217/782-2113

CONSTRUCTION PERMIT – PSD APPROVAL
NESHAP SOURCE – NSPS SOURCE

PERMITTEE

Gateway Energy & Coke Company, LLC
c/o SunCoke Company
Attn: Delauna Pack
Parkside Plaza
11400 Parkside Drive
Knoxville, Tennessee 37934

Application No.: 06070020
Applicant's Designation:
Subject: Heat Recovery Coke Plant
Date Issued: March 13, 2008
Location: Edwardsville Road, Granite City

I.D. No.: 119040ATN
Date Received: July 11, 2006

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a heat recovery coke plant, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the federal regulations for Prevention of Significant Deterioration of Air Quality (PSD) for the above referenced project, as described in the application, in that the Illinois Environmental Protection Agency (Illinois EPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the federal Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the findings and conditions which follow:

If you have any questions on this permit, please contact Jason Schnepp at 217/782-2113.

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

ECB:JMS:jws

cc: Region 3
Lotus Notes
CES

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1.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

BACT	Best Available Control Technology
CAAPP	Clean Air Act Permit Program
CFR	Code of Federal Regulations
CO	Carbon Monoxide
dscm	Dry Standard Cubic Meters
dscf	Dry Standard Cubic Feet
F	Fahrenheit
gr	Grains
H_2SO_4	Sulfuric Acid
HAP	Hazardous Air Pollutant
hr	Hour
HRSG	Heat Recovery Steam Generator
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
LAER	Lowest Achievable Emission Rate
lb	Pound
mg	Milligram
mo	Month
mmBtu	Million British Thermal Units
MSSCAM	Major Stationary Sources Construction and Modification (35 Part IAC 203), also known as Nonattainment New Source Review (NA NSR)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as would be measured by applicable testing or monitoring methods
$PM_{2.5}$	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as would be measured by applicable testing or monitoring methods
PSD	Prevention of Significant Deterioration (40 CFR 52.21)
scf	Standard Cubic Feet
scm	Standard Cubic Meter
SO_2	Sulfur Dioxide
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material
Yr	Year

2.0 FINDINGS

2.1 a. SunCoke, which owns Gateway Energy & Coke Company, LLC (Gateway), has applied for a permit for a heat recovery coke plant. The proposed Gateway plant will consist of 120 heat recovery coke ovens. The coke plant would have the capability of processing 1.1 million tons of coal per year and produce up to 740,000 tons of furnace coke per year. The coke would be used at the neighboring United States Steel (USS) – Granite City Works in the production of iron or sold and transported to other locations. Ancillary operations include coke crushing and screening, coal/coke handling and processing, and material storage. The plant also would recover the waste heat to produce steam for the Granite City Works.

b. USS, under a separate application (Application Number 06070088), has applied for a coke conveyance project. This project would involve a conveyor system to transfer coke from Gateway to USS and other ancillary equipment for handling of this coke at the Granite City Works.

c. For purposes of applicability of New Source Review regulations, the combination of Gateway's coke plant project and the USS coke conveyance project is considered to be a single overall project that is occurring at the Granite City Works. Among other things, this is because USS and Gateway are working together in the planning and development of the proposed coke plant, which would be built on property currently owned by USS and be constructed and operated to supply coke to USS pursuant to a long-term contract.

2.2 Gateway is located in an area designated nonattainment for ozone and $PM_{2.5}$. For purposes of nonattainment New Source Review (NA NSR) regulations, PM_{10} serves as a surrogate for $PM_{2.5}$, consistent with current USEPA guidance.

2.3 a. The project, i.e., the combination of the heat recovery coke plant and the coke conveyance system, is subject to 35 IAC 203: Major Stationary Sources Construction and Modification (MSSCAM) for $PM_{2.5}$. This is because the net emissions increase for the project exceeds 15 tons per year of $PM_{2.5}$, as summarized in Attachment 2.

b. i. This project is subject to PSD review as a major modification for PM and PM_{10} emissions. This is because the net emissions increase for the project exceeds 15 tons per year of PM_{10}, as summarized in Attachment 2.

ii. This project would not result in a significant increase in emissions of other PSD pollutants or non-attainment pollutants as summarized in Attachment 2.

2.4 After reviewing all the materials submitted by Gateway, the Illinois EPA has determined that the application for the heat recovery coke plant, as proposed, shows (i) compliance with all applicable state and federal emission standards, (ii) utilization of Best Available Control Technology (BACT) for emissions of PM and PM_{10}, and (iii) the Lowest Achievable Emission Rate (LAER) for emissions of $PM_{2.5}$.

2.5 The air quality analysis submitted for the overall project and reviewed by the Illinois EPA shows that the proposed project will not cause violations of the ambient air quality standards for PM_{10}.

2.6 Gateway and USS must obtain offsets for this project from existing sources in the St. Louis/Metro-East nonattainment area. Based on the permitted PM_{10} emissions of the overall project, 234.09 tons/year, at least 235 tons of PM_{10} emission offsets must be provided for this provided for this overall project; however, note US Steel and Gateway have agreed to provide 267.77 tons of emission offsets as originally proposed.

2.7 The Illinois EPA has considered alternatives to this project, as required by 35 IAC 203.306.

2.8 Pursuant to 35 IAC 203.305, US Steel has demonstrated that all major stationary sources which it owns or operates in Illinois are in compliance or on a schedule for compliance with all applicable state and federal air pollution control requirements. (Refer to Construction Permit 06070088, issued to US Steel for the Coke Conveyance System).

Note: SunCoke has stated that it does not own or operate any major sources in Illinois.

2.9 The Illinois EPA has determined that the application for the heat recovery coke plant, as proposed, shows that it would comply with all applicable Illinois Air Pollution Control Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

2.10 A copy of the applications and the Illinois EPA’s review of the applications and a draft of the permits were forwarded to a location in the vicinity of the plant, and the public was given notice and opportunity to examine this material, to submit comments, and to request and participate in a public hearing on this matter.

The Illinois EPA is issuing approval to construct the proposed heat recovery coke plant subject to the following conditions and consistent with the specifications and data included in the application. Any significant departure from terms expressed in the application would need to receive prior written authorization of the Illinois EPA.

3.0 GENERAL CONDITIONS

3.1 General Applicable Provisions and Regulations

3.1.1 Specific emission units at this plant are subject to particular regulations as set forth in Section 4 (Unit-Specific Conditions for Specific Emission Units) of this permit.

3.1.2 In addition, except as otherwise specified, emission units at this plant are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

b. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

c. No person shall cause or allow emissions of particulate matter (as filterable PM, as would be measured in accordance with 35 IAC 212.108), other than that of fugitive particulate matter, into the atmosphere to exceed the following limits during any one hour period: 22.9 mg/scm (0.01 gr/scf) from any process emissions unit located at integrated iron and steel plants in the vicinity of Granite City, as defined in 35 IAC 212.324(a)(1)(C), except as otherwise provided in 35 IAC 212.458 or in 35 IAC 212.443 and 212.446 [35 IAC 212.458(b)(7)].

3.1.3 Emissions Offsets

a. Gateway and USS shall maintain 267.77 tons of PM_{10} emission offsets generated by the following activities/projects:

Activity/Project	(Tons/Year)
COG Desulfurization Project	31.74[a]
Road Cleaning Program[b]	236.03[b]
Total:	267.77

a. The COG desulfurization project (excluding Boilers 1-10 shutdown and Slab Furnaces) results in a contemporaneous PM/PM_{10} emission decrease of 94.15 tons, as further addressed in Construction Permit

06070022. Only a portion of this decrease, 31.74 tons, is being relied upon for use as an offset. This portion of the decrease is no longer available for future netting transactions.

b. The specific requirements for the Road Cleaning Program are contained in Condition 3.6 of Construction Permit 06070088.

b. i. These emission reduction credits are provided by emission reductions occurring at the source (the Coke Oven Gas Desulfurization Project) and by emission reductions occurring in the vicinity of the source (the Road Cleaning Program, as addressed in Condition 3.6 of Construction Permit 06070088). The emission reductions have been relied upon by the Illinois EPA to issue the permits for this project and cannot be used as emission reduction credits for other purposes. The reductions have been made enforceable by this permit, Construction Permit 06070088, which addresses the coke conveyance system, and Construction Permit 06070022 which requires certain decreases in emissions in conjunction with the construction and operation of a coke oven gas desulfurization system for the existing by-product coke plant at USS.

ii. If the Permittee proposes to rely upon emission offsets from other sources or other activities/projects, the Permittee shall apply for and obtain a revision to this permit prior to relying on such emission offsets, which application shall be accompanied by detailed documentation for the nature and amount of those alternative emission offsets.

c. The implementation of measures to provide emission offsets shall begin prior to startup of the new heat recovery coke plant.

Condition 3.1.3 represents the actions identified in conjunction with this project to ensure that the project is accompanied by emission offsets and does not interfere with reasonable further progress for $PM_{2.5}$.

3.2 General Non-Applicability of Regulations of Concern

3.2.1 PSD/NAA NSR

a. The Permittee has addressed the applicability of 40 CFR 52.21, PSD and 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM). The limits established by this permit are intended to ensure that the

heat recovery coke plant addressed in this construction permit does not constitute a major modification of the source pursuant to these rules for NO_x, CO, VOM, SO_2, and H_2SO_4 emissions (See also Attachments 1 and 2).

3.3 General Work Practice Requirements

3.3.1 Operating Program

a. Pursuant to 35 IAC 212.309, emission units at the plant that are subject to a requirement in 35 IAC 212.304 through 212.308 or 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 IAC 212.310 and 212.312, and prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.

i. As a minimum the operating program shall include the information and elements specified by 35 IAC 212.310, including: (1) a detailed description of the best management practices utilized to control fugitive dust; (2) estimated frequency of application of dust suppressants by location; and (3) such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.

ii. This program shall also identify the specific control measures as may be needed to ensure that certain emission units comply with the opacity limits of 35 IAC 212.316.

iii. Pursuant to 35 IAC 212.312, this operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with 35 IAC Part 212 Subpart K and shall be submitted to the Illinois EPA for its review.

3.4 General Recordkeeping Requirements

3.4.1 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

3.5 General Reporting Requirements

3.5.1 Reporting and Notifications Associated with Emissions Tests

a. The Illinois EPA shall be notified prior to required emissions tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

b. At least 60 days prior to the actual date of required emissions testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:

   i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

   ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

   iii. The specific determinations of emissions and operation, which are intended to be made, including sampling and monitoring locations.

   iv. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods.

   v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

c. Copies of the Final Reports(s) for required emissions tests shall be submitted to the Illinois EPA within 30 days after

the test results are compiled and finalized. The Final Report shall include as a minimum:

i. A summary of results.

ii. General information.

iii. Description of test method(s), including description of sample points sampling train, analysis equipment, and test schedule.

iv. Detailed description of test conditions, including:

A. Process information.

B. Control equipment information, e.g., equipment condition and operating parameters during testing.

v. Data and calculations, including copies of all raw data sheets, opacity observation records and records of laboratory analyses, sample calculations, and data on equipment calibration.

3.5.2 Notification and Reporting of Deviations

a. Except as specified in a particular provision of this permit or in a subsequent CAAPP Permit for the plant, notifications and reports for deviation from applicable emission standards and control requirements shall include at least the following information: the date and time of the event, a description of the event, information on the magnitude of the deviation, a description of the corrective measures taken, and a description of any preventative measures taken to prevent future occurrences.

3.6 Authorization to Operate

a. The emission units addressed by this construction permit may be operated under this permit until issuance of the source’s CAAPP permit, provided a timely and complete CAAPP permit application has been submitted.

Note: Although the proposed Gateway plant is considered a single source with US Steel Corporation – Granite City Works (I.D. No. 119813AAI), for purposes of the Clean Air Act Permit Program (CAAPP), the plant will have a different responsible official, and will be covered by a separate CAAPP permit than USS.

b. The Permittee must submit its complete CAAPP application for the coke plant within 12 months after commencing operation of the plant, pursuant to Section 39.5(5)(x) of the Act.

4.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

4.1 Coke Oven Batteries

4.1.1 Description

The new coke oven batteries will be heat recovery type. The plant will consist of 120 ovens arranged in three 40-oven batteries. The ovens are the horizontal type and measure approximately 10 feet tall and 50 long.

The coke production cycle begins when a machine (pushing/charging machine) opens the door to the charging side of the oven and charges the oven with coal. Heat from the refractory starts the coking cycle. Heat recovery ovens are kept at negative pressure, with air being introduced into the oven to oxidize volatile matter and release the heat of combustion within the oven chamber. Partially combusted gases pass into a flue system beneath the oven floor where further combustion occurs. The gases then pass into an afterburner tunnel where combustion is completed. The afterburner tunnel system routes the hot gases to the heat recovery steam generators (HRSG). When the conversion from coal to coke is complete, the coke is pushed out of the oven and onto a mobile flat hot receiving or push car. This push car transports the hot coke to the quench tower where the coke is cooled with a water spray.

Particulate emissions occur when the coal is charged into the oven via the pushing/charging machine. These emissions are captured by a traveling hood/baghouse system on the pushing/charging machine. Because the ovens are operated at negative pressure, leaks of coke oven gases will not occur during the coking process, as may occur with conventional byproduct recovery ovens. After coking is complete, particulate emissions occur when the mass of hot coke is pushed from the oven onto the push car. These emissions are captured and controlled by a capture system and multicyclone on the push car. Particulate emissions occur when the hot coke is quenched in the quench tower. These emissions are controlled by a baffle system in the tower and by maintaining a low total dissolved solids content in the quench water.

In addition to recovering the thermal energy in the hot gas stream from the afterburner tunnels, the heat recovery steam generators cool the gas stream, preparing the stream for removal of sulfur dioxide (SO_2) and particulate. These are controlled by a spray dryer with lime injection followed by a fabric filter baghouse. Lime and water (calcium hydroxide slurry) are introduced into the spray dryer tower, where they mix with the gas, dry, and react with SO_2 to form $CaSO_3$ and $CaSO_4$. The baghouse downstream of the spray dryer removes entrained ash,

$CaSO_3$, $CaSO_4$, and unreacted lime. Carbon injection will be used to control gaseous mercury. The carbon will be injected into the gas stream upstream of the spray dryer absorber. The carbon with the mercury is then collected in the baghouse.

As described above, in the normal operating mode of the coke oven batteries, all the exhaust from the ovens go through the afterburner tunnel system, to heat recovery steam generators and then to the spray dryer/fabric filter system, before being discharged to the atmosphere via the main stack. Periodically, the heat recovery steam generators require inspection and maintenance. During this time, the portion of the afterburner tunnel associated with that heat recovery steam generator, each of which serves 20 ovens, will vent directly to atmosphere through one of the individual waste heat stacks.

4.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control
Coke Oven Processes		
Charging	Coal is added to the oven.	Traveling Hood and Baghouse System
Doors	A door is located on either end of the oven for adding coal and removing coke.	Work Practices Including Negative Pressure Design
Pushing	Coke is pushed out of the oven.	Traveling Hood and Multicyclone System
Main Stack	Primary disposition of gases generated during the coking process.	Afterburner Tunnels and Spray Dryer Absorber and Fabric Filter System with Carbon Injection
Individual Waste Heat Stacks	Alternative disposition of some or all of the coking gases during periodic inspection and necessary maintenance of one of the six heat recovery steam generators (HRSG) or the spray dryer absorber/filter system.	Afterburner Tunnel
Quenching	Water is sprayed onto the hot coke for the purpose of cooling.	Water Quality and Baffles

4.1.3 Applicable Provisions and Regulations

a. The “affected units” for the purpose of these unit-specific conditions, are the units described in Conditions 4.1.1 and 4.1.2.

4.1.3-1 Applicable Federal Standards (40 CFR 63, Subpart L)

Certain affected units are subject to the NESHAP for Coke Oven Batteries, 40 CFR 63 Subpart L and requirements of the General Provisions of the NESHAP, 40 CFR 63, Subpart A. The Permittee shall comply with all applicable requirements of 40 CFR Part 63 Subparts A and L. In particular, this standard applies to coke oven doors and charging. These types of coke oven batteries do not have topside port lids, offtake system(s), bypass/bleeder stacks, or collecting mains, which are also addressed by this regulation.

a. Doors

i. The owner or operator shall monitor and record, once per day for each 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 [40 CFR 63.303(b)(1)(ii)].

b. Charging

i. For charging operations, the owner or operator 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 [40 CFR 63.303(b)(2)].

ii. For charging operations, the owner or operator shall implement, for each day of operation, the work practices specified in 40 CFR 63.306(b)(6) and record the performance of the work practices as required in 40 CFR 63.306(b)(7) [40 CFR 63.303(b)(3)].

c. Work Practices

i. The owner or operator shall observe each coke oven door after charging and record the oven number of any door from which visible emissions occur. Emissions from coal spilled during charging or from material trapped within the seal area of the door are not considered to be a door leak if the owner or operator demonstrates that the oven is under negative pressure, and that no emissions are visible from the top of the door or from dampers on the door [40 CFR 63.303(c)(1)].

ii. Except as provided in 40 CFR 63.303(c)(2)(i) (see below), if a coke oven door leak is observed at any time during the coking cycle, the owner or operator shall take corrective action and stop the leak within

15 minutes from the time the leak is first observed. No additional leaks are allowed from doors on that oven for the remainder of that oven's coking cycle [40 CFR 63.303(c)(2)].

A. The owner or operator may take corrective action and stop the leak within 45 minutes (instead of 15 minutes) from the time the leak is first observed for a maximum of two times per battery in any semiannual reporting period [40 CFR 63.303(c)(2)(i)].

iii. The owner or operator shall not discharge or cause to be discharged to the atmosphere from charging operations any fugitive emissions that exhibit an opacity greater than 20 percent, as determined by the procedures in 40 CFR 63.309(j) [40 CFR 63.303(d)(1)].

iv. The owner or operator shall not discharge or cause to be discharged to the atmosphere any emissions of particulate matter (PM) from a charging emissions control device that exceed 0.0081 pounds per ton (lbs/ton) of dry coal charged, as determined by the procedures in 40 CFR 63.309(k) [40 CFR 63.303(d)(2)].

v. The owner or operator shall observe the exhaust stack of each charging emissions control device at least once each day of operation during charging to determine if visible emissions are present and shall record the results of each daily observation or the reason why conditions did not permit a daily observation. If any visible emissions are observed, the owner or operator shall:

A. Take corrective action to eliminate the presence of visible emissions [40 CFR 63.303(d)(3)(i)];

B. Record the cause of the problem creating the visible emissions and the corrective action taken [40 CFR 63.303(d)(3)(ii)];

C. Conduct visible emission observations according to the procedures in 40 CFR 63.309(m) within 24 hours after detecting the visible emissions [40 CFR 63.303(d)(3)(iii)]; and

D. Report any 6-minute average, as determined according to the procedures in 40 CFR 63.309(m), that exceeds 10 percent opacity as a

deviation in the semiannual compliance report required by 40 CFR 63.311(d) [40 CFR 63.303(d)(3)(iv)].

vi. The owner or operator shall develop and implement written procedures for adjusting the oven uptake damper to maximize oven draft during charging and for monitoring the oven damper setting during each charge to ensure that the damper is fully open [40 CFR 63.303(d)(4)].

vii. The Permittee shall comply with the work practice standards in 40 CFR 63.306, which require preparation and submittal of a written emission control work practice plan for each coke oven battery.

d. Requirements for Startups, Shutdowns, and Malfunctions

The Permittee shall comply with the requirements for startups, shutdowns, and malfunctions in 40 CFR 63.310, which at a minimum, shall include a written startup, shutdown, and malfunction plan.

4.1.3-2 Applicable Federal Standards (40 CFR 63, Subpart CCCCC)

Certain affected units are subject to the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks, 40 CFR 63 Subpart CCCCC and requirements of the General Provisions of the NESHAP, 40 CFR 63, Subpart A. The Permittee shall comply with all applicable requirements of 40 CFR Part 63 Subparts A and CCCCC. These particular coke oven batteries do not have soaking emissions or battery stacks, which are also addressed by this regulation.

a. Pushing

i. The Permittee shall not discharge to the atmosphere emissions of particulate matter from a control device applied to pushing emissions that exceed 0.04 lb/ton of coke [40 CFR 63.7290(a)(4)].

ii. The Permittee shall meet each operating limit in 40 CFR 60.7290(b)(1) through (4) that applies to you for a new or existing coke oven battery [40 CFR 63.7290(b)].

A. For each capture system applied to pushing emissions, the Permittee shall 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 [40 CFR 63.7290(b)(3)]; or

1. For each capture system that uses an electric motor to drive the fan, the Permittee shall maintain the daily average fan motor amperes at or above the minimum level established during the initial performance test [40 CFR 63.7290(b)(3)(i)]; and

2. For each capture system that does not use a fan driven by an electric motor, the Permittee shall maintain the daily average static pressure at the inlet to the control device at an equal or greater vacuum than the level established during the initial performance test or maintain the daily average fan revolutions per minute (RPM) at or above the minimum level established during the initial performance test [40 CFR 63.7290(b)(3)(ii)].

B. For each multicyclone, the Permittee shall maintain the daily average pressure drop at or below the minimum level established during the initial performance test [40 CFR 63.7290(b)(4)].

b. Quenching

i. The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L) [40 CFR 63.7295(a)(1)(i)];

ii. The Permittee shall use acceptable makeup water, as defined in 40 CFR 63.7352, as makeup water for quenching [40 CFR 63.7295(a)(2)].

iii. A. 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 [40 CFR 63.7295(b)(1)].

B. The Permittee shall wash the baffles in each quench tower once each day that the tower is used to quench coke, except as specified in 40 CFR 63.7295(b)(2)(i) and (ii) [40 CFR 63.7295(b)(2)].

1. 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 [40 CFR 63.7295(b)(2)(i)].

2. The Permittee shall continuously record the ambient temperature on days that the baffles were not washed [40 CFR 63.7295(b)(2)(ii)].

C. The Permittee shall inspect each quench tower monthly for damaged or missing baffles and blockage [40 CFR 63.7295(b)(3)].

D. The Permittee shall initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable [40 CFR 63.7295(b)(4)].

c. i. The Permittee shall visually inspect each oven prior to pushing by opening the door damper and observing the bed of coke [40 CFR 63.7293(a)(1)].

ii. 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 [40 CFR 63.7293(a)(2)].

d. The Permittee shall comply with the applicable operation and maintenance requirements in 40 CFR 63.7300; the general compliance requirements in 40 CFR 63.7310, including the requirement to develop a written startup, shutdown, and malfunction plan according to the provisions in 40 CFR 63.6(e)(3); and the applicable procedures for establishing operating limits in 40 CFR 63.7323.

4.1.3-3 <u>Applicable State Regulations (35 IAC 212.443: Coke Plants)</u>

a. Doors

i. Pursuant to 35 IAC 212.443(d)(1), no person shall cause or allow visible emissions from more than 10 percent of all coke oven doors at any time. The daily pressure readings required by 40 CFR 60.303(b)(1)(ii) may be used to show compliance with this standard, as this state standard is less

stringent than the standard for doors under the NESHAP (zero percent leaks).

b. Charging

Emissions of particulate matter from control equipment used to capture emissions during charging shall not exceed 0.046 g/dscm (0.020 gr/dscf). Testing to determine compliance with this requirement shall be conducted in accordance with the procedures set forth in 40 CFR part 60, Appendix A, Methods 1 through 5 incorporated by reference in 35 IAC 212.113 [35 IAC 212.443(b)(2)(A)].

c. Pushing

i. Uncaptured Emissions

A. Emissions of uncaptured particulate matter from pushing operations shall not exceed an average of 20 percent opacity for 4 consecutive pushes considering the highest average of six consecutive readings in each push. Opacity readings shall be taken at 15-second intervals, beginning from the time the coke falls into the receiving car or is first visible as it emerges from the coke guide whichever occurs earlier, until the receiving car enters the quench tower or quenching device. For a push of less than 90 seconds duration, the actual number of 15-second readings shall be averaged [35 IAC 212.443(c)(1)(A)].

B. Opacity readings shall be taken by a qualified observer located in a position where the oven being pushed, the coke receiving car and the path to the quench tower are visible. The qualified observer shall record opacity readings of emissions originating at the receiving car and associated equipment and the coke oven. Opacity readings shall be taken in accordance with the methods set forth in 40 CFR part 60, Appendix A, Method 9, incorporated by reference in 35 IAC 212.113, except that Section 2.5 for data reduction shall not be used. The qualified observer referenced in this subsection shall be certified pursuant to 40 CFR part 60, Appendix A, Method 9, incorporated by reference in Section 212.113 [35 IAC 212.443(c)(1)(B)].

Note: The requirement to read the opacity as the emissions rise and clear the top of the

coke battery gas main does not apply to these coke oven batteries, as they do not have gas mains.

ii. Emissions from Control Equipment

A. The particulate emissions from control equipment used to control emissions during pushing operations shall not exceed 0.040 pounds per ton of coke pushed. Testing to determine compliance shall be conducted in accordance with the methods set forth in 40 CFR part 60, Appendix A, Methods 1-5, incorporated by reference in 35 IAC 212.113 [35 IAC 212.443(c)(2)(A)] and the procedures specified by the NESHAP (40 CFR 63, Subpart CCCCC).

Note: The NESHAP (40 CFR 63, Subpart CCCCC) has more stringent test procedures, with sampling only during actual pushing operation.

B. The opacity of emissions from control equipment used to control emissions during pushing operations shall not exceed 20%. For a push of less than six minutes duration, the actual number of 15-second readings taken shall be averaged. Compliance shall be determined in accordance with 40 CFR part 60, Appendix A, Method 9, incorporated by reference in 35 IAC 212.113 provide however that Section 2.5 of 40 CFR part 60, Appendix A, Method 9 incorporated by reference in 35 IAC 212.113, for data reduction shall not be used for pushes of less than six minutes duration [35 IAC 212.443(c)(2)(B)].

d. Quenching

i. All coke oven quench towers shall be equipped with grit arrestors or equipment of comparable effectiveness. Baffles shall cover 95 percent or more of the cross sectional area of the exhaust vent or stack and must be maintained. Quench water shall not include untreated coke by-product plant effluent. All water placed on the coke being quenched shall be quench water [35 IAC 212.443(h)(1)].

ii. Total dissolved solids concentrations in the quench water shall not exceed a weekly average of 1200 mg/L [35 IAC 212.443(h)(2)]. Compliance with this requirement shall be demonstrated following the

procedures specified by the NESHAP (40 CFR 63, Subpart CCCCC).

Note: The NESHAP (40 CFR 63, Subpart CCCCC) has a more stringent standard (1100 mg/L) than this state rule.

e. Coke Oven Combustion Stack (Main Stack and Individual Waste Heat Stacks)

i. No person shall cause or allow the emission of particulate matter (as filterable PM, as would be measured in accordance with 35 IAC 212.110) from a coke oven combustion stack to exceed 110 mg/dscm (0.05 gr/dscf) [35 IAC 212.443(g)(1)].

ii. No person shall cause or allow the emission of particulate matter from a coke oven combustion stack to exceed 30% opacity. Compliance shall be determined in accordance with 40 CFR 60, Appendix A, Method 9, incorporated by reference in 35 IAC 212.113 [35 IAC 212.443(g)(2)].

4.1.4 Non-Applicability of Regulations of Concern

a. The affected units are not subject to 35 IAC Part 212 Subpart B, Visible Emission Limitations, because coke plants are exempted by 35 IAC 212.443(a).

b. The affected units are not subject to 35 IAC Part 212 Subpart L, Particulate Matter Emissions From Process Emission Units, because coke plants are exempted by 35 IAC 212.441.

c. This permit is issued based on the affected units not being subject to 35 IAC 219.301 as indicated in 35 IAC 219.302(c) because uncontrolled emissions of organic matter from the units are reduced by at least 85 percent by compliance with the NESHAP, 40 CFR 63 Subpart L.

d. This permit is issued based on the requirements of 35 IAC 212.443(d)(2), which addresses the availability of spare coke oven doors and a door repair facility not being applicable to these non-recovery coke oven batteries. This is because the ovens are designed to operate under negative pressure, unlike a recovery coke oven battery, so that the availability of spare doors is not necessary to prevent emissions from a battery due to door leaks.

4.1.5 Control Requirements and Work Practices

a. i. BACT/LAER Technology

A. Doors: The pressure in each oven or in a common battery tunnel shall be maintained at a negative pressure consistent with the NESHAP for doors.

B. Charging: Charging operations shall be controlled by a baghouse with traveling hood consistent with the NESHAP for charging operations (See also Condition 4.1.3-1(b).)

C. Pushing: Pushing operations shall be controlled by a mobile hood with a multicyclone consistent with the NESHAP for pushing operations. (See also Condition 4.1.3-2(a).)

D. Coking: Combustion gases from the coking process shall be routed to the HRSGs controlled by the spray dryer/fabric filter system, except (1) during inspection and maintenance of HRSGs, which shall comply with Condition 4.1.5(a)(i)(D)(1) below, (2) during inspection and maintenance of the spray dryer/fabric filter system, which shall comply with Condition 4.1.5(a)(i)(D)(2) below, and (3) monthly verification of operability of the lids for the waste heat stacks. The total duration of venting through waste heat stacks, with coking gases not controlled by the spray dryer/fabric filter system, shall not exceed 1872 stack-hours per 12-month rolling period (average 312 hours for the six waste heat stacks). These bypass periods and appropriate operation during periods of bypass shall also be addressed by the Startup Shutdown and Malfunction (SSM) Plan required for the plant by 40 CFR 63.6(e).

1. Combustion gases shall not be vented to the waste heat stacks for more than 192 hours per calendar year per vent stack. There shall be no more than one waste heat vent stack in use at any time. For these periods, the charge rates to the ovens affected by the bypass shall be reduced in accordance with the SSM Plan.

2. Combustion gases shall not be vented to the six individual waste heat stacks during inspection and maintenance of the spray dryer/fabric filter system for more than 120 hours per calendar year. During

this period, the charge rates to the ovens shall be reduced in accordance with the SSM Plan, which at a minimum shall provide that the average charge rate shall be no more than 42.5 tons wet coal per oven.

E. The filter material in the filter system for the main stack shall be a membrane material, micro-fiber material, micro-fiber capped composite material or other similar filter material that has enhanced performance for collection of fine particulate as compared to conventional woven or felt filter material. The filter material shall also have been demonstrated to provide greater than 99.99 percent reduction in emissions of filterable $PM_{2.5}$ or such better performance as the manufacturer will warrrant, as determined by the "Generic Verification Protocol for Baghouse Filtration Products," as used by USEPA's Environmental Technology Verification program for evaluation of filter materials or ASTM Standard D6830-02, Characterizing the Pressure Drop and Filtration Performance of Cleanable Filter Media, or other equivalent protocol.

F. Quenching: Quenching operations shall be controlled by a baffle system and clean quench water consistent with the NESHAP for quench operations. (See also Condition 4.1.3-2(b).)

ii. BACT/LAER Emission Limits

A. Emissions of particulate matter (filterable and condensable) from the charging baghouse shall not exceed 0.016 lb/ton of coal charged.

B. Emissions of particulate matter (filterable and condensable) from the pushing multicyclone shall not exceed 0.08 lb/ton of coke pushed.

C. Emissions of particulate matter from the main stack (coking baghouse) shall not exceed 0.0050 gr/dscf (filterable only) and 0.0110 gr/dscf (filterable and condensable).

D. Emissions of particulate matter (filterable and condensable) during bypass of the spray dryer/fabric filter control system shall not exceed 0.08 gr/dscf.

E. Emissions of particulate matter (filterable only) from the quench tower shall not exceed 0.044 lb/ton coal charged.

Condition 4.1.5(a) represents the application of the Best Available Control Technology and the Lowest Achievable Emission Rate.

b. Control of Mercury Emissions

i. The Permittee shall install, operate, and maintain an activated carbon injection system on the main stack for control of mercury emissions, which system shall be operated to comply with the following requirements for control of mercury emissions from the main stack. This system shall be designed to inject at least 10 pounds of activated carbon per million actual cubic feet of exhaust gases.

ii. This activated carbon injection system shall be operated at all times when the spray dryer/fabric filter system is operated, either at a maximum activated carbon injection rate of 10 pounds per million actual cubic feet of exhaust gases or to achieve an overall mercury control efficiency equivalent to 90 percent, in conjunction with other control measures for the batteries. That is, the Permittee may operate the system at an activated carbon injection rate lower than 10 pounds per hour when the system is used to comply with an emission rate equivalent to 90 percent control. Once such an emission rate has been established, the Permittee may also elect to meet such rate by a combination of carbon injection and other measures including injection of other sorbents or additives, coal specifications, and operational practices for the spray dryer.

c. Control of Other Pollutants

The emissions of other pollutants generated by the coking process shall be processed by the use of a lime spray dryer with a manufacturer's design control efficiency of at least 90% for SO_2 control, staged combustion for NO_x control, and good combustion practices for CO and VOM control.

4.1.6 <u>Production and Emission Limitations</u>

a. The amount of coal charged to the batteries shall not exceed 1,100,000 tons per year on a rolling 12-month basis, measured as wet coal charged to the batteries.

b. i. Emissions from the affected charging operation shall not exceed the following limits:

Pollutant	Emissions		
	(Lbs/Hour)	(Tons/Month)	(Tons/Year)
PM	1.8	0.67	8.06
PM_{10}	1.8	0.67	8.06
SO_2	0.04	0.02	0.16
CO	0.4	0.15	1.53
VOM	0.3	0.11	1.10
Lead	0.000014	----	0.00006

ii. Emissions from the affected pushing operation shall not exceed the following limits:

Pollutant	Emissions		
	(Lbs/Hour)	(Tons/Month)	(Tons/Year)
PM	7.2	2.68	31.41
PM_{10}	7.2	2.68	31.41
SO_2	12.3	4.58	53.66
NO_x	2.4	0.89	10.40
CO	7.9	2.94	34.49
VOM	2.5	0.93	10.95
Lead	0.065	----	0.0084
H_2SO_4	0.63	0.23	2.74

iii. A. Emissions from the main stack shall not exceed the following limits:

Pollutant	Emissions		
	(Lbs/Hour)	(Tons/Month)	(Tons/Year)
PM	28.3	10.53	124.00
PM_{10}	28.3	10.53	124.00
SO_2	227.7*	84.70	997.33
NO_x	125.0	46.50	547.50
CO	26.2	9.75	114.65
VOM	5.6	2.08	24.57
Lead	0.02	----	0.085
H_2SO_4	2.33	0.87	10.17
Mercury	**	**	**

* Compliance with this limit shall be determined as a 30-day rolling average, with emission monitoring for SO_2 in accordance with Condition 4.1.8-1(a).

** See Condition 4.1.6(b)(vi).

B. Limits for emissions of $PM_{2.5}$ may be set by the Illinois EPA after the Permittee has completed a series of emissions tests for $PM_{2.5}$, as provided for by Condition 4.1.7-2(a)(iii).

iv. Emissions from the individual waste heat stacks shall not exceed the following limits:

Pollutant	Emissions	
	(Lbs/Hour)*	(Tons/Year)
PM	34.3	30.24
PM_{10}	34.3	30.24
SO_2	379.5	355.21
NO_x	20.8	19.50
CO	4.4	4.08
VOM	0.9	0.87
Lead	0.065	0.06
H_2SO_4	19.4	18.12

* Lbs/Hour limits are for each individual waste heat stack. Tons/Year limits are total limits, for all waste heat stacks combined.

v. Emissions from the affected quenching operation shall not exceed the following limits:

Pollutant	Emissions	
	(Tons/Month)	(Tons/Year)
PM	6.6	65.70
PM_{10}	2.5	24.09
Lead	---	0.048

vi. Mercury emission limits will be set by the Illinois EPA once initial testing and monitoring for emissions of mercury are completed and at least six months worth of data for mercury emissions and mercury content of coal are collected, as required by Conditions 4.1.7-3 and 4.1.8-3(c).

Note: For this purpose, the Illinois EPA will issue a revised construction permit setting appropriate limits for mercury emissions not later than six months after receipt from the Permittee of the report that is required to be prepared and submitted pursuant to Condition 4.1.8-1(c)(iii).

c. Compliance with the annual limits in Condition 4.1.6 shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total). For purposes of this Condition, this running 12-month period shall begin following startup of the plant.

4.1.7-1 <u>NESHAP Testing Requirements</u>

a. The Permittee shall comply with the applicable performance tests and procedures in 40 CFR 63.309.

b. As required in 40 CFR 63.7(a)(2), the Permittee shall conduct a performance test to demonstrate compliance with each limit in 40 CFR 63.7290(a) for emissions of particulate matter from a control device applied to pushing emissions that applies within 180 calendar days after initial startup [40 CFR 63.7283 and 63.7320(a)].

c. i. The Permittee shall conduct performance tests to demonstrate compliance with the Total Dissolved Solids limit for quench water in 40 CFR 63.7295(a)(1) upon initial startup[40 CFR 63.7283 and 63.7320(b)].

ii. The Permittee shall comply with the applicable test methods and other procedures required to demonstrate initial compliance with the Total Dissolved Solids limit for quench water in 40 CFR 63.7325.

d. For each work practice standard and operation and maintenance requirement that applies, the Permittee shall demonstrate initial compliance within 30 calendar days after initial startup [40 CFR 63.7283 and 63.7320(c)].

4.1.7-2 <u>Requirements for Testing the Rates of Emissions</u>

a. The Permittee shall conduct emission testing as further provided by Condition 3.5.1 and 4.1.7-2(b) on the following schedule:

i. Initial emission testing shall be conducted as follows, within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the coke batteries:

A. Main stack: PM_{10}, NO_x, CO, VOM, lead, mercury and sulfuric acid mist.

B. Charging baghouse stacks: PM_{10}.

C. Pushing multiclone stacks: PM_{10} and lead.

Note: Testing of the SO_2 emissions of the main stack will occur during the certification of the continuous emissions monitoring system required by Condition 4.1.8-1(a).

ii. Emission testing shall be conducted for one of the six individual waste heat stacks for PM_{10}, SO_2, lead, and mercury when the stack is in use for by-pass of the associated heat recovery steam generator (HRSG)

by no later than the completion of the fourth scheduled by-pass of an HRSG for purposes of inspection and maintenance.

iii. A series of emissions tests shall be conducted for the main stack for $PM_{2.5}$, PM_{10} and PM, with testing conducted so that data is collected from at least three tests that are separated by approximately one year (between 9 and 15 months apart). For this purpose, the first test may be combined with the initial testing required by Condition 4.1.7-2(a)(i), provided however that this testing shall be completed no later than 42 months after startup of the coke plant.

iv. Testing to verify continuing compliance shall be conducted between 18 and 24 months after the initial emission testing for the main stack required by Condition 4.1.7-2(a)(i):

A. Main stack: NO_x, CO, VOM and lead, and, if requested by the Illinois EPA, sulfuric acid mist.

B. The charging baghouse stack (PM_{10}) and/or the pushing multiclone stack (PM_{10} and lead) if such testing is requested by the Illinois EPA.

b. i. The following methods and procedures shall be used for testing of emissions, unless use of another method developed or supported by USEPA is approved by the Illinois EPA as part of the approval of the test plan. Refer to 40 CFR Part 51, Appendix M and 40 CFR Part 60, Appendix A, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
PM	USEPA Method 5
PM_{10} (filterable)	USEPA Method 201A*
PM_{10} (total, filt. & condens.)	USEPA Method 201A* & 202
Sulfur Dioxide	USEPA Method 6 or 6C
Nitrogen Oxides	USEPA Method 7 or 7E
Carbon Monoxide	USEPA Method 10
VOM	USEPA Method 25A
Lead	USEPA Method 12 or 29
Sulfuric Acid Mist	USEPA Method 8A
Mercury	USEPA Method 101A (40 CFR 61, Appendix B); USEPA Method 29 (40 CFR

60, Appendix A); or
ASTM Method D6784-02

* The Permittee may also use Method 5 instead of Method 201A, provided that the measured results are considered PM_{10}.

ii. Testing for emissions of filterable $PM_{2.5}$ shall be conducted using an applicable Reference Method, as adopted by USEPA in 40 CFR Part 51, Appendix M, or in 40 CFR Part 60, Appendix A. If USEPA has not adopted a Reference Method for testing of filterable $PM_{2.5}$ when testing must be performed, testing for filterable $PM_{2.5}$ shall be conducted using an appropriate Conditional Test Method developed by USEPA, e.g., Conditional Test Method 39 or 40, or a Reference Method proposed by USEPA, subject to review by the Illinois EPA as part of the review of the test plan (refer to Condition 3.5.1).

c. i. During the period when required testing for PM emissions of the pushing multiclone stacks is conducted, the Permittee shall take grab samples of the exhaust of the pushing control system and have these samples analyzed for NO_x, SO_2, CO and VOM emissions.

ii. Results of the analysis shall be submitted with other required test reports.

d. i. After completion of the testing for emissions of $PM_{2.5}$ required by Condition 4.1.7-2(a)(iii) but not later than 42 months after initial startup of the coke batteries, the Permittee shall submit a detailed report to the Illinois EPA that provides an assessment of the $PM_{2.5}$ emissions of the main stack that at a minimum includes: the data that has been collected for $PM_{2.5}$ emissions; information confirming proper design for control of $PM_{2.5}$; information confirming proper operation of the control system for effective control of $PM_{2.5}$ emissions while emission data was being collected; and other relevant information related to the $PM_{2.5}$ emissions from the main stack.

ii. Unless establishment of emission limits in terms of $PM_{2.5}$ would be inconsistent with applicable laws or rules at such time, when the Permittee submits the above report, the Permittee shall also apply for a revision to this permit to include limits for emissions of $PM_{2.5}$ from the main stack if the testing conducted pursuant to Condition 4.1.7-2(a)(iii) and

other relevant information demonstrate that for the main stack: reliable and reproducible measurements of $PM_{2.5}$ emissions can be made so as to enable limits to be set in terms on $PM_{2.5}$; implementation of such limits on a continuing basis would be practical; and such limits would be significantly lower than limits in terms of PM_{10} so as to justify any additional effort that would accompany such limits. These limits for emissions of $PM_{2.5}$ shall reflect the lowest rates of emissions that are achievable on a continuing basis with the combination of control devices on the main stack. In addition, in the report required above, the Permittee shall provide its recommended emission limits for $PM_{2.5}$, with the specific data, calculations and the rationale that support those limits.

4.1.7-3 Requirements for Coal Sampling and Analysis

a. The Permittee shall collect monthly composite samples of the coal charged in the ovens.

b. i. The Permittee shall also collect a composite sample of the coal charged in the ovens each time the coal blend is changed. The individual samples for each monthly composite shall be collected from the primary conveyor belt that feeds the batteries.

ii. A sufficient number of individual samples shall be collected so that each composite sample is representative of the average quality of coal charged to the ovens during each calendar month.

c. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal.

d. Each monthly composite sample of coal shall be analyzed for sulfur, mercury and chlorine content (percent by weight).

e. The analytical methods for sulfur content, mercury content and chlorine content shall be: ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; D3684 Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method or other appropriate ASTM method such as D6722-01; D2361 Standard Test Method for Chlorine in Coal or other appropriate ASTM method such as D6721-01. Alternative, equivalent methods may be used upon written approval from the Illinois EPA.

4.1.8-1 Continuous Emissions Monitoring Requirements

a. The Permittee shall install, calibrate, operate, and maintain SO_2 continuous emission monitoring system(s) (CEMS) for the main stack.

i. This monitoring system shall be operated and maintained in accordance with relevant requirements of 40 CFR 60.13, including being operated in accordance with Performance Specification 6 of 40 CFR 60, Appendix B, and Quality Assurance Procedure 1 of 40 CFR 60, Appendix F.

ii. This monitoring system shall be installed and operational when the initial emission testing specified by Condition 4.1.7-2(a)(i) is performed or is required to be performed and shall thereafter be operated at all times except for continuous monitoring system maintenance, breakdowns and repairs and during the periodic bypass of the main stack, when the control system is undergoing inspection and maintenance.

iii. The Permittee shall maintain records for the continuous monitoring system, including recorded emission concentrations and records of maintenance, calibration, and operational activity associated with the system.

iv. The Permittee shall submit semi-annual monitoring reports to the Illinois EPA for this emission monitoring system in accordance with relevant reporting requirements of the NSPS for continuous emissions monitoring systems, 40 CFR 60.7(c) or (d).

b. The Permittee shall install, calibrate, operate and maintain a continuous emissions monitoring system (CEMS) for PM on the main stack.

i. The Permittee shall operate and properly calibrate and maintain this system in accordance with relevant requirements of the NSPS for monitoring systems, 40 CFR 60.13, and applicable USEPA performance specification and in a manner that is generally consistent with published USEPA guidance for use of PM CEMS. The Permittee shall also operate and maintain this system according to a site-specific monitoring plan, which shall be submitted to the Illinois EPA for its review and comment at least 90 days before the initial startup of the monitoring system. With this submission, the Permittee shall submit the proposed type of monitoring equipment and

proposed sampling location, which shall be approved by the Illinois EPA prior to installation of the PM CEMS.

ii. This system shall be operated on a trial basis for a period of three years, during which time it shall not be used to directly determine compliance but shall be used for compliance assurance monitoring if appropriate based on the quality of data that the system provides. After this trial period, this PM CEMS shall continue to be operated unless the Illinois EPA determines that this system does not provide accurate, reliable data in accordance with USEPA approved performance specifications for PM CEMS, based on operation of the system during the trial period, including the results of periodic emissions testing in accordance with Condition 4.1.7-2 (at least three tests at about one year intervals during the trial period).

iii. If a CEMS for $PM_{2.5}$ becomes available and is approved by the USEPA for an exhaust stream that is similar to the main stack and USEPA adopts a performance specification for $PM_{2.5}$ CEMS, then the Permittee shall install a $PM_{2.5}$ CEMS and begin monitoring for $PM_{2.5}$ within one year of the completion of such actions by USEPA. The operation of this $PM_{2.5}$ CEMS shall also be subject to the provisions of Conditions 4.1.8-1(b)(i) and (ii) upon installation and the $PM_{2.5}$ CEMS shall only replace the PM CEMS on the main stack after the Illinois EPA determines that $PM_{2.5}$ CEMS is able to reasonably provide accurate and reliable data for particulate emissions measured as $PM_{2.5}$.

iv. The Permittee shall submit all PM CEMS and emission test data (including but not limited to emission test data to calibrate this CEMS) in electronic format (or other format specified by the Illinois EPA) to the Illinois EPA on a semi-annual basis, together with the semi-annual reports regarding its PM and $PM_{2.5}$ monitoring.

c. The Permittee shall install, calibrate, operate and maintain a monitoring system for mercury emissions from the main stack.

i. This monitoring shall be conducted with a mercury sorbent trap monitoring system in accordance with 40 CFR 75.15 (as adopted by USEPA, even if subsequently vacated) or, alternatively, with an approved continuous mercury emissions monitoring system in accordance with 40 CFR 75.81 (as adopted by USEPA,

even if subsequently vacated). In addition to other applicable requirements of 40 CFR Part 75, the Permittee shall submit semi-annual monitoring reports to the Illinois EPA for this monitoring in accordance with relevant reporting requirements of 40 CFR Part 75.

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

iii. After completion of initial monitoring for emissions of mercury but not later than nine months after beginning operation of the monitoring system, the Permittee shall apply for a revision to this permit to include limits for mercury emissions, which limits reflect emission rates that are achievable with effective control by the combination of the spray dryer, carbon injection system and baghouse and are based on the emission data that has been collected and relevant information about the mercury content of the coal supply to the plant and operation of control devices, including the activated carbon injection system. With this application, the Permittee shall submit a detailed report to the Illinois EPA that provides an assessment of the mercury emissions of the plant and the effectiveness of the control system that at a minimum includes: the data that has been collected for mercury emissions; information confirming proper design of the activated carbon injection system for control of mercury; information confirming proper operation of the control system for effective control of mercury emissions while emission data was being collected; the results of the analyses of coal for mercury content required by Condition 4.1.7-3, with estimates of the theoretical emissions of mercury in the absence of any control; and other information that the Permittee considers relevant, together with the Permittee’s recommended emission limits for mercury, with the specific data, calculations and the rationale for those limits.

iv. Notwithstanding Condition 4.1.5(b)(ii), as reasonably needed for the specific purpose of evaluating the effectiveness of activated carbon in controlling emissions of mercury and proposing limits for mercury emissions, during the initial period of data collection for mercury emissions, the Permittee may inject activated carbon at a rate less than 10 pounds per hour, provided that such operation occurs in accordance with an evaluation plan that the Permittee has provided to the Illinois EPA at least 30 days in advance and the data and findings from such operation are included in the above report.

4.1.8-2 Continuous Operational Monitoring Requirements

a. i. The Permittee shall install, operate, and maintain equipment to monitor the pressure drop across each charging baghouse.

ii. The Permittee shall operate, calibrate and maintain this monitoring system in accordance with good monitoring practices, following the manufacturer's recommended operating and maintenance procedures or such other procedures for such devices as otherwise necessary to assure reliable operation of such systems and keeping records for the operation, maintenance and repair of such systems.

b. The Permittee shall install, operate and maintain a Bag Leak Detector System (BLDS) to monitor the operation of the baghouse on the main stack. The BLDS shall be installed, operated and maintained in a manner that is consistent with the provisions of 40 CFR 63.7505(d) and 63.7525(i) (i.e., as adopted by USEPA at 69 FR 55218, Sept. 13, 2004 and 71 FR 70651, Dec. 6, 2006, prior to vacatur), provided however, that the Illinois EPA shall substitute for the Administrator of the USEPA.

c. NESHAP Monitoring for Pushing

i. The Permittee shall comply with the applicable monitoring requirements in 40 CFR 63.7330 and 63.7332, which requires a continuous monitoring system for the pressure drop of the multiclone control system for pushing.

ii. The Permittee shall comply with the applicable installation, operation and maintenance requirements for such monitors in 40 CFR 63.7331.

4.1.8-3 Instrumentation Requirements

a. The Permittee shall install, operate, and maintain devices to measure the gas temperature of each afterburner tunnel system. Data measured by these devices shall be recorded at least twice per day.

b. The Permittee shall install, operate, and maintain equipment to measure the pressure drop across the baghouse on the main stack. Data measured by this device shall be recorded at least twice per day.

c. The Permittee shall install, operate, and maintain instrumentation for the setting for or rate of sorbent injection rate of the activated carbon injection system. Data measured by this device shall be recorded at least twice per day and whenever the setting for the activated carbon injection system is adjusted.

d. The Permittee shall install, operate, and maintain sensors on each waste heat stack to detect when the stack lid, which controls flow from the stack, is open, or partially opened, either due to relieving system pressure or manual opening of the stack by the operator. These sensors shall be instrumented to the operator and an alarm sounded, or other mechanism such as indicator lights or control screen indicators, when there is gas flow through any of the waste heat stacks.

e. The Permittee shall operate and maintain all instrumentation required by Condition 4.1.8-3 in accordance with good monitoring practices, following the manufacturer’s recommended operating and maintenance procedures or such other procedures for such devices as otherwise necessary to assure reliable operation of such devices and keeping records for the operation, maintenance and repair of such devices.

4.1.9 Recordkeeping Requirements

a. The Permittee shall maintain the following operating records for the affected units:

i. Records of the amount of coal charged to the batteries on a rolling 12-month basis, measured as wet coal charged to the batteries (tons/year).

ii. Records for the usage of sorbents by the activated carbon injection system (pounds/month, by type).

iii. Monthly records of the results of the analyses for sulfur content, mercury content, and chlorine content of the coal charged.

iv. Operating records for the Waste Heat Stacks

A. Daily records for each waste heat stack for any periods when there was venting, i.e., exhaust flow through the stack.

B. Records for periods when emissions are vented through waste heat stacks that at a minimum include the following:

I. The date, time, and duration of each bypass event, with the identity of the stack that is involved and the reason for the bypass event; and

II. Summary records for the duration of venting for each individual stack and all stacks to verify compliance with applicable operating limitations.

b. The Permittee shall maintain the following records related to the emissions of the affected units or groups of affected units for which limits are set in Condition 4.1.6(b), so as to address compliance with those limits. These records shall also address emissions of mercury from the coking process:

i. Other than for SO_2 emissions from the main stack, for which continuous emissions monitoring is performed, the standard emission factors (lbs/ton) used by the Permittee for estimating controlled emissions from the unit, which information shall be based on site-specific test data, representative test data or emission determination methodology published by USEPA, with supporting explanation and calculations.

ii. For periods when a unit or group of units is not operating normally, if not otherwise required by applicable regulations, identification of each such period, with detailed information describing the operation of the unit(s), the potential consequences for additional emissions from the unit(s), the potential of any excess emissions from the affected unit(s), the actions taken to restore normal operation, and any actions taken to prevent similar events in the future.

iii. Emissions of pollutants for which limits are set (tons/month and tons/year), with supporting calculations.

c. The Permittee shall comply with the applicable recordkeeping requirements in the NESHAP, 40 CFR 63.311, 63.7342 and 63.7343.

d. The Permittee shall maintain a file that contains information, with supporting documentation, that confirms that the filter material in the baghouse for the main stack complies with Condition 4.1.5(a)(i)(E).

4.1.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of deviations of an affected unit with the permit requirements of this section (Section 4.1). These reports shall contain the information specified in Condition 3.5.2, including a description the probable cause of such deviations, and any corrective actions or preventive measures taken.

i. Emissions or operation of the affected units in excess of the limits specified in Condition 4.1.6 shall be reported within 30 days of such occurrence.

ii. Any event in which the duration of venting through a waste heat stack is 60 minutes or longer, other than for scheduled inspection and maintenance of heat recovery steam generators or control equipment shall be reported within 10 days of such occurrence.

iii. Other deviations shall be reported with the periodic compliance reports required by the NESHAP. These reports shall also include a listing of the above deviations, for which individual deviation notices have been submitted, with the date of the deviation notice.

b. The Permittee shall comply with the applicable reporting requirements in 40 CFR 63.311 for the affected units.

c. The Permittee shall comply with the requirements for reporting of deviations in 40 CFR 63.7336.

d. The Permittee shall comply with the applicable notification requirements in 40 CFR 63.7340.

e. The Permittee shall comply with the applicable reporting requirements in 40 CFR 63.7341.

f. For venting through the waste heat stacks, the Permittee shall submit periodic reports to the Illinois EPA that include the following information and, as applicable for any venting that was a deviation, other applicable information pursuant to Condition 3.5.2. These reports shall be submitted on at least a semi-annual basis with the periodic compliance reports required by the NESHAP.

   i. For each waste heat stack, the total duration of venting during the reporting period and a listing of each period when venting occurred, with date, time, duration (minutes), description and reason for venting.

   ii. For each period in which venting from waste heat stack(s) occurred as part of inspection and maintenance of a heat recovery steam generator or control equipment, the date, time and duration of venting, the waste heat stack(s) that were involved, a general description of the inspection and maintenance activity that was performed, a description of aspects of or events during inspection and maintenance that acted to prolong venting, a description of measures that the Permittee took to address such circumstances, a description of actions that the Permittee plans to address the potential for such circumstances in the future, and other relevant information to demonstrate that the duration of venting associated with the inspection and maintenance activity was not excessive.

   iii. For each operational limit that applies to venting from waste heat stacks, information that addresses compliance with such limit.

4.2 Material Handling Operations

4.2.1 Description

Trucks deliver coal to the plant and unload the coal within an enclosure. Wet suppression is used to minimize particulate emissions. The coal is crushed within an enclosure and transferred to a silo for storage until needed at the coke oven batteries.

The quenched coke from the ovens is crushed and then screened. These operations are conducted inside a building which is vented to a baghouse. The coke that is sized for use in a blast furnace is transferred to an enclosure at US Steel. The undersize material is transferred to a bunker.

Certain material, e.g., quenched coke and coke breeze are considered wet materials either because of their inherent moisture or moisture added by water sprays so that specific practices to control dust are not needed.

4.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Coal Unloading	Coal is delivered to the plant and unloaded.	Enclosure, wet suppression
Coal Storage Silo	Coal is stored in a silo to minimize dust and maintain proper moisture content.	Work practices
Coal Conveyors	Conveyors move the coal from one area of the plant to another.	Enclosed transfer points and covered belts with exception of those connected to the tripper which are unenclosed/un-covered for safety, moisture content
Coal Sizing	Coal enters the plant in various sizes. Crushing/Screening sorts the coal into preferred sizes.	Enclosure, moisture content

Emission Unit	Description	Emission Control Equipment
Coke Conveyors	Conveyors move the coke form one area of the plant to another.	Enclosed transfer points and covered belts with exception of those at coke wharf which are unenclosed/un-covered for safety, moisture content
Coke Crushing and Screening	Quenched coke is crushed and screened.	Enclosure, baghouse
Emergency Coke Storage Pile	An emergency coke storage pile is available in the event processing through the screening and crushing area is not available.	Work practices

4.2.3 Applicable Provisions and Regulations

a. An “affected unit” for the purpose of these unit-specific conditions, is a material handling operation described in Conditions 4.2.1 and 4.2.2.

b. The affected units are subject to 35 IAC Part 212 Subpart K: Fugitive Particulate Matter.

i. All unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods [35 IAC 212.307].

ii. Crushers, screening operations, conveyor transfer points, and conveyors shall be sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method in accordance with the operating program (See Condition 3.3) [35 IAC 212.308].

iii. Emissions from the particulate collection equipment operated pursuant to 35 IAC 212.304 through 212.310 and 212.312, shall not exceed 68 mg/dscm (0.03 gr/dscf) [35 IAC 212.313] (See also Condition 4.2.3(d)).

iv. No person shall cause or allow fugitive particulate matter emissions generated by the crushing or screening of coke or coal to exceed an opacity of 10 percent [35 IAC 212.316(b)].

v. No person shall cause or allow fugitive particulate matter emissions from any storage pile to exceed an opacity of 10 percent , to be measured four feet from the pile surface [35 IAC 212.316(d)].

vi. Unless an emission unit has been assigned a particulate matter, PM_{10}, or fugitive particulate matter emissions limitation elsewhere in 35 IAC 212.316 or in 35 IAC Part 212 Subpart R or S, no person shall cause or allow fugitive particulate matter emissions from any emission unit to exceed an opacity of 20 percent [35 IAC 212.316(f)].

c. i. The affected units are each subject to 35 IAC 212.324(b), which provides no person shall cause or allow the emission into the atmosphere, of PM_{10} from certain process emission units to exceed 68.7 mg/scm (0.03 gr/scf) during any one hour period.

ii. Pursuant to 35 IAC 212.324(d), the above mass emission limit shall not apply to an emission unit if it has no visible emissions other than fugitive particulate matter, provided, however, that this exception is not a defense to a finding of violation of the above mass limit determined by emission testing.

d. The affected units are subject to 35 IAC 212.458: Emission Units in Certain Areas.

i. The affected units are subject 35 IAC 212.458(b)(7), which provides that no person shall cause or allow emissions of particulate matter (as filterable PM, as would be measured in accordance with 35 IAC 212.108), other than that of fugitive particulate matter, into the atmosphere to exceed, during any one hour period, 22.9 mg/scm (0.01 gr/scf) from any process emissions unit, except as otherwise provided in 35 IAC 212.458 or in 35 IAC 212.443 and 212.446.

e. The affected units, excluding the units identified in Condition 4.2.4(b) and units subject to 35 IAC Part 212 Subpart R which are excluded by 35 IAC 212.441, are subject to 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar new process emission units, at a source or premises, exceeds the allowable emission rates specified in 35 IAC

212.321 (c) or calculated in accordance with 35 IAC 212.321(b).

f. Affected units engaged in handling and processing coal shall comply with applicable requirements of the NSPS for Coal Preparation Plants, 40 CFR 60, Subpart Y, and related provisions of 40 CFR 60, Subpart A.

i. Pursuant to the NSPS, the opacity of the exhaust from coal processing and conveying equipment, coal storage systems (other than open storage piles), and coal loading systems shall not exceed 20 percent [40 CFR 60.252(c)].

ii. At all times, the Permittee shall maintain and operate affected units that are subject to NSPS, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions, pursuant to 40 CFR 60.11(d).

4.2.4 Non-Applicability of Regulations of Concern

a. The affected units are not subject to the NSPS for Nonmetallic Mineral Processing Plants, 40 CFR Part 60 Subpart OOO, because coal and coke are not nonmetallic minerals as defined in 40 CFR 60.671.

b. The storage piles and associated operations and the coal/coke handling operations are not subject to 35 IAC 212.321 pursuant to 35 IAC 212.323, which provides that 35 IAC 212.321 shall not apply to emission units, such as stock piles, to which, because of the disperse nature of such emission units, such rules cannot reasonably be applied.

4.2.5 Control Requirements and Work Practices

a. BACT/LAER Technology

i. PM and PM_{10} emissions from an affected unit handling a wet material shall be controlled by the following measures. For this purpose, wet material is a material that has sufficient moisture during normal operation to minimize the potential for direct emissions.

A. Maintaining the material with adequate moisture to prevent visible emissions directly from such unit during the handling, storage or load out of the material.

B. Collection of spilled material that could become airborne if it dried or were subject to vehicle traffic as part of the Program for Control of Fugitive Dust required by Condition 4.3.

ii. PM and PM_{10} emissions from an affected unit handling a dry material, other than coal transfer and storage operations or a storage pile for dry material and handling operations associated with the storage pile, shall be controlled by:

A. Enclosure of the unit so as to prevent visible fugitive emissions, as defined by 40 CFR 60.671, from the affected unit.

B. Aspiration to a control device designed to emit no more than 0.005 grains/dry standard cubic foot (gr/dscf) (filterable only) and 0.008 gr/dscf (filterable and condensable), which device shall be operated in accordance with good air pollution control practice to minimize emissions. For this purpose, the control device shall be a baghouse or other filtration type device unless the Permittee demonstrates and the Illinois EPA concurs that another type of control device is preferable due to considerations of operational safety.

iii. PM and PM_{10} emissions from coal transfer and storage operations and storage piles for dry material, including material handling operations associated with the piles, shall be controlled by application of water or other dust suppressants so as to minimize fugitive emissions to the extent practicable. For this purpose, there shall either:

A. Be no visible emissions from the affected unit, as determined in accordance with USEPA Method 22, or

B. A nominal control efficiency of 90 shall be achieved from the uncontrolled emission rate, as follows, as determined using appropriate USEPA emission factors for particulate emissions from handling of a material dry, in the absence of any control of emissions, and engineering analysis and calculations for the control measures that are actually present.

Condition 4.2.5(a) represents the application of the Best Available Control Technology and the Lowest Achievable Emission Rate.

b. Storage piles shall be equipped and operated with adjustable stacker(s), rotary stacker(s), ladders or other comparable devices to minimize the distance that material drops when added to the pile and minimize the associated PM emissions.

c. The Permittee shall implement and maintain control measures for the affected units that minimize visible emissions of PM and provide assurance of compliance with the applicable limits and standards in Conditions 4.2.3 and 4.2.5(a) and (b).

d. The affected units, including associated control equipment shall be operated and maintained in accordance with good air pollution control practice to minimize emissions.

4.2.6 Production and Emission Limitations

a. i. The emissions of fugitive dust from coal handling, storage and processing shall not exceed 4.91 tons/year of PM and 2.34 tons/year of PM_{10}.

ii. The emissions of fugitive dust from coke handling, processing and storage shall not exceed 2.06 tons/year of PM and 0.98 tons/year of PM_{10}.

iii. Emissions coke crushing and screening shall not exceed 9.39 tons/year of PM/PM_{10}.

b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

4.2.7 Testing Requirements

a. Initial Performance Testing

i. Within 60 days after achieving the maximum production rate at which each affected unit subject to NSPS will be operated, but not later than 180 days after initial startup of each such unit, the Permittee shall have emissions tests conducted at its expense as follows below by an approved testing service under unit operating conditions that are representative of maximum emissions.

ii. The following USEPA methods and procedures shall be used for PM and opacity measurements as specified in 40 CFR 60.254:

Opacity - Method 9, with measurements performed by a certified observer.

iii. Test plan(s), test notifications, and test reports shall be submitted to the Illinois EPA in accordance with Condition 3.5.

b. Periodic Testing

i. A. The Permittee shall have the opacity of the emissions of the affected units, during representative weather and operating conditions, determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below.

1. If emissions are normally visible from a unit when it is in operation, as determined by USEPA Reference Method 22, opacity testing shall be conducted at least annually.

2. Upon written request by the Illinois EPA, such testing shall be conducted for specific affected units within 45 calendar days of the request or on the date agreed upon by the Illinois EPA, whichever is later.

B. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 5.0 percent.

C. 1. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).

2. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.

D. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.

E. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:

1. Date and time of testing.

2. Name and employer of qualified observer.

3. Copy of current certification.

4. Description of observation conditions, including recent weather.

5. Description of the operating conditions of the affected processes.

6. Raw data.

7. Opacity determinations.

8. Conclusions.

ii. Unless otherwise specified for the affected units by the source's CAAPP permit:

A. Within 90 days of a written request from the Illinois EPA, the Permittee shall have the PM emissions at the stacks or vents of affected units, as specified in such request, measured during representative operating conditions, as set forth below.

B. 1. Testing shall be conducted using appropriate USEPA Test Methods, including Method 5 or 17 for PM emissions.

2. Compliance may be determined from the average of three valid test runs, subject to the limitations and conditions contained in 35 IAC Part 283.

C. The Permittee shall submit a test plan to the Illinois EPA at least 60 days prior to testing, which plan shall include the information for test plans specified by General Condition 3.5.

D. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notification if it interferes with the Illinois EPA's ability to observe the testing.

E. The Permittee shall expeditiously submit Final Report(s) for required emission testing to the Illinois EPA, no later than 90 days after the date of testing. These reports shall include the information specified in Condition 3.5 and the following information:

1. A summary of results.

2. Detailed description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

3. Detailed description of the operating conditions of the affected process during testing, including operating rate (tons/hr) and the control measures being used.

4. Detailed data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

5. Representative opacity data (6-minute average) measured during testing.

c. i. Within 180 days of initial startup of the coke plant, the PM_{10} emissions from the baghouse controlling the coke screening operation shall be measured during conditions which are representative of maximum emissions.

ii. The following methods and procedures shall be used for testing of emissions, unless another method is

approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
PM_{10} (filterable)	USEPA Method 201A*

* The Permittee may also use Method 5, instead of Method 201A, provided that the measured results are considered PM_{10}.

iii. The Permittee shall submit reports and notifications for this emissions testing as required by Condition 3.5.1.

4.2.8 <u>Operational Instrumentation and Inspection Requirements</u>

a. Operational Instrumentation

i. The Permittee shall install, operate and maintain systems to measure the pressure drop across each baghouse used to control affected units, other than bin vent filters and other similar filtration devices.

ii. The Permittee shall maintain the records of the measurements made by these systems and records of maintenance and operational activity associated with the systems.

b. Inspections

i. A. The Permittee shall conduct inspections of affected units on at least a monthly basis with personnel who are not directly responsible for the day-to-day operation of these units, for the specific purpose of verifying that the measures identified in the operating program and other measures required to control emissions from affected units are being properly implemented.

B. These inspections shall include observation for the presence of visible emissions, performed in accordance with USEPA Method 22, from buildings in which affected units are located and from units from which the Permittee has elected to demonstrate no visible emissions.

ii. The Permittee shall perform detailed inspections of the dust collection equipment for affected units while the units are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the unit is out of service and a follow-up inspection performed after any such activities are completed. These inspections shall be conducted at least every 15 months.

4.2.9 Recordkeeping Requirements

a. For affected units that are subject to NSPS, the Permittee shall fulfill applicable recordkeeping requirements of the NSPS, 40 CFR 60.7.

b. The Permittee shall maintain file(s), which shall be kept current, that contain:

i. The maximum operating capacity of each affected unit or group of related units (tons/hour).

ii. A. For the baghouses and other filter devices associated with affected units, design specifications for each device (type of unit, maximum design exhaust flow (acfm and scfm), filter area, type of filter cleaning, performance guarantee for particulate exhaust loading in gr/scf, etc.), the manufacturer's recommended operating and maintenance procedures for the device, and design specification for the filter material in each device (type of material, surface treatment(s) applied to material, weight, performance guarantee, warranty provisions, etc.).

B. For each baghouse, the normal range of pressure drop across the device and the minimum and maximum safe pressure drop for the device, with supporting documentation.

iii. For affected units that are not controlled with baghouses or other filter-type devices, a detailed description of the work practices used to control emissions of PM pursuant to Condition 4.2.5(c). These control measures are referred to as the "established control measures" in this subsection of this permit.

iv. The designated PM emission rate, in pounds/hour and tons/year, from affected units, either individually or grouped by related units, with supporting

calculations and documentation, including detailed documentation for the level of emissions control achieved through the work practices that are used to control PM emissions.

v. A demonstration that confirms that the above established control measures are sufficient to assure compliance with the above emissions rates and, for units to which it applies, Condition 4.2.3(e), at the maximum process weight rate at which each affected unit can be operated (tons/hour), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. Except as addressed by Condition 4.2.9(b)(ii) or testing of PM emissions from an affected unit is conducted in accordance with Condition 4.2.7(b), this demonstration shall be developed using emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions published by USEPA.

c. The Permittee shall keep records for the amount of bulk materials received by or loaded out from the plant by category or type of material (tons/month).

d. i. The Permittee shall keep inspection and maintenance log(s) or other records for the control measures associated with the affected units, including buildings and enclosures, dust suppression systems and control devices.

ii. These records shall include the following information for the inspections required by Condition 4.2.8(b)(i):

A. Date and time the inspection was performed and name(s) of inspection personnel.

B. The observed condition of the control measures for each affected unit, including the presence of any visible emissions.

C. A description of any maintenance or repair associated with established control measures that are recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.

D. A summary of the observed implementation or status of actual control measures, as compared to the established control measures.

iii. These records shall include the following information for the inspections required by Condition 4.2.8(b)(ii):

A. Date and time the inspection was performed and name(s) of inspection personnel.

B. The observed condition of the dust collection equipment.

C. A summary of the maintenance and repair that is to be or was conducted on the equipment.

D. A description of any maintenance or repair that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or no longer appears to be required.

E. A summary of the observed condition of the equipment as related to its ability to reliably and effectively control emissions.

e. The Permittee shall maintain records of the following for each incident when any affected unit operated without the control measures required by Condition 4.2.5(a) or 4.2.5(c) or (d):

i. The date of the incident and identification of the unit(s) that were involved.

ii. A description of the incident, including: the established control measures that were not present or implemented; the established control measures that were present, if any; and other control measures or mitigation measures that were implemented, if any.

iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.

iv. Operational data for the incident, e.g., the measured pressure drop of a baghouse, if the pressure drop of the baghouse, as measured pursuant to Condition 4.3.8, deviated outside the levels set as good air pollution control practices.

v. The corrective action(s) taken and the length of time after the incident was identified that the unit(s) continued to operate before established control measures were in place or the operations were shutdown (to resume operation only after established control measures were in place) and, if this time was more than one hour, an explanation why this time was not shorter, including a detailed description of any mitigation measures that were implemented during the incident.

vi. The estimated total duration of the incident, i.e., the total length of time that the unit(s) ran without established control measures and the estimated amount of material processed during the incident.

vii. A discussion of the probable cause of the incident and any preventative measures taken.

viii. An estimate of any additional emissions of PM (pounds) above the PM emissions associated with normal operation that resulted from the incident, if any, with supporting calculations.

ix. A discussion whether any applicable emission standard, as listed in Condition 4.2.5 or 4.2.3 or any applicable emission rate, as identified in the records pursuant to Condition 4.2.9(b), may have been violated during the incident, with an estimate of the amount of any excess PM emissions (lbs) and supporting explanation.

f. The Permittee shall maintain the following records for the emissions of the affected units:

i. A file containing the standard emission factors used by the Permittee to determine PM emissions from the units, with supporting documentation.

ii. Records of PM emissions based on operating data for the unit(s) and appropriate emission factors, with supporting documentation and calculations.

g. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for affected units that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 4.2.7 or otherwise the identity of the observer, a description of

the measurements that were made, the operating condition of the affected unit, the observed opacity, and copies of the raw data sheets for the measurements.

4.2.10 Reporting Requirements

a. Notifications

i. The Permittee shall notify the Illinois EPA within 30 days of deviations from applicable emission standards or operating requirements for the affected units that continue* for more than 24 hours. These notifications shall include the information specified by Condition 3.5.2.

* For this purpose, time shall be measured from the start of a particular event. The absence of a deviation for a short period shall not be considered to end the event if the deviation resumes. In such circumstances, the event shall be considered to continue until corrective actions are taken so that the deviation ceases or the Permittee takes the affected unit out of service for repairs.

b. Reports

i. The Permittee shall submit semi-annual reports to the Illinois EPA for all deviations from emission standards, including standards for visible emissions and opacity, and operating requirements set by this permit. These notifications shall include the information specified by Condition 3.5.2.

ii. These reports shall also address any deviations from applicable compliance procedures established by this permit for affected units.

4.3 Roadways and Other Open Areas

4.3.1 Description

The affected units for the purpose of these unit-specific conditions are roadways, parking areas, and other open areas associated with the operation of the proposed plant, which may be sources of fugitive particulate matter due to vehicle traffic or wind blown dust. These emissions are controlled by paving and implementation of work practices to prevent the generation and emissions of particulate matter.

4.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Roadways and Other Open Areas	Paved and unpaved roads; parking lots; other open areas.	Fugitive Dust Control Program

4.3.3 Applicable Provisions and Regulations

a. An “affected unit” for the purpose of these unit-specific conditions, are the units described in Conditions 4.3.1 and 4.3.2.

b. i. The affected units are subject to 35 IAC 212.301, which provides that no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

   ii. Not withstanding the above, pursuant to 35 IAC 212.314, the above limit shall not apply and spraying to control fugitive dust pursuant to 35 IAC 212.304 through 212.310 and 212.312 shall not be required when the wind speed is greater than 25 mile/hour (40.2 km/hour), as determined in accordance with the provisions of 35 IAC 212.314.

c. The affected units are subject to 35 IAC 212.306, which provides that all normal traffic pattern access areas surrounding storage piles specified in 35 IAC 212.304 and all normal traffic pattern roads and parking facilities shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the

operating program required by 35 IAC 212.309, 212.310 and 212.312 (See also Condition 3.3.1).

d. The affected units are subject to 35 IAC 212.316, which provides that no person shall cause or allow the opacity of fugitive particulate matter emissions at certain sources to exceed the following limits:

i. 5 percent from any roadway or parking area [35 IAC 212.316(e)(1)].

ii. 20 percent for emission units not addressed above based on six minute averaging [35 IAC 212.316(f)].

4.3.4 Non-Applicability of Regulations of Concern

Non-applicability of regulations of concern are not set for the affected units.

4.3.5 Control Requirements and Work Practices

a. BACT/LAER Technology

i. The opacity of fugitive particulate matter emissions from affected units shall not exceed 5 percent opacity. For this purpose, opacity shall be determined in accordance with 35 IAC 212.109 and 35 IAC 212.314, respectively.

ii. A. Good air pollution control practices shall be implemented to minimize and significantly reduce nuisance dust from affected units associated with the new coke plant. After construction of the coke plant is complete, these practices shall provide for pavement on all regularly traveled roads and treatment (flushing, vacuuming, dust suppressant application, etc.) of roadways and areas that are routinely subject to vehicle traffic for very effective control of dust.

B. For this purpose, roads that serve any new office building, new employee parking areas or are used on a daily basis by operating and maintenance personnel for the coke plant in the course of their typical duties, roads that experience heavy use during regularly occurring maintenance of the coke plant during the course of a year, shall all be considered to be subject to regular travel and are required to be paved. Regularly traveled roads shall be considered to be subject to routine vehicle

traffic except as they are used primarily for periodic maintenance and are currently inactive or as traffic has been temporarily blocked off. Other roads shall be considered to be routinely traveled if activities are occurring such that they are experiencing significant vehicle traffic.

iii. The handling of material collected from any affected unit associated with the coke plant by sweeping or vacuuming trucks shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods to control PM emissions.

Condition 4.3.5(a) represents the application of the Best Available Control Technology and the Lowest Achievable Emission Rate.

4.3.6 Production and Emission Limitations

a. The emissions of fugitive dust from roadways and parking lots shall not exceed 16.03 tons/year of PM and 3.13 tons/year of PM_{10}.

b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

4.3.7 Testing Requirements

a. Opacity Measurement Requirements

i. The Permittee shall conduct performance observations, which include a series of observations of the opacity of fugitive emissions from the affected units as follows to determine the range of opacity from affected units and the change in opacity as related to the amount and nature of vehicle traffic and implementation of the operating program. For performance observations, the Permittee shall submit test plans, test notifications and test reports, as specified by General Condition 3.5.

A. Performance observations shall first be completed no later than 30 days after the date that initial emission testing of the coke oven batteries are performed, in conjunction with the measurements of silt loading on the affected units required by Condition 4.3.7(b).

B. Performance observations shall be repeated within 30 days in the event of changes involving affected units that would act to increase opacity (so that observations that are representative of the current circumstances of the affected units have not been conducted), including changes in the amount or type of traffic on affected units, changes in the standard operating practices for affected units, such as application of salt or traction material during cold weather, and changes in the operating program for affected units.

ii. Compliance observations shall be conducted for affected units on at least a quarterly basis to verify opacity levels and confirm the effectiveness of the operating program in controlling emissions.

iii. Upon written request by the Illinois EPA, the Permittee shall conduct performance or compliance observations, as specified in the request. Unless another date is agreed to by the Illinois EPA, performance observations shall be completed within 30 days and compliance observations shall be completed within 5 days of the Illinois EPA's request.

b. Silt Loading Measurements

i. The Permittee shall conduct measurements of the silt loading on various affected roadway segments and parking areas, as follows:

A. Sampling and analysis of the silt loading shall be conducted using the "Procedures for Sampling Surface/Bulk Dust Loading," Appendix C.1 in Compilation of Air Pollutant Emission Factors, USEPA, AP-42. A series of samples shall be taken to determine the average silt loading and address the change in silt loadings as related to the amount and nature of vehicle traffic and implementation of the operating program.

ii. Measurements shall be performed by the following dates:

A. Measurements shall first be completed no later than 30 days after the date that initial emission testing of the coke oven batteries is performed.

B. Measurements shall be repeated within 30 days in the event of changes involving affected

units that would act to increase silt loading (so that data that is representative of the current circumstances of the affected units has not been collected), including changes in the amount or type of traffic on affected units, changes in the standard operating practices for affected units, such as application of salt or traction material during cold weather, and changes in the operating program for affected units.

C. Upon written request by the Illinois EPA, the Permittee shall conduct measurements, as specified in the request, which shall be completed within 75 days of the Illinois EPA's request.

iii. The Permittee shall submit test plans, test notifications and test reports for these measurements as specified by Overall Source Condition 3.5, provided, however, that once a test plan has been accepted by the Illinois EPA, a new test plan need not be submitted if the accepted plan will be followed or a new test plan is requested by the Illinois EPA.

4.3.8 Monitoring Requirements

Monitoring requirements are not set for the affected units.

4.3.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected units:

a. i. Records of the application of control measures as may be needed for compliance with the opacity limitations 35 IAC 212.316, including at least the following [35 IAC 212.316(g)(1) and (2)]:

A. The name and address of the source;

B. The name and address of the owner and/or operator of the source;

C. A map or diagram showing the location of all emission units controlled, including the location, identification, length, and width of roadways;

D. For each application of water or chemical solution to roadways by truck: the name and

location of the roadway controlled, application rate of each truck, frequency of each application, width of each application, identification of each truck used, total quantity of water or chemical used for each application and, for each application of chemical solution, the concentration and identity of the chemical.

E. For application of physical or chemical control agents: the name of the agent, application rate and frequency, and total quantity of agent and, if diluted, percent of concentration, used each day; and

F. A log recording incidents when control measures were not used and a statement of explanation.

ii. Copies of all records required by 35 IAC 212.316(g) shall be submitted to the Illinois EPA within ten working days after a written request by the Illinois EPA and shall be transmitted to the Illinois EPA by a company-designated person with authority to release such records.

b. The Permittee shall maintain records for each period of time when it relies upon the exemption provided by 35 IAC 212.314 to not comply with 35 IAC 212.301 or implement measures otherwise required by 35 IAC 212.304 through 212.310, or 212.312, with supporting documentation for the determination of wind speed.

c. The Permittee shall maintain records documenting implementation of the operating program required by Condition 4.3.3(c), including:

i. Records for each treatment of an affected unit or units:

A. The identity of the affected unit(s), the date and time, and the identification of the truck(s) or treatment equipment used;

B. For application of dust suppressant by truck: target application rate or truck speed during application, total quantity of water or chemical used and, for application of a chemical or chemical solution, the identity of the chemical and concentration, if applicable;

C. For sweeping or cleaning: Identity of equipment used and identification of any deficiencies in the condition of equipment; and

D. For other type of treatment: A description of the action that was taken.

ii. Records for each incident when control measures were not implemented and each incident when additional control measures were implemented due to particular activities, including description, date, a statement of explanation, and expected duration of such circumstances.

d. i. The Permittee shall keep records for the silt measurements conducted for affected units pursuant to Condition 4.3.7(b), including records for the sampling and analysis activities and results.

ii. The Permittee shall maintain records for all opacity measurements made in accordance with USEPA Method 9 for the affected units that the Permittee conducts or that are conducted on its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 3.5.1, or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected unit, the observed opacity, and copies of the raw data sheets for the measurements.

e. The Permittee shall maintain records for the PM emissions of the affected units to verify compliance with the limits in Condition 4.3.6, based on the above records for the affected units including data for implementation of the operating program, and appropriate USEPA emission estimation methodology and emission factors, with supporting calculations.

f. The Permittee shall maintain the following records related to emissions of fugitive particulate matter from affected units. As records of certain information are to be kept in a file, the Permittee shall review and update such information on a periodic basis so that the file contains accurate information addressing the current circumstances of the source.

i. A file that contains information on the length and state of road segments at the plant, the area and state of other open areas at the source traveled by

vehicles, and the characteristics of the various categories of vehicles present at the source as necessary to determine emissions.

ii. A file that contains information for the emission control efficiency or controlled emission factors (lb/vehicle mile traveled) achieved by the standard management practices implemented by the Permittee pursuant to its operating program for the various categories of vehicles on the road segments and open areas at the source, based on methodology for estimating emissions published by USEPA, with supporting explanation and calculations.

iii. For emission that are not controlled or for which emissions are determined by applying a control efficiency to an uncontrolled emission factor, information for the standard emission factors (lb/vehicle mile traveled) used for uncontrolled emissions for the various categories of vehicles on the road segments and open areas at the source, based on methodology for estimating emissions published by USEPA, with supporting explanation and calculations.

iv. Records of the estimated vehicle miles traveled on each roadway segment or other open area (miles/month, by category of vehicle), with supporting documentation and calculations. These records may be developed from the records for the amount of different materials handled at the source and information in a file that describes how different materials are handled.

v. Records for each period when standard management practices were not implemented, including a description of the event, an estimate of control measures that were present during the event and an estimate of the additional emissions that occurred during the event.

vi. Records for emissions, in ton/month, based on the emission factors and other information contained in other required records, with supporting calculations.

4.3.10 <u>Reporting Requirements</u>

a. Pursuant to 35 IAC 212.316(g)(1) and (5), the Permittee shall submit the following reports to the Illinois EPA related to the records required by 35 IAC 212.316(g)(1) and (2). (Refer to Condition 4.3.9(a))

i. A quarterly report including the information specified by 35 IAC 212.316(g)(5), including, but not limited to, those dates when controls were not applied based on a belief that application of such control measures would have been unreasonable given prevailing atmospheric conditions, which shall constitute a defense to the requirements of 35 IAC 212.316(g).

ii. An annual report containing a summary of the information in these records.

b. The Permittee shall promptly notify the Illinois EPA of deviations with permit requirements by affected units as follows. These reports shall contain the information specified in Condition 3.5.2, including a description of the probable cause of such deviations, any corrective actions taken, and preventive measures taken and be accompanied by the relevant records for the incident:

i. Notification within 30 days for any incident in which 35 IAC 212.301 may have been violated.

ii. Notification with the quarterly report for other deviations. (See also Condition 4.3.10(a)(i).)

5.0 ATTACHMENTS

Attachment 1: Project Emission Summary (Tons/Year)

Operation	NO_x	CO	SO_2	VOM	PM	PM_{10}	Lead	H_2SO_4
Gateway Coke Oven Project								
Charging	---	1.53	0.16	1.10	8.06	8.06	0.00006	---
Pushing	10.40	34.49	53.66	10.95	31.41	31.41	0.0084	2.74
Main Stack	547.50	114.65	997.33	24.57	124.00	124.00	0.085	10.17
Waste Heat Stacks	19.50	4.08	355.21	0.87	30.24	30.24	0.06	18.12
Quenching	---	---	---	---	65.70	24.09	0.048	---
Coal/Coke Handling & Storage	---	---	---	---	6.97	3.32	---	---
Coke Crushing/Screening	---	---	---	---	9.39	9.39	---	---
Roads	---	---	---	---	16.03	3.13	---	---
SUBTOTAL:	577.40	154.76	1,406.36	37.49	291.80	233.64	0.2	31.02
USS Conveyor Increase	---	---	---	---	0.95	0.45	---	---
SUBTOTAL:	577.40	154.76	1,406.36	37.49	292.75	234.09	0.20	31.02
Significance Threshold:	40	100	40	40	25	15	0.6	7
Greater Than Significant?	Yes	Yes	Yes	No	Yes	Yes	No	Yes

Attachment 2: Netting Analysis (Tons/Year)

	NO_x (NA NSR)	NO_x (PSD)	CO	SO_2	VOM	PM	$PM_{10}/PM_{2.5}$	Lead	H_2SO_4
Project Emissions	577.40	577.40	154.76	1,406.36	37.49	292.75	234.09	0.20	31.02
Contemporaneous[a] Increases									
BFG Boiler/Flare (06070023)	124.74	124.74	338.36	451.14	0.92	232.25	232.25	---	---
NG Enrichment (04110018)	17.22	17.22	5.17	0.04	0.34	0.73	0.62	---	---
Slab Furnaces (06070022)	---	---	26.77	---	1.75	43.43	43.43	---	---
Contemporaneous[a] Decreases									
Boilers 1-10 (06070022)	-278.89	-278.89	-313.61	-789.43	-1.22	-228.06	-228.06	---	---
COG Desulf. (06070022)	---	---	---	-2,107.95	---	-94.15	-94.15[b]	---	-63.11
Slab Furnaces (06070022)	-427.94	-427.94	---	-174.15	---	---	---	---	---
No. 6 Galv. Line (06070023)	-38.48	-38.48	-10.36	-0.07	-0.68	-0.94	-0.94	---	---
No. 4 COG Pump (06070023)	-77.30	-77.30	-117.97	-0.02	-0.99	-0.64	-0.64	---	---
NET EMISSIONS CHANGE	-103.25	-103.25	83.12	-1,214.08	37.61	245.37	186.60	0.20	-32.09
Significance Threshold:	40	40	100	40	40	25	15	0.6	7
Greater Than Significant?	No	No	No	No	No	Yes	Yes	No	No

Notes:

[a] The contemporaneous time period for PSD pollutants is April 2002 through July 2008. The contemporaneous time period for NA NSR pollutants is July 2001 through July 2008.

[b] The COG desulfurization project (excludes Boilers 1-10 shutdown and Slab Furnaces) results in a contemporaneous PM/PM_{10} emission decrease of 94.15 tons. 31.74 tons of this decrease is being relied upon for use as an offset. This portion of the decrease is no longer available, e.g., future netting transactions.

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Attachment 3: Summary of BACT/LAER Determinations

Operation	Permit Condition	BACT Determination for PM and PM_{10} Control Technology/Emission Limit	LAER Determination for $PM_{2.5}$ Control Technology/Emission Limit as PM_{10}
Charging	4.1.5	Baghouse with traveling hood (0.016 lb/ton coal).	Baghouse with traveling hood (0.016 lb/ton coal).
Coking - Main Stack	4.1.5	Baghouse (0.008 and 0.011 gr/dscf for filterable and total particulate, respectively).	Baghouse (0.008 and 0.011 gr/dscf for filterable and total PM_{10}, respectively).
Coking - Waste heat stacks	4.1.5	Work practices (0.08 gr/dscf).	Work practices (0.08 gr/dscf).
Pushing	4.1.5	Flat car push with multicyclone (0.08 lb/ton coke).	Flat car push with multicyclone (0.08 lb/ton coke).
Quenching	4.1.5	Baffles and cleaned water (0.044 lb/ton coal).	Baffles and cleaned water (0.044 lb/ton coal).
Coke Crushing & Screening	4.2.5	Enclosure and baghouse (0.005 and 0.008 gr/dscf for filterable and total particulate, respectively).	Enclosure and baghouse (0.008 and 0.011 gr/dscf for filterable and total PM_{10}, respectively).
Roads, Storage Piles and Other Sources of Fugitive Dust	4.3.5	Paving, Watering	Paving, Watering

Attachment 4: Standard Permit Conditions

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits, which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Illinois EPA and a supplemental written permit issued.

4. The Permittee shall allow any duly authorized agent of the Illinois EPA upon the presentation of credentials, at reasonable times:

    a. To enter the Permittee’s property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,

    b. To have access to and to copy any records required to be kept under the terms and conditions of this permit,

    c. To inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,

    d. To obtain and remove samples of any discharge or emissions of pollutants, and

    e. To enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

   a. Shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

   b. Does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities.

   c. Does not release the Permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations.

   d. Does not take into consideration or attest to the structural stability of any units or parts of the project, and

   e. In no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Illinois EPA before the equipment covered by this permit is placed into operation.

b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.

7. The Illinois EPA may file a complaint with the Board for modification, suspension or revocation of a permit.

   a. Upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed, or

   b. Upon finding that any standard or special conditions have been violated, or

   c. Upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

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