton times the maximum wet tons of coal charged per month, and divide by 2,000 pounds/ton. The particulate emission factor was determined based on the following equation from Ed Wojciechowski, U. S. EPA, Region 5:

$$y = 0.000115x + 0.323$$

where:

y = lbs PM/wet ton coal, and

x = total dissolved solids concentration of quench water (mg/L)

k. Emission Limitation: **Phase II**

43.80 tpy PM₁₀ as a rolling, 12-month summation

Applicable Compliance Method:

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 PM₁₀ emission factor of 0.05 pounds/ton coal charged, times the tons of coal

charged per month, divided by 2,000 pounds/ton. The PM₁₀ emission factor was obtained from AP-42 5th Edition, Section 12.2, Tables 12.2-2 and 12.2-4 (the PM emission factor for quenching with baffles and clean water is 0.54 lb PM/ton coal charged and 9.8% of PM is PM₁₀).

l. Emission Limitation: **Phase I and II**

Visible particulate emissions from each quench tower shall not exceed 20 percent 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 methods and procedures required in OAC rule 3745-17-03(B)(1).

m. Emission Limitation: **Phase I and II**

TDS less than 1100 mg/L

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(10)(c).

n. Emission Limitation: **Phase I and II**

[40 CFR 63.7295 (a)(1)(i)]

The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L).

Applicable Compliance Method:

[40 CFR 63.7325(a)(1)]

Take the quench water sample from a location that provides a representative sample of the quench water as applied to the coke (e.g., from the header that feeds water to the quench tower reservoirs). Conduct sampling under normal and representative operating conditions.

[40 CFR 63.7325(a)(2)]

Determine the TDS concentration of the sample using Method 160.1 in 40 CFR part 136.3 (see 'residue - filterable'), except that you must dry the total filterable residue at 103 °C (degrees Centigrade) instead of 180 °C.

o. Emission Limitation:

Lead emissions shall not exceed 0.52 tons 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.

vi. 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

VI. Miscellaneous Requirements

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Haverhill North Coke Company

PTI Application: **07-00511**

Modification Issued: 6/11/2004

Facility ID: **0773000182**

Emissions Unit ID: P001

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Quench Tower for C and D Batteries		Compliance with OEPA Air Toxics Policy; see Part II, term B.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - Quench Tower for A and B Batteries	OAC rule 3745-31-05(A)(3)	0.0028 lb/hr and 0.0006 lb HAPs/ton coal 0.274 lb/hr and 13.7 tpy HAPs for emission units P001, P002, P901 and P902, combined
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20. 216.00 lbs/hr PM 394.20 tpy PM as a rolling, 12-month summation 24.00 lbs/hr PM ₁₀ 43.80 tpy PM ₁₀ as a rolling, 12-month summation
	OAC rule 3745-17-07(A)	0.05 lb PM ₁₀ / ton coal See sections A.I.2.b and A.I.2.c below.
	OAC rule 3745-31-05(D)	Visible particulate emissions from the quench tower shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-31-05(D)	See sections A.I.2.c.
	40 CFR Part 63, Subpart CCCCC	See section A.I.2.d below.

2. **Additional Terms and Conditions**

- 2.a The concentration of the total dissolved solids (TDS) of the water employed to quench coke at each quench tower shall not exceed 1100 milligrams per liter (mg/L).
- 2.b Compliance with OAC rules 3745-31-05 and 3745-31-15 and 40 CFR Part 52.21 shall be demonstrated by a TDS concentration limit of 1100 mg/L and the operation and maintenance of an interior baffle system with coverage of not less than ninety-five per cent of the cross-sectional area of the tower.
- 2.c Lead emissions shall not exceed 0.52 ton per year as a rolling, 12-month summation for emissions units P901, P902, P001, and P002 combined.
- 2.d [40 CFR 63.7295 (a)(1)(i) or (ii)]
The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L).

II. **Operational Restrictions**

- 1. The permittee shall operate and maintain an interior baffle system for the quench tower. The interior baffle system shall be designed and maintained in accordance with good engineering practice and provide coverage of not less than 95% of the cross-sectional area of the tower.
- 2. The permittee shall employ clean quench water with a TDS concentration of equal to or less than 1100 mg/l of water during the coke quenching operation. The permittee shall achieve compliance with the TDS quench water limitation by using only river water or non-contact cooling water for quenching.
- 3. [40 CFR 63.7295 (a)(2)]
The permittee shall use acceptable makeup water for quenching.

[40 CFR 63.7352]
Acceptable makeup water means surface water from a river, lake, or stream; water meeting drinking water standards; storm water runoff and production area clean up water ; process wastewater treated to meet effluent limitations guidelines in 40 CFR part 420; water from any of these sources that has been used only for non-contact cooling or in water seals.
- 4. [40 CFR 63.7295 (b)(1)]
The permittee shall equip each quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky.

5. [40 CFR 63.7295 (b)(2)]

The permittee shall wash the baffles in each quench tower once each day that the tower is used to quench coke, except as provided in A.II.3.a & b.

 - a. the permittee is not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30 degrees Fahrenheit throughout that day (24-hour period). If the measured ambient temperature rises to 30 degrees Fahrenheit or more during the day, you must resume daily washing according to the schedule in your operation and maintenance plan.
 - b. the permittee shall continuously record the ambient temperature on days that the baffles were not washed.
6. [40 CFR 63.7295 (b)(3)]

The permittee shall inspect each quench tower monthly for damaged or missing baffles and blockage.
7. [40 CFR 63.7295 (b)(4)]

The permittee shall initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall wash the baffle system on a daily basis. The permittee shall inspect the baffle system on a monthly basis for damaged or missing baffles and blockage. The permittee shall repair or replace all damaged or missing baffles before the next scheduled inspection.
2. The permittee shall collect a weekly sample of the water employed in each quench tower which shall be analyzed for concentration of total dissolved solids.

OAC rule 3745-17-03(10)(c) says use section 209(C) "Standard Methods for the Examination of Water and Wastewater," fifteenth edition using a drying temperature between 103 and 105 degrees Celsius. five samples / week / tower either composite or test each and average

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify (1) each day when the baffles were not washed and (2) each repair to the baffle system that was not completed by the next scheduled monthly inspection.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the concentration of TDS of the quench water did not comply with the TDS requirements specified above.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 0.256 tons per year as a rolling 12-month summation Lead emissions limitation.

4. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

0.0028 lb/hr Lead

Applicable Compliance Method:

Compliance shall be demonstrated by analysis of the quench water for HAPs, in accordance with U.S. EPA approved test methods.

- b. Emission Limitation:

0.0006 lb HAPs/ton coal

0.274 lb/hr HAPs

Applicable Compliance Method:

Compliance shall be demonstrated by analysis of the quench water for HAPs, in accordance with U.S. EPA approved test methods.

- c. Emission Limitation:

13.7 tpy HAPs for 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 determined by multiplying the lbs total combined HAPS / wet ton coal charged from the Waste Gas exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the wet tons of coal charged per year 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 D: 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.

d. Emission Limitation:

0.05 lb PM₁₀ / ton coal

Applicable Compliance Method:

Compliance shall be demonstrated by compliance with the TDS concentration limit of 1100 mg/L and baffles which provide coverage of not less than 95% of the cross sectional area of the tower. The PM₁₀ emission limitation was calculated from AP-42 5th Edition, Section 12.2, Tables 12.2-2 and 12.2-4 (the PM emission factor for quenching with baffles and clean water is 0.54 lb PM/ton coal charged and 9.8% of PM is PM₁₀).

e. Emission Limitation:

216.00 lbs/hr PM

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.450 pounds per ton times the maximum wet tons of coal charged per hour. The particulate emission factor was determined based on the following equation from Ed Wojocichowski, U. S. EPA, Region 5:

$$y = 0.000115x + 0.323$$

where:

y = lbs PM/wet ton coal, and

x = total dissolved solids (TDS) concentration of quench water (mg/L)

f. Emission Limitation:

24.00 lbs/hr PM₁₀

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.05 lb PM₁₀/wet ton coal charged times the maximum wet tons of coal charged per hour. The PM₁₀ emission factor was obtained from AP-42 5th Edition, Section 12.2, Tables 12.2-2 and 12.2-4 (the PM emission factor for quenching with baffles and clean water is 0.54 lb PM/ton coal charged and 9.8% of PM is PM₁₀).

g. Emission Limitation:

394.20 TPY PM as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be demonstrated by

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 emission factor of 0.450 pounds per ton times the maximum wet tons of coal charged per month, and divide by 2,000 pounds/ton. The particulate emission factor was determined based on the following equation from Ed Wojciechowski, U. S. EPA, Region 5:

$$y = 0.000115x + 0.323$$

where:

y = lbs PM/wet ton coal, and

x = total dissolved solids concentration of quench water (mg/L)

h. Emission Limitation:

43.80 TPY PM₁₀ as a rolling, 12-month summation

Applicable Compliance Method:

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 PM₁₀ emission factor of 0.05 pounds/ton coal charged, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM₁₀ emission factor was obtained from AP-42 5th Edition, Section 12.2, Tables 12.2-2 and 12.2-4 (the PM emission factor for quenching with baffles and clean water is 0.54 lb PM/ton coal charged and 9.8% of PM is PM₁₀).

i. Emission Limitation:

Visible particulate emissions from each quench tower shall not exceed 20 percent 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 methods and procedures required in OAC rule 3745-17-03(B)(1).

j. Emission Limitation:

TDS less than 1100 mg/L

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(10)(c).

k. Emission Limitation:

[40 CFR 63.7295 (a)(1)(i)]

The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L).

Applicable Compliance Method:

[40 CFR 63.7325(a)(1)]

Take the quench water sample from a location that provides a representative sample of the quench water as applied to the coke (e.g., from the header that feeds water to the quench tower reservoirs). Conduct sampling under normal and representative operating conditions.

[40 CFR 63.7325(a)(2)]

Determine the TDS concentration of the sample using Method 160.1 in 40 CFR part 136.3 (see 'residue - filterable'), except that you must dry the total filterable residue at 103 to 105 °C (degrees Centigrade) instead of 180 °C.

l. Emission Limitation:

Lead emissions shall not exceed 0.52 tons 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.

vi. 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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - Quench Tower for A and B Batteries		Compliance with OEPA Air Toxics Policy; see Part II, term B.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>P901 - Phase I: 100 oven nonrecovery coke battery (D battery) and Phase II: additional 100 oven nonrecovery coke battery (B battery)</p> <p>waste gas from coking process with a lime spray dryer, baghouse, and staged combustion</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Phase I (D battery)</p> <p>0.060 lb/hr Lead from the waste gas stack</p> <p>0.0048 lb HAPs / ton coal from the waste gas stack</p> <p>2.30 lbs/hr HAPs from the waste gas stack</p> <p>0.30 lb/hr lead from the by-pass vent stacks (VS1-VS5)</p> <p>0.024 lb HAPS / ton coal from the by-pass vent stacks (VS1-VS5)</p> <p>2.20 lbs/hr HAPs from the by-pass vent stacks (VS1-VS5))</p> <p>See section A.I.2.o below</p> <p>Phase II (D and B batteries)</p> <p>0.15 lb/hr Lead from the waste gas stack</p> <p>0.0048 lb HAPs / ton coal from the waste gas stack</p> <p>17.02 lbs/hr HAPs from the waste gas stack</p> <p>See section A.I.2.p below</p>

OAC rule 3745-31-10 through 20

Phase I and II

Visible particulate emissions from the waste gas exhaust stack(s) shall not exceed 10% opacity as a 6-minute average.

Phase I and II

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

Phase I and II

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

Phase I and II

The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through 20.

Phase I (D battery)

17.14 lbs/hr PM/PM₁₀ from the waste gas stack

75.09 tpy PM/PM₁₀ as a rolling, 12-month summation from the waste gas stack

422.40 lbs/hr SO₂ from the waste gas stack

506.88 lbs/hr SO₂ as a 3 hour average from the waste gas stack

385.44 tpy SO₂ as a rolling, 12-month summation from the waste gas stack

480.0 lbs/hr NOx from the waste gas stack

438.0 tpy NOx as a rolling, 12-month summation from the waste gas stack

21.81 lbs/hr CO from the waste gas stack

95.54 tpy CO as a rolling, 12-month summation from the waste gas stack

4.67 lbs/hr VOC from the waste gas stack

20.47 tpy VOC as a rolling, 12-month summation from waste gas stack

12.86 lbs/hr PM/PM₁₀ from the by-pass vent stacks (VS1-VS5)

10.80 tpy PM/PM₁₀ from the by-pass vent stacks (VS1-VS5)

1056 lbs/hr SO₂ from the by-pass vent stacks (VS1-VS5)

1267.2 lbs/hr SO₂ as a 3 hour average from the by-pass vent stacks (VS1-VS5)

184.80 tpy SO₂ from the by-pass vent stacks (VS1-VS5)

96 lbs/hr NO_x from the by-pass vent stacks (VS1-VS5)

16.80 tpy NO_x from the by-pass vent stacks (VS1-VS5)

4.36 lbs/hr CO from the by-pass vent stacks (VS1-VS5)

3.66 tpy CO from the by-pass vent stacks (VS1-VS5)

0.93 lb/hr VOC from the by-pass vent stacks (VS1-VS5)

0.79 tpy VOC from the by-pass vent stacks (VS1-VS5)

See section A.I.2.k below.

Phase II (D and B batteries)

34.29 lbs/hr PM/PM₁₀ from the waste gas stack

150.17 tpy PM/PM₁₀ as a rolling, 12-month summation from the waste gas stack

422.40 lbs/hr SO₂ from the waste gas stack

506.88 lbs/hr SO₂ as a 3 hour average from the waste gas stack

770.88 tpy SO₂ as a rolling, 12-month summation from the waste gas stack

480 lbs/hr NO_x from the waste gas stack

876 tpy NO_x as a rolling, 12-month summation from the waste gas stack

43.63 lbs/hr CO from the waste gas stack

191.08 tpy CO as a rolling, 12-month summation from the waste gas stack

9.35 lbs/hr VOC from the waste gas stack

40.95 tpy VOC as a rolling, 12-month summation from waste gas stack

Phase I and II

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

Phase I and II

0.88 lb SO₂ / ton coal from the waste gas stack

		1 lb NOx / ton coal from the waste gas stack 20 ppm CO from the waste gas stack 10 ppm VOC from the waste gas stack See section A.I.2.b below.
	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).
	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).
	OAC rule 3745-18-06(E)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-23-06(B)	See section A.I.2.d below.
	OAC rule 3745-21-08(B)	See section A.I.2.e below.
	OAC rule 3745-31-05(D)	See sections A.I.2.f.
	40 CFR Part 63, Subpart L	See sections A.I.2.g, A.I.2.h, and A.I.2.i below.
charging operations with traveling hood(s) and baghouse(s)	OAC rule 3745-31-05(A)(3)	Phase I (D battery) 0.000048 lb/hr lead from the charging baghouse 0.000112 lb HAPs / ton coal from the charging baghouse 0.0536 lb/hr HAPs from the charging baghouse See section A.I.2.o below Phase II (D and B batteries) 0.000048 lb/hr lead from each charging baghouse

OAC rule 3745-31-10 through 20

0.000112 lb HAPs / ton coal from each charging baghouse
0.1072 lb/hr HAPs from each charging baghouse

See section A.I.2.p below

Phase I and II

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.

Phase I and II

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

Phase I (D battery)

0.80 lb/hr PM/PM₁₀ from charging baghouse D
0.73 tpy PM/PM₁₀ as a rolling, 12-month summation from charging baghouse D
3.89 lbs/hr fugitive PM from charging
3.55 tpy fugitive PM from charging
1.17 lbs/hr fugitive PM₁₀ from charging
1.06 tpy fugitive PM₁₀ as a rolling, 12-month summation from charging
0.14 lb/hr SO₂ from charging baghouse D
0.13 tpy SO₂ as a rolling, 12-month summation from charging baghouse D
1.34 lbs/hr CO from charging baghouse D
1.23 tpy CO as a rolling, 12-month summation from charging baghouse D
0.96 lb/hr VOC from charging baghouse D
0.88 tpy VOC as a rolling, 12-month summation from charging baghouse D

Phase II (D and B batteries)

0.80 lb/hr PM/PM₁₀ from each charging baghouse (D and B)
0.73 tpy PM/PM₁₀ as a rolling, 12-month summation from each charging baghouse (D and B)
7.78 lbs/hr fugitive PM from charging

14.19 tpy fugitive PM from charging
2.33 lbs/hr fugitive PM₁₀ from charging
4.26 tpy fugitive PM₁₀ as a rolling, 12-month summation from charging
0.144 lb/hr SO₂ from each charging baghouse (D and B)
0.13 tpy SO₂ as a rolling, 12-month summation from each charging baghouse (D and B)
1.34 lbs/hr CO from each charging baghouse (D and B)
1.23 tpy CO as a rolling, 12-month summation from each charging baghouse (D and B)
0.96 lb/hr VOC from each charging baghouse (D and B)
0.88 tpy VOC as a rolling, 12-month summation from each charging baghouse (D and B)

Phase I and II

Particulate emissions from each charging baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases.
See section A.I.2.b below.

Phase I and II

0.0003 lb SO₂ / ton coal from each charging baghouse (D and B)
0.0028 lb CO / ton coal from each charging baghouse (D and B)
0.002 lb VOC / ton coal from each charging baghouse (D and B)

Phase I and II

Visible particulate emissions from the charging baghouse stacks shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-07(A)(1)

OAC rule 3745-17-11(B)

OAC rule 3745-21-08(B)

See section A.I.2.e below.

pushing operations with a flat push hot car (FPHC) vented to multiclone dust collector

administrative modification to replace the pushing operations baghouse and shed with flat car pushing with a mobile hood and with a multiclone

OAC rule 3745-31-05(D)

40 CFR Part 63, Subpart L

OAC rule 3745-31-05(A)(3)

OAC rule 3745-31-10 through 20

See sections A.I.2.f .

See sections A.I.2.g, A.I.2.h, and A.I.2.i below.

Phase I (D battery)

0.0072 lb/hr Lead from the flat push hot car (FPHC) vented to multiclone dust collector

0.000239 lb HAPs /ton coal from the flat push hot car (FPHC) vented to multiclone dust collector

0.115 lb/hr HAPs from the flat push hot car (FPHC) vented to multiclone dust collector

See section A.I.2.o below

Phase II (D and B batteries)

0.0072 lb/hr Lead from the flat push hot car (FPHC) vented to multiclone dust collector

0.000239 lb HAPs /ton coal from the flat push hot car (FPHC) vented to multiclone dust collector

0.230 lb/hr HAPs from the flat push hot car (FPHC) vented to multiclone dust collector

See section A.I.2.p below

Phase I and II

Visible particulate emissions of fugitive dust from the pushing operations shall not exceed 20% opacity as a 3-minute average. See section A.I.2.c below.

Phase I and II

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.

Phase I (D battery)

10.3 lbs/hr PM/PM₁₀ from the flat push hot car vented to multiclone dust collector

9.4 tpy PM/PM₁₀ as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

24 lbs/hr SO₂ from the flat push hot car (FPHC) vented to multiclone dust collector

28.8 lbs/hr SO₂ as a 3 hour average from the flat push hot car vented to multiclone dust collector

21.9 tpy SO₂ as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

7.68 lbs/hr NO_x from the flat push hot car vented to multiclone dust collector

7.01 tpy NO_x as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

36.96 lbs/hr CO from the flat push hot car vented to multiclone dust collector

33.73 tpy CO as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

96.0 lbs/hr VOC from the flat push hot car vented to multiclone dust collector

87.6 tpy VOC as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

Phase II (D and B batteries)

10.3 lbs/hr PM/PM₁₀ from the flat push hot car vented to multiclone dust collector

18.8 tpy PM/PM₁₀ as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

24 lbs/hr SO₂ from the flat push hot car vented to multiclone dust collector

28.8 lbs/hr SO₂ as a 3 hour average from the flat push hot car vented to multiclone dust collector

43.8 tpy SO₂ as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

7.68 lbs/hr NO_x from the flat push hot car vented to multiclone dust collector

14.02 tpy NO_x as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

36.96 lbs/hr CO from the flat push hot car (FPHC) vented to multiclone dust collector

67.45 tpy CO as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

96.0 lbs/hr VOC from the flat push hot car vented to multiclone dust collector

175.2 tpy VOC as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

Phase I and II

Particulate emissions from the flat push hot car vented to multiclone dust collector exhaust shall not exceed 0.03 lb PM₁₀ / ton of coke.

See section A.I.2.b below.

0.05 lb SO₂ / ton coal from the flat push hot car vented to multiclone dust collector

0.016 lb NO_x / ton coal from the flat push hot car vented to multiclone dust collector

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

<p>40 CFR Part 63, Subpart CCCCC</p>	<p>0.2 lb VOC / ton coal from the flat push hot car vented to multiclone dust collector</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 thru 3745-31-20.</p>
<p>OAC rule 3745-17-07(A)(1)</p>	<p>Phase I and II</p> <p>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.</p>
<p>OAC rule 3745-17-11(B)</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
<p>OAC rule 3745-23-06(B)</p>	<p>See section A.I.2.d below.</p>
<p>OAC rule 3745-21-08(B)</p>	<p>See section A.I.2.e below.</p>
<p>OAC rule 3745-31-05()(C)</p>	<p>See section A.I.2.f .</p>

2. Additional Terms and Conditions

2.a This permit allows for the construction and operation of this emissions unit in two phases.

Phase I will consist of one 100 oven coke battery (D) with one waste gas stack with a lime spray dryer/baghouse, one charging/ machine with a charging baghouse and attached hood, and one pushing machine with a mobile hood and with a multiclone dust collector. Phase I will require emergency stacks associated with the heat recovery steam generators (HRSGs) to be opened in order to safely perform annual inspection and maintenance procedures. The maximum time required for these procedures will be 14 days per HRSG per year. This will occur only during Phase I.

Nonrecovery Coke Battery B, 100 oven coke battery, will be constructed in Phase II. Following the construction of Battery B in Phase II, venting for HRSG maintenance will not be required because Battery D constructed in Phase I will be connected to Battery B, allowing for waste gas sharing. The waste gas from each battery will be vented to a shared lime spray dryer/baghouse venting to the waste gas stack. Each battery will have a charging/pushing machine. Emissions from charging will be collected at each battery in a

traveling baghouse and attached hood . Pushing emissions will be collected by the mobile hood and vented to a multiclone dust collector.

- 2.b** 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 SO₂ control, 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.
- 2.c** The emissions control system for the pushing operation(s) shall maintain a minimum capture efficiency of 98%.
- 2.d** Except as provided by rule, all stationary nitrogen oxide emission sources shall minimize nitrogen oxide emissions by the use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available control technologies described in term and condition A.I.2.b.i above to minimize nitrogen oxide emissions.
- 2.e** Except as provided by rule, all new stationary carbon monoxide emission sources shall minimize carbon monoxide emissions by the use of the best available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available control technologies described in term and conditions A.I.2.b.i and A.I.2.b.ii above to minimize carbon monoxide emissions.
- 2.f** Lead emissions shall not exceed 0.52 tons per year as a rolling, 12-month summation for emissions units P901, P902, P001, and P002 combined.

- 2.g** [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.
- 2.h** [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.
- 2.i** [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.
- 2.j** Waste gas emissions from the by-pass vent stacks of battery D, which divert the waste gas from the lime spray dryer/baghouse, shall occur during Phase I only.
- 2.k** [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.
- 2.l** [40 CFR 63.7300 (b)(1) through (6)]

The permittee must prepare and operate at all times according to a written operation and maintenance plan for the general operation and maintenance of new coke oven batteries. Each plan must address, at a minimum, the elements listed in paragraphs (1) through (6) below.
- (1) Not applicable to nonrecovery coke oven battery technology.
 - (2) Not applicable to nonrecovery coke oven battery technology.
 - (3) Procedures to prevent pushing an oven before it is fully coked.
 - (4) Procedures to prevent overcharging and undercharging of ovens, including measurement of coal moisture, coal bulk density, and procedures for determining volume of coal charged.
 - (5) Not applicable to nonrecovery coke oven battery technology.
 - (6) Schedule and procedures for the daily washing of baffles.

2.m [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 (1) through (3) below.

- (1) 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.
- (2) 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.

2.n Phase I Hazardous Air Pollutant (HAPs) emissions shall not exceed 2.2 tons per year for emissions units P001 and P901, combined.

2.o Phase II Hazardous Air Pollutant (HAPs) emissions shall not exceed 13.7 tons per year for emissions units P001, P002, P901 and P902, combined.

II. Operational Restrictions

1. The pressure drop across the waste gas exhaust baghouse shall be maintained within the range of 3 to 12 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 pressure drop across the pushing multiclone dust collector shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.
4. 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.
5. **Phase I and II**
The maximum hourly charging/pushing rate for this emissions unit shall not exceed 10 ovens per hour.

6. **Phase I**

The maximum daily wet coal usage rate for this emissions unit shall not exceed 2,400 wet tons coal.

Phase II

The maximum daily wet coal usage rate for this emissions unit shall not exceed 4,800 wet tons coal.

7. **Phase I**

The maximum annual wet coal usage rate for battery D in Phase I shall not exceed 876,000 tons, based upon a rolling, 12-month summation of the wet coal usage rates.

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

Month	Maximum Allowable Cumulative Wet Coal Usage
1	73,000
1-2	146,000
1-3	219,000
1-4	292,000
1-5	365,000
1-6	438,000
1-7	511,000
1-8	584,000
1-9	657,000
1-10	730,000
1-11	803,000
1-12	876,000

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

Phase II

The maximum annual wet coal usage rate for batteries B and D in Phase II shall not exceed 1,752,000 tons, based upon a rolling, 12-month summation of the wet coal usage rates.

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

Month	Maximum Allowable Cumulative Wet Coal Usage
1	146,000
1-2	292,000
1-3	438,000
1-4	584,000
1-5	730,000
1-6	876,000

1-7	1,022,000
1-8	1,168,000
1-9	1,314,000
1-10	1,460,000
1-11	1,606,000
1-12	1,752,000

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

8. The lime spray dryer and baghouse associated with the battery waste gas exhaust shall begin operation within forty (40) days after start-up of the first coke battery.
9. [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.
10. Waste gas emissions from the by-pass vent stacks of battery D shall be limited to a total of 336 hours per year for each vent stack. There shall no more than one vent stack open at any time.
11. [40 CFR 63.7290(b)(3)]
For each capture system applied to pushing emissions, the permittee shall:
 - (a) Maintain the daily average fan motor amperes at or above the minimum level established during the initial performance test; or
 - (b) 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.
12. [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.
13. [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.
14. 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.

15. 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 without shutdown of the heat recovery steam generators.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, 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 install, 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 install, 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 permittee shall record the pressure drop across the multiclone dust collector on a once per shift basis.

The hood and duct work collecting pushing emissions shall be visually examined weekly 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. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the wet coal usage rates.

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

7. The permittee shall operate and maintain equipment to continuously monitor and record SO₂ from the waste gas stack in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
8. The permittee shall maintain records of all data obtained by the continuous SO₂ monitoring system including, but not limited to, parts per million SO₂ on a 1-hour basis, and in units of pounds per hour on a one hour and three hour average basis and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
9. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO₂ monitoring system designed to ensure continuous valid and representative readings of SO₂. 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 SO₂ monitoring system must be kept on site and available for inspection during regular office hours.
10. The permittee shall monitor and record the temperature of the common battery tunnel on a once per shift basis.
11. 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.
12. [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 this section 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 this section 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.

13. [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 this section.
- 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 this section.
- 14. [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), 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 367 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 this section.
 - 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, 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.
- 15. [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 this section.
 - 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 this section. 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 this section.
 - 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 this section.
 - 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 this section.

- 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 this section, 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 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. (6) The Administrator may disapprove a plan revision required under paragraph (d) of this section 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 this section if the Administrator determines that a revised plan is needed to prevent exceedances of the applicable visible emission limitations.
16. [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.
17. [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.
18. [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.

19. [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.

20. [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.

21. [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).

22. [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;

23. [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.
24. [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).
25. 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.
26. For each capture system applied to pushing emissions, the permittee must at all times monitor the fan motor amperes according to the requirements in §63.7331(g) or the volumetric flow rate according to the requirements in §63.7331(h).
27. [40 CFR 63.7331 (g)]

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.

28. [40 CFR 63.7331 (h)]

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 the total volumetric flow rate at the inlet of the control device.

29. [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.
- (c) Records of performance tests, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

30. [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.

31. [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.

32. The permittee shall collect daily composite samples of the coal charged in this emissions unit. The individual samples for each daily composite shall be collected from either USC Battery Feed Conveyor #1 or USC Battery Feed Conveyor #5 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 day. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal.

Each daily composite sample of coal shall be analyzed for mercury content (percent), chlorine content (percent), and heat content (Btu/pound of coal). The analytical methods for mercury content, chlorine content, and heat content shall be: D3684-01 Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method; D2361-95(2001) Standard Test Method for Chlorine in Coal; and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isotherm Bomb Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

33. The permittee shall maintain daily records of the results of the analyses for mercury content, chlorine content, and heat content of the coal charged.
34. 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).
35. The permittee shall visually inspect each oven door for the presence or absence of visible emissions for a period of 10 minutes after being charged. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the oven door identification;
 - b. the color of the emissions;
 - c. the total duration of any visible emission incident; and
 - d. any corrective actions taken to eliminate the visible emissions.

[Note: the permittee is not required to comply with the requirements of this term if the permittee chooses to comply the 0.0 percent leaking coke oven doors limitation under 40 CFR 63.303(a)(1)(i)]

IV. 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 and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative wet coal usage levels.
7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth 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 SO₂ values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the daily SO₂ emission rates and/or the annual SO₂ emission rates. These reports shall also contain the total SO₂ emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth Local Air Agency documenting any continuous SO₂ 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 analyzer 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 analyzer 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 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

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 0.256 tons per year Lead emissions limitation.
10. [40 CFR 63.310(d)]
In order for the provisions of term and condition III.8. 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 IV.4 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 Part 1 - General Terms and Conditions of this permit under section (A)(1).
17. The permittee shall submit to the Portsmouth City Health Department quarterly common battery tunnel pressure drop deviation (excursion) reports that identify all periods of time during which there was not a negative pressure drop 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.
18. The permittee shall submit to the Portsmouth City Health Department 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.
19. The permittee shall submit to the Portsmouth City Health Department 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;
 - d. the average heat content (Btu/pound) 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.

V. Testing Requirements

1. Emission Testing Requirements

The permittee shall conduct, or have conducted, emission testing for the waste gas exhaust, at least one of the five by-pass vent stacks and the flat push hot car vented to multiclone dust collector associated with this emissions unit in accordance with the following requirements:

- a. The emission testing for Phase I shall be conducted within 60 days after achieving the maximum production rate for Battery D but no later than 180 days after initial startup of the emissions unit.

The emission testing for Phase II shall be conducted within 60 days after achieving the maximum production rate for Battery B but no later than 180 days after initial startup of the emissions unit.

- b. The emission testing shall be conducted to demonstrate compliance with the particulate, SO₂, NO_x, CO, VOC, Lead, and HAPs (waste gas stack and at least one by-pass vent stack) emissions limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Pollutant	Method of 40 CFR Part 60, Appendix A
particulates	Method 5
SO ₂	Method 6
NO _x	Method 7
CO	Method 10
VOC	Method 25 or 25A, as appropriate
Lead	Methods 12 or 29
HAPs	Method 18

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

The following test method(s) shall be employed to show Ohio EPA that mercury (Hg) emissions, acid gas emissions and dioxins and furan emissions are insignificant:

Pollutant	Method under 40 CFR
Hg emissions	Method 101 A of 40 CFR Part 61, Appendix B
Dioxins and furans	Method 23 of 40 CFR Part 60, Appendix A
Acid gas emissions (include HCl, HF, Cl ₂ , etc.)	Method 26 of 40 CFR Part 60, Appendix A

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

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

Personnel from the Portsmouth Local Air Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

2. Certification

Prior to the installation of the continuous SO₂ monitoring system, the permittee shall submit information detailing the proposed location of the sampling site(s) in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO₂ monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6. Personnel from the Portsmouth Local Air Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Portsmouth Local Air Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Portsmouth Local Air Agency and the Ohio EPA, Central Office. Certification of the continuous SO₂ monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6.

3. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation: **Phase I**

0.060 lb/hr Lead 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 12 or 29.

b. Emission Limitation: **Phase I**

0.0034 lb HAPs / ton coal from waste gas stack
2.30 lbs/hr HAPs 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 18. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation: **Phase I**

2.2 tpy HAPs for emission units P001 and P901, combined

Applicable Compliance Method:

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

i. Waste Gas Stack: Compliance shall be determined by multiplying the lbs total combined HAPS / wet ton coal charged from the Waste Gas exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the wet tons of coal charged per year divided by 2000 lbs/ton.

ii. By-Pass Vent Stack: Compliance shall be determined by multiplying the lbs total combined HAPS / wet ton coal charged from the By-Pass Vent Stack exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the wet tons of coal charged per year 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.

- iv. Charging Baghouse D: 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.
- v. 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.

d. Emission Limitation: **Phase I**

0.30 lb/hr lead from the by-pass vent stacks (VS1-VS5)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the lead emission factor of 0.0031 pounds/ton times the tons of coal charged per hour. The lead emission factor was obtained the draft AP-42, Section 12.2, Table 12.2-20, dated July 2001.

e. Emission Limitation: **Phase I**

0.024 lb HAPS / ton coal from the by-pass vent stacks (VS1-VS5)

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.

f. Emission Limitation: **Phase I**

2.20 lbs/hr HAPs from the by-pass vent stacks (VS1-VS5)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the summation of the individual HAP pollutants lb/ton emission factors times the tons of coal charged per hour. The HAPs emission factors were obtained from the draft AP-42, Section 12.2, Table 12.2-20, dated July 2001.

g. Emission Limitation: **Phase II**

0.060 lb/hr Lead 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 12 or 29.

h. Emission Limitation: **Phase II**

0.0048 lb HAPs / ton coal from the waste gas stack
17.02 lbs/hr HAPs 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 18. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

i. Emission Limitation: **Phase II**

13.7 tpy HAPs for 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 determined by multiplying the lbs total combined HAPS / wet ton coal charged from the Waste Gas exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the wet tons of coal charged per year 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 D: 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.

j. Emission Limitation: **Phase I and II**

Visible particulate emissions from waste gas stack B/D 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).

k. Emission Limitation: **Phase I and II**

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).

l. Emission Limitation: **Phase I and II**

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).

m. Emission Limitation: **Phase I**

17.14 lbs/hr PM/PM₁₀ from waste gas stack

Applicable Compliance Method:

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

n. Emission Limitation: **Phase I**

75.09 tpy PM/PM₁₀ 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/PM₁₀ emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM₁₀ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

o. Emission Limitation: **Phase I**

422.40 lbs/hr SO₂ from the waste gas stack

Applicable Compliance Method:

Compliance shall be demonstrated from the lbs/hr SO₂ emission rate obtained from the SO₂ continuous emissions monitor on the lime spray dryer for the coke oven battery waste gas exhaust.

p. Emission Limitation: **Phase I**

506.88 lbs/hr SO₂ as a 3 hour average from the waste gas stack

Applicable Compliance Method:

Compliance shall be demonstrated from the three hour average SO₂ emission rate obtained from the SO₂ continuous emissions monitor on the lime spray dryer for the coke oven battery waste gas exhaust.

q. Emission Limitation: **Phase I**

385.44 tpy SO₂ 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 SO₂ emissions rate in pounds/day for each day of the calendar month, as measured by the SO₂ continuous emissions monitor and dividing by 2,000 pounds/ton.

r. Emission Limitation: **Phase I**

480.0 lbs/hr NO_x from the waste gas stack

Applicable Compliance Method:

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

s. Emission Limitation: **Phase I**

438.0 tpy NO_x 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_x emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO_x emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

t. Emission Limitation: **Phase I**

21.81 lbs/hr 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, Method 10.

u. Emission Limitation: **Phase I**

95.54 tpy CO 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.

v. Emission Limitation: **Phase I**

4.67 lbs/hr 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, Method 25 or 25A, as appropriate.

w. Emission Limitation: **Phase I**

20.47 tpy VOC as a rolling, 12-month summation from the waste gas stack

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.

x. Emission Limitation: **Phase I**

12.86 lbs/hr PM/PM₁₀ from the by-pass vent stacks (only 1 of the 5 stacks shall be vented at any given time)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the grains of PM/PM₁₀ per dscf of 0.03 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/PM₁₀ emission estimate was obtained from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10/1989..

y. Emission Limitation: **Phase I**

10.80 tpy PM/PM₁₀ from the by-pass vent stacks

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the grains of PM/PM₁₀ per dscf of 0.03 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 multiplied by 336 hours of venting per year divided by 2000 lbs per ton multiplied by the number of by-pass vent stacks (5). The PM/PM₁₀ emission estimate was obtained from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10/1989..

z. Emission Limitation: **Phase I**

1056 lbs/hr SO₂ from the by-pass vent stacks (only 1 of the 5 stacks shall be vented at any given time)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the SO₂ emission factor of 11 pounds/ton times the tons of coal charged per hour multiplied by an estimated 20% of total gas venting. The SO₂ emission factor was obtained from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10/1989.

aa. Emission Limitation:

1267.2 lb/hr SO₂ as a 3 hour average from the by-pass vent stacks

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the SO₂ emission factor of 11 pounds/ton times the tons of coal charged per hour multiplied by an estimated 20% total gas venting. The SO₂ emission factor was obtained from a stack test at the Jewell Coal and Coke Company in Vansant, VA in 10/1989.

ab. Emission Limitation: **Phase I**

184.80 tpy SO₂ from the by-pass vent stacks

Applicable Compliance Method:

The emission limit was derived by multiplying the SO₂ emission factor of 11 pounds/ton times the tons of coal charged per day multiplied by an estimated 20% of total waste gas venting times 14 days of venting per year times the 5 vent stacks divided by 2,000 lbs/ton. The SO₂ emission factor was obtained the draft AP-42, Section 12.2, Table 12.2-20, dated July 2001.

ac. Emission Limitation: **Phase I**

96 lbs/hr NO_x from the by-pass vent stacks (only 1 of the 5 stacks shall be vented at any given time)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NO_x 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_x emission factor was obtained from a EPA stack test data at ---Jewell Coke Co. dated ---- September 1992.

ad. Emission Limitation: **Phase I**

16.80 tpy NO_x from the by-pass vent stacks

Applicable Compliance Method:

The emission limit was derived by multiplying the NO_x emission factor of 1 pound/ton times the tons of coal charged per day multiplied by an estimated 20% of total waste gas venting times 14 days of venting per year times the 5 vent stacks divided by 2,000 lbs/ton. The NO_x emission factor was obtained from a EPA stack test data at Jewell Coke Co. dated September 1992.

ae. Emission Limitation: **Phase I**

4.36 lbs/hr CO from the by-pass vent stacks (only 1 of the 5 stacks shall be vented at any given time)

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.

af. Emission Limitation: **Phase I**

3.66 tpy CO from the 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, times the total hours/year of all by-pass events, divided by 2,000 pounds/ton.

ag. Emission Limitation: **Phase I**

0.93 lb/hr VOC from the by-pass vent stacks (only 1 of the 5 stacks shall be vented at any given time)

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.

ah. Emission Limitation: **Phase I**

0.79 tpy VOC from the by-pass vent stacks

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.

ai. Emission Limitation: **Phase II**

34.29 lbs/hr PM/PM₁₀ 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, Method 5.

aj. Emission Limitation: **Phase II**

150.17 tpy PM/PM₁₀ 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/PM₁₀ emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM₁₀ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

ak. Emission Limitation: **Phase II**

422.40 lbs/hr SO₂ from the waste gas stack

Applicable Compliance Method:

Compliance shall be demonstrated from the lbs/hr SO₂ emission rate obtained from the SO₂ continuous emissions monitor on the lime spray dryer for the coke oven battery waste gas exhaust.

al. Emission Limitation: **Phase II**

506.88 lbs/hr SO₂ as a 3 hour average from the waste gas stack

Applicable Compliance Method:

Compliance shall be demonstrated from the three hour average SO₂ emission rate obtained from the SO₂ continuous emissions monitor on the lime spray dryer for the coke oven battery waste gas exhaust.

am. Emission Limitation: **Phase II**

770.88 tpy SO₂ 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 emission for the preceding eleven calendar months. Monthly emissions shall be determined by adding the SO₂ emissions rate in pounds/day for each day of the calendar month, as measured by the SO₂ continuous emissions monitor and dividing by 2,000 pounds/ton.

an. Emission Limitation: **Phase II**

480 lbs/hr NO_x from the waste gas stack

Applicable Compliance Method:

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

ao. Emission Limitation: **Phase II**

876 tpy NO_x 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_x emission factor, in pounds/ton coal, times the tons of coal charged per

month, divided by 2,000 pounds/ton. The NO_x emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

ap. Emission Limitation: **Phase II**

43.63 lbs/hr CO from the waste gas stack

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.

aq. Emission Limitation: **Phase II**

191.08 tpy CO 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.

ar. Emission Limitation: **Phase II**

9.35 lbs/hr VOC 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, Method 25 or 25A, as appropriate.

as. Emission Limitation: **Phase II**

40.95 tpy VOC 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, 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.

at. Emission Limitation: **Phase I and II**

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.

au. Emission Limitation: **Phase I and II**

0.88 lb SO₂ / 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, Method 6.

av. Emission Limitation: **Phase I and II**

1 lb NO_x / 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, Method 7.

aw. Emission Limitation: **Phase I and II**

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, Method 10.

ax. Emission Limitation: **Phase I and II**

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, Method 25 or 25A, as appropriate.

ay. Emission Limitation: **Phase I**

3.89 lbs/hr fugitive PM

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.

az. Emission Limitation: **Phase I**

3.55 tpy fugitive PM

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.

ba. Emission Limitation: **Phase II**

7.78 lbs/hr fugitive PM

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.

bb. Emission Limitation: **Phase II**

14.19 tpy fugitive PM

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.

bc. Emission Limitation: **Phase I and II**

Visible particulate emissions 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).

bd. Emission Limitation: **Phase I**

0.80 lb/hr PM/PM₁₀ from charging baghouse D

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the manufacturer's guaranteed emission rate of 0.008 gr/dscf times the maximum air flow of the baghouse, in dscf/min, times 4 minutes per charge multiplied by the maximum number of ovens charged per hour (10), divided by 7,000 grains/pound.

be. Emission Limitation: **Phase I**

0.73 tpy PM/PM₁₀ 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 manufacturer's guaranteed emission rate of 0.008 gr/dscf times the maximum air flow of the baghouse, in dscf/min, times 4 minutes per charge multiplied by the maximum number of ovens charged per day (50), times 365 days per year divided by 7,000 grains/pound. divided by 2000 lbs/ton .

bf. Emission Limitation: **Phase I**

1.17 lbs/hr fugitive PM₁₀ 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_{10} . The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

bg. Emission Limitation: **Phase I**

1.06 tpy PM_{10} fugitive emissions 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 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_{10} , 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.

bh. Emission Limitation: **Phase I**

0.144 SO_2 from charging baghouse D

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_2 emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

bi. Emission Limitation: **Phase I**

0.13 tpy SO_2 as a rolling, 12-month summation from charging baghouse D

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_2 emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

bj. Emission Limitation: **Phase I**

1.34 lbs/hr CO from charging baghouse D

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.

Emission Limitation: **Phase I**

bk. 1.23 tpy CO as a rolling, 12-month summation from charging baghouse D

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.

bl. Emission Limitation: **Phase I**

0.000048 lb/hr lead from charging baghouse D

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0000001 lb lead/wet ton coal charged, times the wet tons of coal charged per hour. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

bm. Emission Limitation: **Phase I**

0.000112 lb HAPs / ton coal from charging baghouse D

Applicable Compliance Method:

Compliance shall be demonstrated by the 0.000112 pounds/ton HAP emission rate obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

bn. Emission Limitation: **Phase I**

0.0536 lb/hr HAPs from charging baghouse D

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton, times the maximum tons of coal charged per hour. The HAPs emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

bo. Emission Limitation: **Phase II**

0.000048 lb/hr lead from each charging baghouse

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0000001 lb lead/wet ton coal charged, times the wet tons of coal charged per hour. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

bp. Emission Limitation: **Phase II**

0.000112 lb HAPs / ton coal from each charging baghouse

Applicable Compliance Method:

Compliance shall be demonstrated by the 0.000112 pounds/ton HAP emission rate obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

bq. Emission Limitation: **Phase II**

0.1072 lb/hr HAPs from each charging baghouse

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton, times the maximum tons of coal charged per hour. The HAPs emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

br. Emission Limitation: **Phase I**

0.96 lb/hr VOC from charging baghouse D

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.

bs. Emission Limitation: **Phase I**

0.88 tpy VOC as a rolling, 12-month summation from charging baghouse D

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.

bt. Emission Limitation: **Phase II**

0.80 lb/hr PM/PM₁₀ from each charging baghouse (D and B)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the manufacturer's guaranteed emission rate of 0.008 gr/dscf times the maximum air flow of the baghouse, in dscf/min, times 4 minutes per charge multiplied by the maximum number of ovens charged per hour (10), divided by 7,000 grains/pound.

bu. Emission Limitation: **Phase II**

0.73 tpy PM/PM₁₀ as a rolling, 12-month summation from each charging baghouse (D and B)

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 lbs/hr emission limitation in V.bn. above by 8760 hours per year divided by 2000 lbs/ton .

bv. Emission Limitation: **Phase II**

2.33 lbs/hr fugitive PM₁₀

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 PM₁₀. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

bw. Emission Limitation: **Phase II**

4.26 tpy PM₁₀ fugitive emissions 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 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 PM₁₀, 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.

bx. Emission Limitation: **Phase II**

0.144 lb/hr SO₂ from each charging baghouse (D and B)

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 SO₂ emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

by. Emission Limitation: **Phase II**

0.13 tpy SO₂ as a rolling, 12-month summation from each charging baghouse (D and B)

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 SO₂ emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

bz. Emission Limitation: **Phase II**

1.34 lbs/hr CO from each charging baghouse (D and B)

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 SO₂ emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

ca. Emission Limitation: **Phase II**

1.23 tpy CO as a rolling, 12-month summation from each charging baghouse (D and B)

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.

cb. Emission Limitation: **Phase II**

0.96 lb/hr VOC from each charging baghouse (D and B)

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.

cc. Emission Limitation: **Phase II**

0.88 tpy VOC as a rolling, 12-month summation from each charging baghouse (D and B)

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.

cd. Emission Limitation: **Phase I and II**

Particulate emissions from each charging baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated by the manufacturer's guaranteed emission limitations.

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

ce. Emission Limitation: **Phase I and II**

Visible particulate emissions from the charging baghouse stacks 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).

cf. Emission Limitation: **Phase I**

0.0072 lb/hr Lead from the flat push hot car vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 12 or 29.

cg. Emission Limitation: **Phase I**

0.0066 tpy Lead 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, times the maximum tons of coal charged per year, 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.

ch. Emission Limitation: **Phase I and II**

0.000239 lb HAPs / ton coal from the flat push hot car vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated by the 0.00024 the pounds/ton HAP emission rate calculated from the results of the October 1989 stack test conducted at Jewell Coal and Coke located in Vansant, Virginia.

ci Emission Limitation: **Phase I**

0.115 lb/hr HAPs 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, times the maximum tons of coal charged per hour. The HAPs emission factor was calculated from the results of the October 1989 stack test conducted at Jewell Coal and Coke located in Vansant, Virginia.

cj Emission Limitation: **Phase II**

0.230 lb/hr HAPs 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, times the maximum tons of coal charged per hour. The HAPs emission factor was calculated from the results of the October 1989 stack test conducted at Jewell Coal and Coke located in Vansant, Virginia.

ck Emission Limitation: **Phase II**

0.0072 lb/hr Lead from the flat push hot car vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 12 or 29.

cl. Emission Limitation: **Phase I and II**

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).

cm. Emission Limitation: **Phase I**

13.72 lbs/hr PM/PM₁₀ from the flat push hot car (FPHC) 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.

cn. Emission Limitation: **Phase I**

12.53 tpy PM/PM₁₀ 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/PM₁₀ emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM₁₀ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

co. Emission Limitation: **Phase I**

24 lbs/hr SO₂ 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.

cp. Emission Limitation: **Phase I**

28.8 lbs/hr SO₂ as a 3 hour 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.

cq. Emission Limitation: **Phase I**

21.9 tpy SO₂ 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 SO₂ emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The SO₂ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

cr. Emission Limitation: **Phase I**

7.68 lbs/hr NO_x 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.

cs. Emission Limitation: **Phase I**

7.01 tpy NO_x 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_x emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO_x emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

ct. Emission Limitation: **Phase I**

36.96 lbs/hr CO 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.

cu. Emission Limitation: **Phase I**

33.73 tpy CO 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.

cv. Emission Limitation: **Phase I**

96.0 lbs/hr VOC 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.

cw. Emission Limitation: **Phase I**

87.6 tpy VOC 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.

cx. Emission Limitation: **Phase II**

13.72 lbs/hr PM/PM₁₀ 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.

cy. Emission Limitation: **Phase II**

25.1 tpy PM/PM₁₀ as a rolling, 12-month summation from the flat push hot car (FPHC) 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/PM₁₀ emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM₁₀ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

cz. Emission Limitation: **Phase II**

24 lbs/hr SO₂ 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.

da. Emission Limitation: **Phase II**

28.8 lbs/hr SO₂ as a 3 hour 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.

db. Emission Limitation: **Phase II**

43.8 tpy SO₂ 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 SO₂ emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The SO₂ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

dc. Emission Limitation: **Phase II**

7.68 lbs/hr NO_x 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.

dd. Emission Limitation: **Phase II**

14.02 tpy NO_x 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_x emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO_x emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

de. Emission Limitation: **Phase II**

36.96 lbs/hr CO 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.

df. Emission Limitation: **Phase II**

67.45 tpy CO 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.

dg. Emission Limitation: **Phase II**

96.0 lbs/hr VOC 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.

dh. Emission Limitation: **Phase II**

175.2 tpy VOC 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.

di. Emission Limitation: **Phase I and II**

Particulate emissions from the flat push hot car vented to multiclone dust collector exhaust shall not exceed 0.03 lb PM₁₀ / 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.

dj. Emission Limitation: **Phase I and II**

0.05 lb SO₂ / 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, Method 6.

dk. Emission Limitation: **Phase I and II**

0.016 lb NO_x / 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, Method 7.

dl. Emission Limitation: **Phase I and II**

0.077 lb 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, Method 10.

dm. Emission Limitation: **Phase I and II**

0.2 lb 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, Method 25 or 25A, as appropriate.

dn. Emission Limitation: **Phase I and II**

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).

do. Emission Limitation: **Phase I and II**

Lead emissions shall not exceed 0.52 tons 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.

vi. 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.

dp. 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 A.III.11 of this permit.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P901 - Phase I: 100 oven nonrecovery coke battery (D battery) and Phase II: 100 oven nonrecovery coke battery (B battery)		Compliance with OEPA Air Toxics Policy; see Part II, term B.
Waste Gas from Coking Process with dry scrubber with baghouse and staged combustion		
Charging Operations with baghouse with traveling hood		
Pushing Operations with mobile hood with a multiclone		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P902 - Two 100 oven nonrecovery coke oven batteries (A and C batteries)	OAC rule 3745-31-05(A)(3)	0.060 lb/hr Lead from the waste gas stack 0.0048 lb HAPs / ton coal from the waste gas stack 17.02 lbs/hr HAPs from the waste gas stack
Waste Gas from Coking Process with dry scrubber with baghouse and staged combustion	OAC rule 3745-31-10 through 20	<p>See section A.I.2.o 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>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> <p>34.29 lbs/hr PM/PM₁₀ from the waste gas stack 150.17 tpy PM/PM₁₀ as a rolling, 12-month summation from the waste gas stack</p>

	<p>422.40 lbs/hr SO₂ from the waste gas stack 506.88 lbs/hr SO₂ as a 3 hour average from the waste gas stack 770.88 tpy SO₂ as a rolling, 12-month summation from the waste gas stack 480 lbs/hr NO_x from the waste gas stack 876 tpy NO_x as a rolling, 12-month summation from the waste gas stack 43.63 lbs/hr CO from the waste gas stack 191.08 tpy CO as a rolling, 12-month summation from the waste gas stack 9.35 lbs/hr VOC from the waste gas stack 40.95 tpy VOC as a rolling, 12-month summation from waste gas stack</p> <p>Particulate emissions from the lime spray dryer baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases.</p> <p>0.88 lb SO₂ / ton coal from the waste gas stack 1 lb NO_x / ton coal from the waste gas stack 20 ppm CO from the waste gas stack 10 ppm VOC from the waste gas stack See section A.I.2.a below.</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>See section A.I.2.d below.</p> <p>See section A.I.2.c below.</p>
OAC rule 3745-17-07(A)(1)	
OAC rule 3745-17-11(B)	
OAC rule 18-06(E)(2)	
OAC rule 21-08(B)	
OAC rule 23-06(B)	

Charging Operations with
baghouse with traveling hood

OAC rule 31-05(D)

40 CFR Part 63, Subpart L

OAC rule 3745-31-05(A)(3)

See sections A.I.2.e .

See sections A.I.2.f, A.I.2.g, and A.I.2.h
below.

7.78 lbs/hr fugitive PM from charging
14.19 tpy fugitive PM from charging
0.000048 lb/hr lead from each charging
baghouse

0.000112 lb HAPs / ton coal from each
charging baghouse

0.1072 lb/hr HAPs from each charging
baghouse

See section A.I.2.o below

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.

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

0.80 lb/hr PM/PM₁₀ from each charging
baghouse (A and C)

0.73 tpy PM/PM₁₀ as a rolling, 12-month
summation from each charging baghouse
(A and C)

7.78 lbs/hr fugitive PM₁₀ from charging
14.19 tpy fugitive PM₁₀ as a rolling, 12-
month summation from charging

0.144 lb/hr SO₂ from each charging
baghouse (A and C)

0.13 tpy SO₂ as a rolling, 12-month
summation from each charging baghouse

1.34 lbs/hr CO from each charging
baghouse (A and C)

1.23 tpy CO as a rolling, 12-month
summation from each charging baghouse
(A and C)

		0.96 lb/hr VOC from each charging baghouse (A and C) 0.88 tpy VOC as a rolling, 12-month summation from each charging baghouse (A and C)
	OAC rule 3745-31-10 through 20	Particulate emissions from each charging baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases (A and C). See section A.I.2.a below.
		0.0003 lb SO ₂ / ton coal from each charging baghouse (A and C) 0.0028 lb CO / ton coal from each charging baghouse (A and C) 0.002 lb VOC / ton coal from each charging baghouse (A and C)
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the charging baghouse stacks shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	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).
	OAC rule 3745-21-08(B)	See section A.I.2.d below.
	OAC rule 3745-31-05(D)	See sections A.I.2.e.
	40 CFR Part 63, Subpart L	See sections A.I.2.f, A.I.2.g, and A.I.2.h below.
	OAC rule 3745-31-05(A)(3)	0.0072 lb/hr Lead from the flat push hot car vented to multiclone dust collector 0.000239 lb HAPs /ton coal from the flat push hot car vented to multiclone dust collector 0.230 lb/hr HAPs from the flat push hot car vented to multiclone dust collector
Pushing Operations with mobile hood with a multiclone administrative modification to replace the pushing operations baghouse and shed with flat car pushing with a		See section A.I.2.o below

mobile hood with a
multiclone

OAC rule 3745-31-10 through 20

Visible particulate emissions of fugitive dust from the pushing operations shall not exceed 20% opacity as a 3-minute average. See section A.I.2.b below.

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.

10.3 lbs/hr PM/PM₁₀ from the flat push hot car vented to multiclone dust collector

18.8 tpy PM/PM₁₀ as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

24 lbs/hr SO₂ from the flat push hot car vented to multiclone dust collector

28.8 lbs/hr SO₂ as a 3 hour average from the flat push hot car vented to multiclone dust collector

43.8 tpy SO₂ as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

7.68 lbs/hr NO_x from the flat push hot car vented to multiclone dust collector

14.02 tpy NO_x as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

36.96 lbs/hr CO from the flat push hot car vented to multiclone dust collector

67.45 tpy CO as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector

96.0 lbs/hr VOC from the flat push hot car vented to multiclone dust collector

	<p>175.2 tpy VOC as a rolling, 12-month summation from the flat push hot car vented to multiclone dust collector</p> <p>Particulate emissions from the flat push hot car vented to multiclone dust collector exhaust shall not exceed 0.03 lb PM₁₀ / ton of coke.</p> <p>See section A.I.2.a below.</p> <p>0.05 lb SO₂ / ton coal from the flat push hot car vented to multiclone dust collector</p> <p>0.016 lb NO_x / ton coal from the flat push hot car vented to multiclone dust collector</p> <p>0.077 lb CO / ton coal from the flat push hot car vented to multiclone dust collector</p> <p>0.2 lb VOC / ton coal from the flat push hot car vented to multiclone dust collector</p>
40 CFR Part 63, Subpart CCCCC	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 thru 3745-31-20.</p>
OAC rule 3745-17-07(A)(1)	<p>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.</p>
OAC rule 3745-17-11(B)	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
	<p>See section A.I.2.c below.</p>
OAC rule 3745-23-06(B)	<p>See section A.I.2.d below.</p>
OAC rule 3745-21-08(B)	<p>See section A.I.2.e.</p>
OAC rule 3745-31-05(D)	

2. Additional Terms and Conditions

- 2.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 SO₂ control, staged combustion for NO_x 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.
- 2.b** The emissions control system for the pushing operation(s) shall maintain a minimum capture efficiency of 98%.
- 2.c** Except as provided by rule, all stationary nitrogen oxide emission sources shall minimize nitrogen oxide emissions by the use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available control technologies described in term and condition A.I.2.b.i above to minimize nitrogen oxide emissions.
- 2.d** Except as provided by rule, all new stationary carbon monoxide emission sources shall minimize carbon monoxide emissions by the use of the best available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available control technologies described in term and conditions A.I.2.b.i and A.I.2.b.ii above to minimize carbon monoxide emissions.
- 2.e** Lead emissions shall not exceed 0.52 tons per year as a rolling, 12-month summation for emissions units P901, P902, P001, and P002 combined.
- 2.f** [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.

- 2.g** [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.
- 2.h** [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.
- 2.i** Waste gas emissions from the by-pass vent stacks of battery D, which divert the waste gas from the lime spray dryer/baghouse, shall occur during Phase I only.
- 2.j** [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.
- 2.k** [40 CFR 7300(b)(1) through (6)]

The permittee must prepare and operate at all times according to a written operation and maintenance plan for the general operation and maintenance of new coke oven batteries.

Each plan must address, at a minimum, the elements listed in paragraphs (1) through (6) below.

Not applicable to nonrecovery coke oven battery technology.
- (1) Procedures to prevent pushing an oven before it is fully coked.
 - (2) Procedures to prevent overcharging and undercharging of ovens, including measurement of coal moisture, coal bulk density, and procedures for determining volume of coal charged.
- Not applicable to nonrecovery coke oven battery technology.
- (3) Schedule and procedures for the daily washing of baffles.

2.1 [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 (1) through (3) below.

- (1) 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.
- (2) 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.

2.m Hazardous Air Pollutant (HAPs) emissions shall not exceed 13.7 tons per year for emissions units P001, P002, P901 and P902, combined.

II. Operational Restrictions

1. The pressure drop across the waste gas exhaust baghouse shall be maintained within the range of 3 to 12 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 pressure drop across the pushing multiclone dust collector shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.
4. 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.
5. The maximum hourly charging/pushing rate for this emissions unit shall not exceed 10 ovens per hour.
6. The maximum daily wet coal usage rate for this emissions unit shall not exceed 4,800 wet tons coal.
7. The maximum annual wet coal usage rate for this emissions unit shall not exceed 1,752,000 tons, based upon a rolling, 12-month summation of the wet coal usage rates.

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

Month	Maximum Allowable Cumulative Wet Coal Usage
1	146,000
1-2	292,000
1-3	438,000
1-4	584,000
1-5	730,000
1-6	876,000
1-7	1,022,000
1-8	1,168,000
1-9	1,314,000
1-10	1,460,000
1-11	1,606,000
1-12	1,752,000

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

8. The lime spray dryer and baghouse associated with the battery waste gas exhaust shall begin operation within forty (40) days after start-up of the first coke battery.
9. [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.
10. [40 CFR 63.7290(b)(3)]
For each capture system applied to pushing emissions, the permittee shall:
 - (a) Maintain the daily average fan motor amperes at or above the minimum level established during the initial performance test; or
 - (b) 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.
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 without shutdown of the heat recovery steam generators.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, 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 install, 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 install, operate, and maintain equipment to monitor the pressure drop across the 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 permittee shall record the pressure drop across the multiclone dust collector on a once per shift basis.

The hood and duct work collecting pushing emissions shall be visually examined weekly 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. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the wet coal usage rates.

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

7. The permittee shall operate and maintain equipment to continuously monitor and record SO₂ from the waste gas stack in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
8. The permittee shall maintain records of all data obtained by the continuous SO₂ monitoring system including, but not limited to, parts per million SO₂ on a 1-hour basis, and in units of pounds per hour on a one hour and three hour average basis and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
9. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO₂ monitoring system designed to ensure continuous valid and representative readings of SO₂. 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 SO₂ monitoring system must be kept on site and available for inspection during regular office hours.
10. The permittee shall monitor and record the temperature of the common battery tunnel on a once per shift basis.
11. 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.
12. [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 this section 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 this section 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.
13. [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 this section.
 - 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 this section.
- 14. [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), 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. (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 this section.
 - 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 this section.
 - 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 this section, 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 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. (6) The Administrator may disapprove a plan revision required under paragraph (d) of this section 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 this section if the Administrator determines that a revised plan is needed to prevent exceedances of the applicable visible emission limitations.
16. [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.
17. [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.

18. [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.

19. [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.

20. [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.

21. [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).
22. [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;
23. [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.
24. [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).
25. 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.
26. For each capture system applied to pushing emissions, the permittee must at all times monitor the fan motor amperes according to the requirements in §63.7331(g) or the volumetric flow rate according to the requirements in §63.7331(h).
27. [40 CFR 63.7331 (g)]

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.

28. [40 CFR 63.7331 (h)]

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 the total volumetric flow rate at the inlet of the control device.

29. [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.
- (c) Records of performance tests, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

30. [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.

31. [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.

32. The permittee shall collect daily composite samples of the coal charged in this emissions unit. The individual samples for each daily composite shall be collected from either USC Battery Feed Conveyor #1 or USC Battery Feed Conveyor #5 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 day. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal.

Each daily composite sample of coal shall be analyzed for mercury content (percent), chlorine content (percent), and heat content (Btu/pound of coal). The analytical methods for mercury content, chlorine content, and heat content shall be: D3684-01 Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method; D2361-95(2001) Standard Test Method for Chlorine in Coal; and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval from the appropriate Ohio EPA District Office or local air agency.

33. The permittee shall maintain daily records of the results of the analyses for mercury content, chlorine content, and heat content of the coal charged.
34. 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).
35. The permittee shall visually inspect each oven door for the presence or absence of visible emissions for a period of 10 minutes after being charged. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the oven door identification;
 - b. the color of the emissions;
 - c. the total duration of any visible emission incident; and
 - d. any corrective actions taken to eliminate the visible emissions.

[Note: the permittee is not required to comply with the requirements of this term if the permittee chooses to comply the 0.0 percent leaking coke oven doors limitation under 40 CFR 63.303(a)(1)(i)]

IV. 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 and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative wet coal usage levels.
7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth 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 SO₂ values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the daily SO₂ emission rates and/or the annual SO₂ emission rates. These reports shall also contain the total SO₂ emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth Local Air Agency documenting any continuous SO₂ 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 analyzer 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 analyzer 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 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

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 9.9 tons per year as a rolling, 12-month summation for any single HAP and/or 24.9 tons per year as a rolling, 12-month summation for total combined HAPs emissions limitations.
10. The permittee shall submit deviation (excursion) reports which identify all exceedances of the 0.52 tons per year Lead emissions limitation.
11. [40 CFR 63.310(d)]
In order for the provisions of term and condition III.8. 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.
12. [40 CFR 63.310(e)]
Within 14 days of the original notification made under term and condition IV.4 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.

13. [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.
14. [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.
15. [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.
16. The permittee shall submit semi-annual written reports which identify the date, time, and duration of each waste gas by-pass event.
17. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).
18. The permittee shall submit to the Portsmouth City Health Department quarterly common battery tunnel pressure drop deviation (excursion) reports that identify all periods of time during which there was not a negative pressure drop 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.
19. The permittee shall submit to the Portsmouth City Health Department 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.

20. The permittee shall submit to the Portsmouth City Health Department 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;
 - d. the average heat content (Btu/pound) 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.

V. Testing Requirements

1. Emission Testing Requirements

The permittee shall conduct, or have conducted, emission testing for the waste gas exhaust and the flat push hot car (FPHC) vented to multiclone dust collector associated with this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the particulate, SO₂, NO_x, CO, VOC, Lead, and HAPs (waste gas stack only) emissions limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Pollutant	Method of 40 CFR Part 60, Appendix A
particulates	Method 5
SO ₂	Method 6
NO _x	Method 7
CO	Method 10
VOC	Method 25 or 25A, as appropriate
Lead	Methods 12 or 29
HAPs	Method 18

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

The following test method(s) shall be employed to show Ohio EPA that mercury (Hg) emissions, acid gas emissions and dioxins and furan emissions are insignificant:

Pollutant	Method under 40 CFR
Hg emissions	Method 101 A of 40 CFR Part 61, Appendix B
Dioxins and furans	Method 23 of 40 CFR Part 60, Appendix A
Acid gas emissions (include HCl, HF, Cl ₂ , etc.)	Method 26 of 40 CFR Part 60, Appendix A

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

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

Personnel from the Portsmouth Local Air Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

2. Certification

Prior to the installation of the continuous SO₂ monitoring system, the permittee shall submit information detailing the proposed location of the sampling site(s) in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO₂ monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6. Personnel from the Portsmouth Local Air Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted

to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Portsmouth Local Air Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Portsmouth Local Air Agency and the Ohio EPA, Central Office. Certification of the continuous SO₂ monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6.

3. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

0.060 lb/hr Lead 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 12 or 29.

b. Emission Limitation:

0.0048 lb HAPs / ton coal from the waste gas stack
17.02 lbs/hr HAPs 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 18. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation:

13.7 tpy HAPs fro 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 determined by multiplying the lbs total combined HAPS / wet ton coal charged from the Waste Gas exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the wet tons of coal charged per year 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 D: 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.

d. Emission Limitation:

Visible particulate emissions from waste gas stack B/D 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:

34.29 lbs/hr PM/PM₁₀ from waste gas stack

Applicable Compliance Method:

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

h. Emission Limitation:

150.17 tpy PM/PM₁₀ 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/PM₁₀ emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM₁₀ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

i. Emission Limitation:

422.40 lbs/hr SO₂ from the waste gas stack

Applicable Compliance Method:

Compliance shall be demonstrated from the lbs/hr SO₂ emission rate obtained from the SO₂ continuous emissions monitor on the lime spray dryer for the coke oven battery waste gas exhaust.

j. Emission Limitation:

506.88 lbs/hr SO₂ as a 3 hour average from the waste gas stack

Applicable Compliance Method:

Compliance shall be demonstrated from the three hour average SO₂ emission rate obtained from the SO₂ continuous emissions monitor on the lime spray dryer for the coke oven battery waste gas exhaust.

k. Emission Limitation:

770.88 tpy SO₂ 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 SO₂ emissions rate in pounds/day for each day of the calendar month, as measured by the SO₂ continuous emissions monitor and dividing by 2,000 pounds/ton.

l. Emission Limitation:

480.0 lbs/hr NO_x from the waste gas stack

Applicable Compliance Method:

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

m. Emission Limitation:

876 tpy NO_x 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_x emission factor, in pounds/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO_x emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

n. Emission Limitation:

43.63 lbs/hr 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, Method 10.

o. Emission Limitation:

191.08 tpy CO 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.

p. Emission Limitation:

9.35 lbs/hr 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, Method 25 or 25A, as appropriate.

q. Emission Limitation:

40.95 tpy VOC as a rolling, 12-month summation from the waste gas stack

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.

r. 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.

s. Emission Limitation:

0.88 lb SO₂ / 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, Method 6.

t. Emission Limitation:

1 lb NO_x / 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, Method 7.

u. 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, Method 10.

v. 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, Method 25 or 25A, as appropriate.

w. Emission Limitation:

7.78 lbs/hr fugitive PM

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.

x. Emission Limitation:

14.19 tpy fugitive PM

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.

y. Emission Limitation:

Visible particulate emissions 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).

z. Emission Limitation:

0.80 lb/hr PM/PM₁₀ from each charging baghouse (A and C)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the manufacturer's guaranteed emission rate of 0.008 gr/dscf times the maximum air flow of the baghouse, in dscf/min, times 4 minutes per charge multiplied by the maximum number of ovens charged per hour (10), divided by 7,000 grains/pound.

aa. Emission Limitation:

0.73 tpy PM/PM₁₀ as a rolling, 12-month summation from each charging baghouse (A and C)

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 manufacturer's guaranteed emission rate of 0.008

gr/dscf times the maximum air flow of the baghouse, in dscf/min, times 4 minutes per charge multiplied by the maximum number of ovens charged per day (50), times 365 days per year divided by 7,000 grains/pound. divided by 2000 lbs/ton .

ab. Emission Limitation:

2.33 lbs/hr fugitive PM₁₀

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 PM₁₀. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

ac. Emission Limitation:

4.26 tpy PM₁₀ fugitive emissions 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 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 PM₁₀, 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.

ad. Emission Limitation:

0.144 lb/hr SO₂ from each charging baghouse (A and C)

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 SO₂ emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

ae. Emission Limitation:

0.13 tpy SO₂ as a rolling, 12-month summation from each charging baghouse (A and C)

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 SO₂ emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

af. Emission Limitation:

1.34 lbs/hr CO from each charging baghouse (A and C)

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 SO₂ emission factor was calculated from the results of an October 1989 stack test at Jewell Coal and Coke Company located in Vansant, Virginia.

ag. Emission Limitation:

1.23 tpy CO as a rolling, 12-month summation from each charging baghouse (A and C)

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.

ah. Emission Limitation:

0.96 lb/hr VOC from each charging baghouse (A and C)

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.

ai. Emission Limitation:

0.88 tpy VOC as a rolling, 12-month summation from each charging baghouse (D and B)

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.

aj. Emission Limitation:

0.000048 lb/hr lead from each charging baghouse

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor of 0.0000001 lb lead/wet ton coal charged, times the wet tons of coal charged per hour. The emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

ak. Emission Limitation:

0.000112 lb HAPs / ton coal from each charging baghouse

Applicable Compliance Method:

Compliance shall be demonstrated by the 0.000112 pounds/ton HAP emission rate obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

al. Emission Limitation:

0.1072 lb/hr HAPs from each charging baghouse

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the emission factor, in pounds/ton, times the maximum tons of coal charged per hour. The HAPs emission factor was obtained from draft AP-42, Section 12.2, Table 12.2-21, dated July 2001.

am. Emission Limitation:

Particulate emissions from each charging baghouse exhaust shall not exceed 0.008 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated by the manufacturer's guaranteed emission limitations.

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

an. Emission Limitation:

Visible particulate emissions from the charging baghouse stacks 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).

ao. Emission Limitation:

0.0072 lb/hr Lead from the flat push hot car (FPHC) vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 12 or 29.

ap. Emission Limitation:

0.013 tpy Lead from the flat push hot car (FPHC) vented to multiclone dust collector

Applicable Compliance Method:

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

aq. Emission Limitation:

0.000239 lb HAPs /ton coal from each flat push hot car (FPHC) vented to multiclone dust collector

Applicable Compliance Method:

Compliance shall be demonstrated by the 0.00024 the pounds/ton HAP emission rate calculated from the results of the October 1989 stack test conducted at Jewell Coal and Coke located in Vansant, Virginia.

ar. 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).

as. Emission Limitation:

10.3 lbs/hr PM/PM₁₀ from the flat push hot car (FPHC) 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.

at. Emission Limitation:

18.8 tpy PM/PM₁₀ as a rolling, 12-month summation from the flat push hot car (FPHC) 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/PM₁₀ emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The PM/PM₁₀ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

au. Emission Limitation:

24 lbs/hr SO₂ from the flat push hot car (FPHC) 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.

av. Emission Limitation:

28.8 lbs/hr SO₂ as a 3 hour average from the flat push hot car (FPHC) 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.

aw. Emission Limitation:

43.8 tpy SO₂ as a rolling, 12-month summation from the flat push hot car (FPHC) 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 SO₂ emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The SO₂ emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

ax. Emission Limitation:

7.68 lbs/hr NO_x from the flat push hot car (FPHC) 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.

ay. Emission Limitation:

14.02 tpy NO_x as a rolling, 12-month summation from the flat push hot car (FPHC) 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_x emission factor, in lb/ton coal, times the tons of coal charged per month, divided by 2,000 pounds/ton. The NO_x emission factor shall be calculated from the results of the most recent performance test which demonstrated compliance.

az. Emission Limitation:

36.96 lbs/hr CO from the flat push hot car (FPHC) 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.

bb. Emission Limitation:

67.45 tpy CO as a rolling, 12-month summation from the flat push hot car (FPHC) 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.

bc. Emission Limitation:

96.0 lbs/hr VOC from the flat push hot car (FPHC) 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.

bd. Emission Limitation:

175.2 tpy VOC as a rolling, 12-month summation from the flat push hot car (FPHC) 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.

be. Emission Limitation:

Particulate emissions from the flat push hot car (FPHC) vented to multiclone dust collector exhaust shall not exceed 0.03 lb PM₁₀ / 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.

bf. Emission Limitation:

0.05 lb SO₂ / ton coal from the flat push hot car (FPHC) vented to multiclone dust collector

Applicable Compliance Method:

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

bg. Emission Limitation:

0.016 lb NO_x / ton coal from the flat push hot car (FPHC) vented to multiclone dust collector

Applicable Compliance Method:

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

bh. Emission Limitation:

0.077 lb CO / ton coal from the flat push hot car (FPHC) vented to multiclone dust collector

Applicable Compliance Method:

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

bi. Emission Limitation:

0.2 lb VOC / ton coal from the flat push hot car (FPHC) vented to multiclone dust collector

Applicable Compliance Method:

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

bj. Emission Limitation:

Visible particulate emissions from the flat push hot car (FPHC) 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).

bk. Emission Limitation:

Lead emissions shall not exceed 0.52 tons 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.

vi. 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.

bl. 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/record 8 keeping requirements in section A.III.11 of this permit.

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Modification Issued: 6/11/2004

Facility ID: **0773000182**
Emissions Unit ID: P902

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P902 - Two 100 oven nonrecovery coke oven batteries (A and C batteries)		Compliance with OEPA Air Toxics Policy; see Part II, term B.
Waste Gas from Coking Process with dry scrubber with baghouse and staged combustion		
Charging Operations with baghouse with traveling hood		
Pushing Operations with mobile hood with a multiclone		

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

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None

VI. Miscellaneous Requirements

None