



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: September 2, 2008

RE: Mid-Continent Coal & Coke Company / 089-25334-00173

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



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Mr. Carl Horst
Mid-Continent Coal and Coke Company
915 West 175th Street
Homewood, IL 60430

September 2, 2008

Re: 089-25334-00173
First Significant Permit Modification to
Part 70 No.: T 089-8064-00173

Dear Mr. Horst:

Mid-Continent Coal and Coke Company was issued a Part 70 Operating Permit T089-8064-00173 on June 30, 2006 for a stationary raw material segregation of metallurgical coke and coal operation. An application requesting changes to this permit was received on September 25, 2007. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Mid-Continent Coal & Coke Company, relating to correct the facility descriptions and for the addition of a throughput limit. The following is a list of the modified emission units:

- (a) One (1) re-screening operation, identified as Plant No. 1, constructed in 1981, with a maximum capacity of 50 tons per hour of coke or coal, consisting of the following:
 - (1) one (1) feed hopper;
 - (2) eight (8) conveyors;
 - (3) one (1) vibrator screen for processing;
 - (4) one and a half (1.5) acre of coke storage piles with throughput of 40,838 tons per year; and
 - (5) Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.
- (b) One (1) re-screening operation, identified as Plant No. 2, constructed in 1981, with a maximum capacity of 96.25 tons per hour of coke, consisting of the following:
 - (1) one (1) feed hopper;
 - (2) fourteen (14) conveyors;
 - (3) two (2) pep screens;

- (4) one (1) triple deck vibrator screen;
 - (5) four (4) acres of coke storage piles with a throughput of 184,800 tons per year;
and
 - (6) Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.
- (c) Fugitive Dust Sources consisting of, but not limited to the following:
- (1) Paved Roads and Parking Lots
 - (2) Unpaved Roads and Parking Lots
 - (3) Batch Transfer-Loading and Unloading Operations
 - (4) Continuous Transfer In and Out of Storage Piles
 - (5) Batch Transfer Operations-Slag and Kish Handling
 - (6) Wind Erosion from Storage Piles and Open Areas
 - (7) In Plant Transfer by Truck or Rail
 - (8) In Plant Transfer by Front End Loader or Skip Hoist
 - (9) Material Processing Facility (except Crusher Fugitive Emissions)
 - (10) Crusher Fugitive Emissions
 - (11) Material Processing Facility Building Openings
 - (12) Dust Handling Equipment
- (d) One (1) stacking conveyor with attached feed hopper for storage piling and transportation equipment loading, identified as CS-01, approved for construction in 2007, with a maximum throughput of 200 tons per hour, powered by a 90 HP generator (Gen1) with a model year of 1968, with particulate emissions controlled by periodic watering of piles, and exhausting to the atmosphere.

Additionally, Mid-Continent Coal and Coke Company will take the following throughput limits:

- (a) The coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 1, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 2, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire Part 70 Operating Permit as modified.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact John Haney, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or call at (800) 451-6027, and ask for John Haney or extension 4-5328, or dial (317) 234-5328.

Original signed by,

Donald F. Robin, P.E., Section Chief
Permits Branch
Office of Air Quality

Attachments

DFR/jeh

cc: File – Lake County
U.S. EPA, Region V
Lake County Health Department
Northwest Regional Office
Air Compliance Section Inspector
Compliance Data Section
Administrative and Development



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PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

Mid-Continent Coal & Coke Company
an on-site Contractor of US Steel - Gary Works
One North Broadway
Gary, Indiana 46402

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T089-8064-00173	
Issued by: Original signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: June 30, 2006 Expiration Date: June 30, 2011

First Minor Permit Modification No.: 089-24352-00173, Issued on July 19, 2007.

First Significant Permit Modification No.: 089-25334-00173	
Original signed by: Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: September 2, 2008 Expiration Date: June 30, 2011



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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1, A.2, A.3 and A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary raw material segregation of metallurgical coke and coal operation.

Source Address:	One North Broadway, Gary, Indiana 46402
Mailing Address:	915 West 175 th Street, Homewood, Illinois 60430
General Source Phone Number:	708-798-1110
SIC Code:	5052
Source Location Status:	Nonattainment 8-hour ozone Nonattainment for PM2.5 Attainment or unclassifiable for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD, Emission Offset, and Nonattainment NSR Rules Major for Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

US Steel - Gary Works is an integrated steel mill that consists of a main mill and an on-site contractor:

- (a) US Steel - Gary Works, 089-00121, the primary operation, is located at One North Broadway, Gary, IN 46402; and
- (b) Mid-Continent Coal & Coke Company, 089-00173, the on-site contractor, is located at One North Broadway, Gary, IN 46402.

Separate Part 70 permits will be issued to US Steel - Gary Works with Permit No.089-7663-00121 and Mid-Continent Coal & Coke Company with Permit No. 089-8064-00173 solely for administrative purposes.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

Mid-Continent Coal & Coke Company consists of the following:

- (a) One (1) re-screening operation, identified as Plant No. 1, constructed in 1981, with a maximum capacity of 50 tons per hour of coke or coal, consisting of the following:
 - (1) one (1) feed hopper;
 - (2) eight (8) conveyors;
 - (3) one (1) vibrator screen for processing;
 - (4) one and a half (1.5) acre of coke storage piles with throughput of 40,838 tons per year; and
 - (5) Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads.

Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.

- (b) One (1) re-screening operation, identified as Plant No. 2, constructed in 1981, with a maximum capacity of 96.25 tons per hour of coke, consisting of the following equipment:
 - (1) one (1) feed hopper;
 - (2) fourteen (14) conveyors;
 - (3) two (2) pep screens;
 - (4) one (1) triple deck vibrator screen;
 - (5) four (4) acres of coke storage piles with a throughput of 184,800 tons per year; and
 - (6) Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.

- (c) Fugitive Dust Sources consisting of, but not limited to the following:
 - (1) Paved Roads and Parking Lots
 - (2) Unpaved Roads and Parking Lots
 - (3) Batch Transfer-Loading and Unloading Operations
 - (4) Continuous Transfer In and Out of Storage Piles
 - (5) Batch Transfer Operations-Slag and Kish Handling
 - (6) Wind Erosion from Storage Piles and Open Areas
 - (7) In Plant Transfer by Truck or Rail
 - (8) In Plant Transfer by Front End Loader or Skip Hoist
 - (9) Material Processing Facility (except Crusher Fugitive Emissions)
 - (10) Crusher Fugitive Emissions
 - (11) Material Processing Facility Building Openings
 - (12) Dust Handling Equipment

- (d) One (1) stacking conveyor with attached feed hopper for storage piling and transportation equipment loading, identified as CS-01, approved for construction in 2007, with a maximum throughput of 200 tons per hour, powered by a 90 HP generator (Gen1), with particulate emissions controlled by periodic watering of piles, and exhausting to the atmosphere.

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

Mid-Continent Coal & Coke Company also includes the following specifically regulated insignificant activities, as defined in 326 IAC 2-7-1(21);

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (b) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]

- (a) This permit, T089-8064-00173, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, and the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1 When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain

certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D. of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR 60/63 to have an Operation, Maintenance and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and Northwest Regional Office within four (4) daytime business hours after

the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

Telephone Number: 1-888-209-8892 (Northwest Regional Office)
(Toll free within Indiana)

Telephone Number: 219-757-0265 (Northwest Regional Office)

Facsimile Number: 219-757-0267

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency

provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ has issued the modifications. [326 IAC 2-7-12(c)(7)]

- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T089-8064-00173 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
- (1) That this permit contains a material mistake.

- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, determines any of the following: to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ determines any of the following: at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ determines any of the following: may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b), (c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification of the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and/or 326 IAC 2-3-2.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ and the U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

- (b) As authorized by the Clean Air Act IC 13-14-2-1, IC 13-17-3-2, and IC 13-30-3-1 have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act IC 13-14-2-1, IC 13-17-3-2, and IC 13-30-3-1 inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act IC 13-14-2-1, IC 13-17-3-2, and IC 13-30-3-1 sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act IC 13-14-2-1, IC 13-17-3-2, and IC 13-30-3-1 utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. In the event that the source is a sub-contractor and is combined with a larger Part 70 source, the larger Part 70 source may pay the Permittees' annual fees as part of the larger source billing and subject to the fee cap of the larger source. If, however, the larger Part 70 does not pay its annual Part permit fee, IDEM, OAQ will assess a separate fee in accordance with 326 IAC 2-7-19(c) to be paid by the Permittee. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to

whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6.8-10 and 326 IAC 6.8-11]

- (a) Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:
 - (1) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
 - (2) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
 - (3) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%). Where adequate wetting of the material for fugitive particulate emissions control is prohibitive to further processing or reuse of the material, the opacity shall not exceed ten percent (10%) three (3) minute average. This includes material transfer to initial hopper of material processing facility as defined in 326 IAC 6.8-10-2 or material transfer for transportation within or outside the source property including but not limited to the following:
 - (A) Transfer of slag product for use in asphalt plant
 - (i) From a storage pile to a front end loader; and
 - (ii) From a front end loader to a truck.

- (B) Transfer of sinter blend for use at the sinter plant:
 - (i) From a storage pile to a front end loader; and
 - (ii) From a front end loader to a truck; and
 - (iii) From a truck to the initial processing point

- (C) Transfer of coal for use at a coal processing line:
 - (i) From a storage pile to a front end loader, and
 - (ii) From a front end loader to the initial hopper of a coal processing line.

Compliance with any operation lasting less than three (3) minutes shall be determined as an average of consecutive operations recorded at fifteen (15) second intervals for the duration of the operation.

- (4) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits:
 - (A) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a three (6) minute average.
 - (B) The opacity of fugitive particulate emissions from transfer from pits into front end loaders and from transfer from front end loaders into trucks shall comply with the fugitive particulate emission limits in 326 IAC 6.8-10-3(9).

- (5) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.

- (6) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average. These limitations may not apply during periods when application of fugitive particulate control measures is either ineffective or unreasonable due to sustained very high wind speeds. During such periods the company must continue to implement all reasonable fugitive particulate control measures and maintain records documenting the application of measures and the basis for a claim that meeting opacity limitation was not reasonable given prevailing wind conditions.

- (7) There shall be a zero (0) percent frequency of visible emission observations of a material during the in plant transportation of material by truck or rail at any time. Material transported by truck or rail that is enclosed and covered shall be considered in compliance with in-plant transportation requirement.

- (8) The opacity of fugitive particulate emissions from the in plant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).

- (9) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.

- (10) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.

- (11) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).

- (12) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard.

- (13) PM10 emissions from each material processing stack shall not exceed 0.022 grains per dry standard cubic foot and ten percent (10%) opacity.
- (14) Fugitive particulate matter from the material processing facilities except at a crusher in which a capture system is not used shall not exceed ten percent (10%) opacity.
- (15) Fugitive particulate matter from a crusher in which a capture system is not used shall not exceed fifteen percent (15%) opacity.
- (b) The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan submitted on March 1, 2003 (See Attachment A).
- (c) The source is subject to 326 IAC 6.8-11 (formerly 326 IAC 6-1-11.2) (Lake County Particulate Matter Contingency Measures), because it is subject to the requirements of 326 IAC 6.8-10. Pursuant to this rule, the source shall comply with 326 IAC 6.8-11-4 and 326 IAC 6.8-11-6.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within ninety (90) days after the date of issuance of this Part 70 Operating Permit No. T089-8064-00173.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.12 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.13 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a

description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of criteria pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of fee assessment.

- (b) The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]
[326 IAC 2-3]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period.

The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) re-screening operation, identified as Plant No. 1, constructed in 1981, with a maximum capacity of 50 tons per hour of coke or coal, consisting of the following:
- (1) one (1) feed hopper;
 - (2) eight (8) conveyors;
 - (3) one (1) vibrator screen for processing;
 - (4) one and a half (1.5) acre of coke storage piles with throughput of 40,838 tons per year; and
 - (5) Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.
- (b) One (1) re-screening operation, identified as Plant No. 2, constructed in 1981, with a maximum capacity of 96.25 tons per hour of coke, consisting of the following equipment:
- (1) one (1) feed hopper;
 - (2) fourteen (14) conveyors;
 - (3) two (2) pep screens;
 - (4) one (1) triple deck vibrator screen;
 - (5) four (4) acres of coke storage piles with throughput of 184,800 tons per year; and
 - (6) Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.
- (c) Fugitive Dust Sources consisting of, but not limited to the following:
- (1) Paved Roads and Parking Lots
 - (2) Unpaved Roads and Parking Lots
 - (3) Batch Transfer-Loading and Unloading Operations
 - (4) Continuous Transfer In and Out of Storage Piles
 - (5) Batch Transfer Operations-Slag and Kish Handling
 - (6) Wind Erosion from Storage Piles and Open Areas
 - (7) In Plant Transfer by Truck or Rail
 - (8) In Plant Transfer by Front End Loader or Skip Hoist
 - (9) Material Processing Facility (except Crusher Fugitive Emissions)
 - (10) Crusher Fugitive Emissions
 - (11) Material Processing Facility Building Openings
 - (12) Dust Handling Equipment
- (d) One (1) stacking conveyor with attached feed hopper for storage piling and transportation equipment loading, identified as CS-01, approved for construction in 2007, with a maximum throughput of 200 tons per hour, powered by a 90 HP generator (Gen1), with particulate emissions controlled by periodic watering of piles, and exhausting to the atmosphere.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD and Nonattainment NSR Minor Limit [326 IAC 2-2] [326 IAC 2-1.1-5]

- (a) Pursuant to Significant Permit Modification 057-25334-00002, the coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 1, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) Pursuant to Significant Permit Modification 057-25334-00002, the coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 2, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the above limits shall limit the PM from the entire source to less than 25 tons and the PM-10 from the entire source to less than 15 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable. Compliance with the above limits shall limit the PM-2.5 from the entire source to less than 10 tons per twelve (12) consecutive month period and render 326 IAC 2-1.1-5 not applicable.

D.1.2 Fugitive Dust Emission Limitations [326 IAC 6-4-2] [326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6-4-2:
 - (1) The Plant No. 1: feeder hopper, conveyers, and vibrator screen and Plant No. 2: feeder hopper, conveyers, pep screens, and vibrator screens and stacking conveyor CS-01 generating fugitive dust shall be in violation of this rule (326 IAC 6-4) if any of the following criteria are violated:

- (A) A source or combination of sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = \frac{100(R - U)}{U}$$

Where

P = Percentage increase

R = Number of particles of fugitive dust measured at downward receptor site

U = Number of particles of fugitive dust measured at upwind or background site

- (B) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in subdivision (1) of this section shall be modified as follows:

$$PR = (1.5 \pm N) P$$

Where

N = Fraction of fugitive dust that is respirable dust;

PR = allowable percentage increase in dust concentration above background; and

P = no value greater than sixty-seven percent (67%).

- (C) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.
 - (D) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in

subdivisions (1), (2) or (3) of this section. 326 IAC 6-4-2(4) is not federally enforceable.

- (2) Pursuant to 326 IAC 6-4-6(6) (Exceptions), fugitive dust from a source caused by adverse meteorological conditions will be considered an exception to this rule (326 IAC 6-4) and therefore not in violation.
- (b) Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)) Lake County Fugitive Particulate Matter Emissions Limitations, fugitive emissions from the Plant No. 1: feeder hopper, conveyers, and vibrator screen and Plant No. 2: feeder hopper, conveyers, pep screens, and vibrator screen and stacking conveyor CS-01 generating fugitive dust shall comply with the emissions limitations in Section C - Fugitive Dust Emissions.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the screens and conveyors.

Compliance Determination Requirements

D.1.4 Fugitive Dust Control [326 IAC 2-7-6(6)]

The dust suppression used as control for the fugitive particulate emissions from the fugitive dust sources shall be applied as often as necessary to control fugitive dust.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the Plant No. 1: feeder hopper, conveyers and vibrator screen and Plant No. 2: feeder hopper, conveyers, pep screens and vibrator screen and stacking conveyor CS-01 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain a daily record of visible emission notations of the Plant No. 1: feeder hopper, conveyers and vibrator screen and Plant No. 2: feeder hopper, conveyers, pep screens and vibrator screen and stacking conveyor CS-01. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

This raw material segregation of metallurgical coke and coal operation also includes the following specifically regulated insignificant activities as defined in 326 IAC 2-7-1(21).

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (b) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5]

D.2.1 Fugitive Dust Emission Limitations [326 IAC 6-4-2] [326 IAC 6.8-10-3]

(a) Pursuant to 326 IAC 6-4-2:

- (1) The brazing equipment, cutting torches, soldering equipment, and welding equipment generating fugitive dust shall be in violation of this rule (326 IAC 6-4) if any of the following criteria are violated:

- (A) A source or combination of sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = \frac{100(R - U)}{U}$$

Where

P = Percentage increase

R = Number of particles of fugitive dust measured at downward receptor site

U = Number of particles of fugitive dust measured at upwind or background site

- (B) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in subdivision (1) of this section shall be modified as follows:

$$PR = (1.5 \pm N) P$$

Where

N = Fraction of fugitive dust that is respirable dust;

PR = allowable percentage increase in dust concentration above background; and

P = no value greater than sixty-seven percent (67%).

- (C) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.
- (D) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (1), (2) or (3) of this section. 326 IAC 6-4-2(4) is not federally enforceable.

- (2) Pursuant to 326 IAC 6-4-6(6) (Exceptions), fugitive dust from a source caused by adverse meteorological conditions will be considered an exception to this rule (326 IAC 6-4) and therefore not in violation.
- (b) Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)) Lake County Fugitive Particulate Matter Emissions Limitations, fugitive emissions from the brazing equipment, cutting torches, soldering equipment, and welding equipment generating fugitive dust shall comply with the emissions limitations in Section C - Fugitive Dust Emissions.

D.2.2 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-1]

- (a) Pursuant to 326 IAC 8-9-1 (a) and (b) (Volatile Organic Liquid Storage Vessels), on and after October 1, 1995, stationary vessels used to store volatile organic liquids (VOL), that are located in Clark, Floyd, Lake or Porter County with a capacity of less than thirty nine thousand (39,000) gallons are subject to the reporting and record keeping requirements of this rule. The VOL storage vessels are exempted from all other provisions of this rule.
- (b) Pursuant to 326 IAC 8-9-6 (a) and (b), the Permittee shall maintain the following records for the life of the stationary storage vessels and submit a report to IDEM, OAQ containing the following for each vessel:
 - (1) The vessel identification number,
 - (2) The vessel dimensions, and
 - (3) The vessel capacity.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Mid-Continent Coal & Coke Company, an on-site Contractor of US Steel - Gary Works
Source Address: One North Broadway, Gary, IN 46402
Mailing Address: 915 West 175th Street Homewood, IL 60430
Part 70 Permit No.: T089-8064-00173

This certification shall be included when submitting monitoring, testing reports/results, or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) _____
- Report (specify) _____
- Notification (specify) _____
- Affidavit (specify) _____
- Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Mid-Continent Coal & Coke Company, an on-site Contractor of US Steel -Gary Works
Source Address: One North Broadway, Gary, IN 46402
Mailing Address: 915 West 175th Street, Homewood, IL 60430
Part 70 Permit No.: T089-8064-00173

This form consists of 2 pages

Page 1 of 2

<p>This is an emergency as defined in 326 IAC 2-7-1(12)</p> <p>The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and</p> <p>The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.</p>
--

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Mid-Continent Coal & Coke Company, an on-site Contractor of US Steel -Gary Works
Source Address: One North Broadway, Gary, IN 46402
Mailing Address: 915 West 175th Street, Homewood, IL 60430
Part 70 Permit No.: T 089-8064-00173
Facility: Plant #1
Parameter: Throughput of coke/coal processed
Limit: Less than 360,000 tons of iron per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR:

Month	Column 1 (coke throughput)	Column 2 (coke throughput)	Column 1 + Column 2 (coke throughput)
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Mid-Continent Coal & Coke Company, an on-site Contractor of US Steel -Gary Works
Source Address: One North Broadway, Gary, IN 46402
Mailing Address: 915 West 175th Street, Homewood, IL 60430
Part 70 Permit No.: T 089-8064-00173
Facility: Plant #2
Parameter: Throughput of coke/coal processed
Limit: Less than 360,000 tons of iron per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR:

Month	Column 1 (coke throughput)	Column 2 (coke throughput)	Column 1 + Column 2 (coke throughput)
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Mid-Continent Coal & Coke Company, an on-site Contractor of US Steel - Gary Works
Source Address: One North Broadway, Gary, IN 46402
Mailing Address: 915 West 175th Street, Homewood, IL 60430
Part 70 Permit No.: T089-8064-00173

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. . A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

FUGITIVE DUST CONTROL PLAN

MID-CONTINENT COAL AND COKE COMPANY

Source Information

Primary Contact & Owner Information:

Carl Horst
Manager of Operations
Mid-Continent Coal and Coke Company
915 W. 175th Street
Homewood, IL 60430
Telephone Number (708) 798-1110
Off-hours Number (708) 267-7198

Portable Source Address:

US Steel – Gary Works
1 North Broadway
Gary, Indiana 46402

Emission Sources and Methods of Fugitive Emissions Control

Roadway Control:

1. Traffic is restricted to established and controlled roadways.
2. Vehicular traffic (i.e., loaders, tractor trailers, trucks, etc.) on unpaved roads is limited to 5 mph.
3. Paved roadways are the responsibility of US Steel.
4. Unpaved roadways, within the portable plant(s) work area(s), are inspected each day of operation to determine if dust suppression is required.
5. Water is applied to unpaved roads, by front-end loader bucket, to manage fugitive dust.

Coke/Coal Stockpile Control Measures:

1. Front-end loader bucket drop height, during screening and loading operations, is kept to the lowest practical elevation.
2. Water is applied to stockpiles, as necessary, to prevent visible emissions from leaving the property.
3. Water will not be applied during freezing weather, typically between October 15 and April 15.

Coke/Coal Screening & Stacking Control:

The inherent moisture of coke is greater than 10%. This prevents visible emissions during screening and stacking operations. If excess emissions are observed during screening or stacking, operations will stop and one of two control methods will be used:

1. Water sprays may be applied to the source stockpile to get its moisture level above 10%
2. For small amounts of dry coke, fresh material may be dumped on top of the dry material and mixed with a loader bucket to raise the moisture content of the dry material to an acceptable level.

Site Map

Legend

Unpaved Roads - - - - -

Stockpile 

Portable Plant 

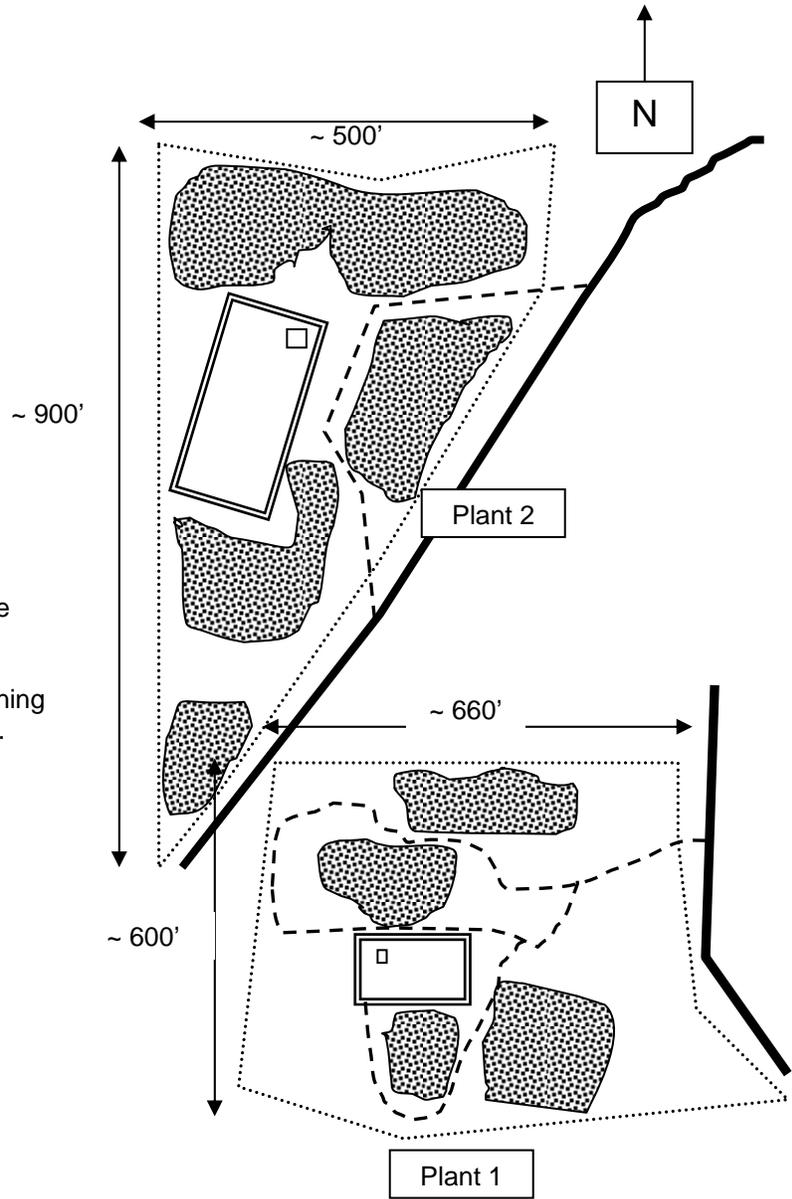
Property Line - - - - -

Buildings 

Paved Road 

Stacking Conveyor(s) are not indicated. They can be located anywhere within the property.

Note: Stockpiles and the exact location to the screening and stacking operations will vary within the property.



**Indiana Department of Environmental Management
Office of Air Quality**

Addendum to the Technical Support Document (ATSD) for a
Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Mid-Continent Coal & Coke Company
Source Location:	One North Broadway, Gary, IN 46402
County:	Lake
SIC Code:	5052
Operation Permit No.:	T089-8064-00173
Operation Permit Issuance Date:	June 30, 2006
Significant Permit Modification No.:	089-25334-00173
Permit Reviewer:	John Haney

On June 2, 2008, the Office of Air Quality (OAQ) had a notice published in the Post Tribune, Merrillville, Indiana, and The Times, Munster, Indiana, stating that Mid-Continent Coal & Coke Company had applied for a significant permit modification to correct the facility descriptions and for the addition of a throughput limit. The notice also stated that the OAQ proposed to issue a significant permit modification for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

No comments were received during the public notice period.

Additional Changes

IDEM, OAQ has decided to make additional revisions to the permit as described below, with deleted language as ~~strikeouts~~ and new language **bolded**.

- (a) In order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM_{2.5} promulgated on May 8, 2008, and effective on July 15, 2008. Therefore, PM_{2.5} emissions for Mid-Continent Coal & Coke Company have been calculated (see TSD Addendum Appendix A) and reviewed for compliance with direct PM_{2.5} requirements of Nonattainment New Source Review.
- (b) **Section C – Asbestos Abatement Projects**
Section C.7(g) was revised to reflect the rule language in 326 IAC 14-10-1(a).

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

...

- (g) ~~Indiana Accredited~~ **Licensed** Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an ~~Indiana Accredited~~ **Licensed** Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an ~~Indiana Accredited~~ **Licensed** Asbestos Inspector is not federally enforceable.

- (c) Section D.1.1 also applies to nonattainment NSR. Sentences were added to Section D.1.1 to indicate what the PSD minor limit and nonattainment NSR minor limit were applicable to. Section D.1.1 has been revised.

D.1.1 PSD and Nonattainment NSR Minor Limit [326 IAC 2-2] [326 IAC 2-1.1-5]

- (a) Pursuant to Significant Permit Modification 057-25334-00002, the coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 1, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) Pursuant to Significant Permit Modification 057-25334-00002, the coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 2, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the above limits shall limit the PM from the entire source to less than 25 tons and the PM-10 from the entire source to less than 15 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable. Compliance with the above limits shall limit the PM-2.5 from the entire source to less than 10 tons per twelve (12) consecutive month period and render 326 IAC 2-1.1-5 not applicable.

- (d) The cover sheet to the Technical Support Document (TSD) incorrectly referenced the Gary Department of Environmental Affairs. This Addendum of the TSD has been revised.

*Indiana Department of Environmental Management
Office of Air Quality
And Gary Department of Environmental Affairs*

*Technical Support Document (TSD) for a
Part 70 Significant Permit Modification*

The IDEM does not amend the Technical Support Document (TSD). The TSD is maintained to document the original review. This addendum to the TSD is used to document comments, responses to comments and changes made from the time the permit was drafted until a final decision is made.

IDEM Contact

- (a) Questions regarding this proposed significant permit modification can be directed to John Haney at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5328 or toll free at 1-800-451-6027 extension 4-5328.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: July 29, 2008

Pollutant	PTE Before Controls (tons/yr)	PTE After Controls (tons/yr)
PM	153.45	24.40
PM-10	52.20	10.67
PM-2.5	11.29	3.52
SO ₂	0.81	0.81
VOC	0.97	0.97
CO	2.63	2.63
NO _x	12.22	12.22

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: July 29, 2008

PLANT 1

Unlimited Coke Throughput 438,000
Limited Coke Throughput 360,000

PM emissions before controls and throughput limitations

Transporting - Wheel Loaders		** see page 3 **	=	31.31	tons/yr	
Storage Piles		** see page 4 **	=	1.65	tons/yr	
¹⁾ Unloading Coke	438,000 tons/yr x 0.00011 lb PM/ton x 1 ton/2000 lbs		=	0.02	tons/yr	
²⁾ Screening - Single Deck	438,000 tons/yr x 0.025 lb PM/ton x 1 ton/2000 lbs		=	5.48	tons/yr	
³⁾ Conveying	438,000 tons/yr x 0.026 lb PM/ton x 1 ton/2000 lbs		=	11.39	tons/yr	
¹⁾ Loading Coke	438,000 tons/yr x 0.0088 lb PM/ton x 1 ton/2000 lbs		=	1.93	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				51.77	tons/yr	11.82 lb/hr
Combustion Engines				0.87	tons/yr	
Total PM Emissions Before Controls and Limitations:				52.64	tons/yr	

PM-10 emissions before controls and throughput limitations

Transporting - Wheel Loaders		** see page 3 **	=	7.98	tons/yr	
Storage Piles		** see page 4 **	=	0.82	tons/yr	
¹⁾ Unloading Coke	438,000 tons/yr x 0.000052 lb PM/ton x 1 ton/2000 lbs		=	0.01	tons/yr	
²⁾ Screening - Single Deck	438,000 tons/yr x 0.0087 lb PM/ton x 1 ton/2000 lbs		=	1.91	tons/yr	
³⁾ Conveying	438,000 tons/yr x 0.013 lb PM/ton x 1 ton/2000 lbs		=	5.69	tons/yr	
¹⁾ Loading Coke	438,000 tons/yr x 0.0043 lb PM/ton x 1 ton/2000 lbs		=	0.94	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				17.35	tons/yr	3.96 lb/hr
Combustion Engines				0.87	tons/yr	
Total PM-10 Emissions Before Controls and Limitations:				18.22	tons/yr	

PM-2.5 emissions before controls and throughput limitations

Transporting - Wheel Loaders		** see page 3 **	=	0.80	tons/yr	
Storage Piles		** see page 4 **	=	0.32	tons/yr	
¹⁾ Unloading Coke	438,000 tons/yr x 0.000015 lb PM/ton x 1 ton/2000 lbs		=	0.00	tons/yr	
²⁾ Screening - Single Deck	438,000 tons/yr x 0.000001 lb PM/ton x 1 ton/2000 lbs		=	0.00	tons/yr	
³⁾ Conveying	438,000 tons/yr x 0.0046 lb PM/ton x 1 ton/2000 lbs		=	2.01	tons/yr	
¹⁾ Loading Coke	438,000 tons/yr x 0.0016 lb PM/ton x 1 ton/2000 lbs		=	0.35	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				3.48	tons/yr	0.80 lb/hr
Combustion Engines				0.87	tons/yr	
Total PM-2.5 Emissions Before Controls and Limitations:				4.35	tons/yr	

PM emissions after controls and throughput limitations (controls shown as percentage)

Transporting - Wheel Loaders		** see page 3 **	x 10%	=	2.57	tons/yr
Storage Piles		** see page 4 **	x 50%	=	0.82	tons/yr
¹⁾ Unloading Coke	360,000 tons/yr x 0.00011 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.01	tons/yr	
²⁾ Screening - Single Deck	360,000 tons/yr x 0.025 lb PM/ton x 1 ton/2000 lbs x 50%		=	2.25	tons/yr	
³⁾ Conveying	360,000 tons/yr x 0.026 lb PM/ton x 1 ton/2000 lbs x 50%		=	4.68	tons/yr	
¹⁾ Loading Coke	360,000 tons/yr x 0.0088 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.79	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				11.12	tons/yr	2.54 lb/hr
Combustion Engines				0.87	tons/yr	
Total PM Emissions After Controls and Limitations:				11.99	tons/yr	

PM-10 emissions after controls and throughput limitations (controls shown as percentage)

Transporting - Wheel Loaders		** see page 3 **	x 10%	=	0.66	tons/yr
Storage Piles		** see page 4 **	x 50%	=	0.41	tons/yr
¹⁾ Unloading Coke	360,000 tons/yr x 0.000052 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.00	tons/yr	
²⁾ Screening - Single Deck	360,000 tons/yr x 0.0087 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.78	tons/yr	
³⁾ Conveying	360,000 tons/yr x 0.013 lb PM/ton x 1 ton/2000 lbs x 50%		=	2.34	tons/yr	
¹⁾ Loading Coke	360,000 tons/yr x 0.0043 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.39	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				4.58	tons/yr	1.05 lb/hr
Combustion Engines				0.87	tons/yr	
Total PM-10 Emissions After Controls and Limitations:				5.44	tons/yr	

PM-2.5 emissions after controls and throughput limitations (controls shown as percentage)

Transporting - Wheel Loaders		** see page 3 **	x 10%	=	0.07	tons/yr
Storage Piles		** see page 4 **	x 50%	=	0.16	tons/yr
¹⁾ Unloading Coke	360,000 tons/yr x 0.000015 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.00	tons/yr	
²⁾ Screening - Single Deck	360,000 tons/yr x 0.000001 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.00	tons/yr	
³⁾ Conveying	360,000 tons/yr x 0.0046 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.83	tons/yr	
¹⁾ Loading Coke	360,000 tons/yr x 0.0016 lb PM/ton x 1 ton/2000 lbs x 50%		=	0.14	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				1.20	tons/yr	0.27 lb/hr
Combustion Engines				0.87	tons/yr	
Total PM-2.5 Emissions After Controls and Limitations:				2.06	tons/yr	

PM Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): 0.06

= PM Noncombustion Emissions After Controls and Limitations (lb/yr) / Coke Throughput (tons/yr)

PM-10 Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): 0.03

= PM-10 Noncombustion Emissions After Controls and Limitations (lb/yr) / Coke Throughput (tons/yr)

PM-2.5 Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): 0.01

= PM-2.5 Noncombustion Emissions After Controls and Limitations (lb/yr) / Coke Throughput (tons/yr)

Methodology

¹⁾ The uncontrolled emission factor for the loading and unloading is the one for low silt batch drop from iron and steel mills (AP-42, Chapter 12.5, Table 12.5.4 (10/86)).

²⁾ Uncontrolled emission factor for fines screening from AP-42, Chapter 11.19.2 (crushed Stone Processing Operations), Table 11.19.2-2 (8/04). One screening unit is included in the calculation.

³⁾ Uncontrolled emission factor for conveying from AP-42, Chapter 12.5, Table 12.5.4 (10/86), and assumes all material is conveyed and transferred twice.

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: 7/29/2008

Estimated Maximum Production - Unlimited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT/yr)	Mean Weight (tons)
438,000	1.404	311,966	0.0379	11823.50	14.83

Estimated Maximum Production - limited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT/yr)	Mean Weight (tons)
360,000	1.404	256,410	0.0379	9717.95	14.83

Pollutant	Emission Factor (E)	Emissions - Unlimited (tpy)	Emissions - Limited & Uncontrolled (tpy)	Emissions - Limited & Uncontrolled (lb/hr)
PM	5.30	31.31	25.73	5.88
PM-10	1.35	7.98	6.56	1.50
PM-2.5	0.13	0.80	0.66	0.15

The source waters the unpaved roads, resulting in an estimated 90% PM control efficiency.
The following calculation determines the amount of emissions created by unpaved roads.
The equation and values are from AP-42 Ch. 13.2.2 (Fifth Edition, 12/03).

Eq. 1a: $E = k * (s/12)^a * (W/3)^b$
where E = calculated site specific emission factor (lb/VMT)
k = 4.9 particle size multiplier (k=4.9 for PM-30/TSP, k=1.5 for PM-10, k=0.15 for PM-2.5)
s = 4.8 mean % silt content of unpaved roads (provided by source)
a = 0.7 empirical constant (a=0.7 for PM-30/TSP, a=0.9 for PM-10, a=0.9 for PM-2.5)
b = 0.45 empirical constant (b=0.45 for PM-30/TSP, b=0.45 for PM-10, b=0.45 for PM-2.5)
W = 14.83 mean vehicle weight (tons)

Methodology

PM Emissions (tpy) = PM Emission Factor (E) * Vehicle Miles Traveled per yr / 2000
PM-10 Emissions (tpy) = PM-10 Emission Factor (E) * Vehicle Miles Traveled per yr / 2000
PM-2.5 Emissions (tpy) = PM-2.5 Emission Factor (E) * Vehicle Miles Traveled per yr / 2000

Coke weighs 26 lbs/cu ft, and 4 cu yd bucket = 108 cu ft. Therefore, 26 lbs/cu ft * 108 cu ft per bucket = 1.404 tons per bucket
200 ft per trip / 5280 ft per mile = 0.0379 miles per trip

Limited PM (lb/ton of coke) from transporting = 5.88 lb/hr ÷ 41.1 tons of coke/hr = 0.14 lb/ton of coke
Limited PM-10 (lb/ton of coke) from transporting = 1.50 lb/hr ÷ 41.1 tons of coke/hr = 0.04 lb/ton of coke
Limited PM-2.5 (lb/ton of coke) from transporting = 0.15 lb/hr ÷ 41.1 tons of coke/hr = 0.004 lb/ton of coke

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: 7/29/2008

PLANT 1

Unlimited Coke Throughput	438,000
Limited Coke Throughput	360,000

Fugitive Emissions from Storage Piles

Coal Storage Pile Area	1.50	acre	
Annual Pile Days	365	days/yr	
Coal Silt Content (s)	4.9	wt. %	AP-42; Table 13.2.4-1, Coal (as received); 11/06
Threshold Wind Speed (f)	15.0	% of time	% of time that wind speed exceeds 12 mph at mean pile height, from IDEM Met data file for Lake County at http://www.in.gov/idem/programs/air/modeling/index.html
Days with > 0.01" of precipitation (p)	125	days/yr	AP-42; Figure 13.2.2-1; 11/06 for NW Indiana
PM Particle Size Multiplier	1.0		Air Pollution Engineering Manual; p 136; AWMA; 1992
PM-10 Particle Size Multiplier	0.5		Air Pollution Engineering Manual; p 136; AWMA; 1992
PM-2.5 Particle Size Multiplier	0.2		Air Pollution Engineering Manual; p 136; AWMA; 1992
PM Emissions Factor	5.67	lb/acre/day	Air Pollution Engineering Manual; p 136; Eqn. 5; AWMA; 1992
PM-10 Emissions Factor	2.84	lb/acre/day	Air Pollution Engineering Manual; p 136; Eqn. 5; AWMA; 1992
PM-2.5 Emissions Factor	1.13	lb/acre/day	Air Pollution Engineering Manual; p 136; Eqn. 5; AWMA; 1992
Hourly PM Emissions	8.51	lb/hr	=B11*B3; hourly emissions assumed equal to daily
Hourly PM-10 Emissions	4.25	lb/hr	=B12*B3; hourly emissions assumed equal to daily
Hourly PM-2.5 Emissions	1.70	lb/hr	=B13*B3; hourly emissions assumed equal to daily
Annual PM Emissions	1.55	tpy	=B3*B4*B11/2000
Annual PM-10 Emissions	0.78	tpy	=B3*B4*B12/2000
Annual PM-2.5 Emissions	0.31	tpy	=B3*B4*B13/2000

Truck Loading Operations Disturbance of Finished Coke Piles

The following calculations determine the amount of emissions created by pile disturbance from truck loading, based on 8760 hours of use and AP-42, CH 13.2.4 (Fifth Edition, 1/95).

$$E = k * 0.0032 * (U/5)^{1.3} / (M/2)^{1.4}$$

where E = calculated emission factor (lb/ton)
k = 0.74 particle size multiplier (k=0.74 for PM-30, k=0.35 for PM-10, k=0.053 for PM-2.5)
U = 12 mile/hr mean wind speed
M = 15 % material moisture content

Emission Factor (E) PM =	4.401E-04
Emission Factor (E) PM-10 =	2.082E-04
Emission Factor (E) PM-2.5 =	3.152E-05

Truck Loading Emissions Unlimited

PM (tpy) = Throughput Unlimited (tpy) * Emis. Factor (E) PM ÷ 2000 lbs/ton =	0.10
PM-10 (tpy) = Throughput Unlimited (tpy) * Emis. Factor (E) PM-10 ÷ 2000 lbs/ton =	0.05
PM-2.5 (tpy) = Throughput Unlimited (tpy) * Emis. Factor (E) PM-2.5 ÷ 2000 lbs/ton =	0.007

Truck Loading Emissions Limited

PM (tpy) = Throughput Limited (tpy) * Emis. Factor (E) PM ÷ 2000 lbs/ton =	0.08
PM-10 (tpy) = Throughput Limited (tpy) * Emis. Factor (E) PM-10 ÷ 2000 lbs/ton =	0.04
PM-2.5 (tpy) = Throughput Limited (tpy) * Emis. Factor (E) PM-2.5 ÷ 2000 lbs/ton =	0.006

Total Emissions from Storage Piles Unlimited (tpy)	
PM	1.65
PM-10	0.82
PM-2.5	0.32

Total Emissions from Storage Piles Limited (tpy)	
PM	1.63
PM-10	0.81
PM-2.5	0.32

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: 7/29/2008

PLANT 1
Generators

Total Output (hp)	Unlimited hp-hr/yr
90.0	788,400

Pollutant	PM	PM-10	PM-2.5	SO2	VOC	CO	NOx
Emission Factor (lb/hp-hr)	2.20E-03	2.20E-03	2.20E-03	2.05E-03	2.47E-03	6.68E-03	3.10E-02
Potential Emissions (tons/yr)	0.87	0.87	0.87	0.81	0.97	2.63	12.22

Methodology

Emission Factors are from AP-42, Chapter 3.3, Table 3.3-1, SCC# 2-02-001-02 and 2-03-001-01, assuming PM-10 = PM2.5 = PM.
hp-hr/yr = hp * 8760 hr/yr
Emissions (tons/yr) =(Unlimited hp-hr/yr) x Emission Factor (lb/hp-hr) / 2000 lbs/ton

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: July 29, 2008

PLANT 2

Unlimited Coke Throughput 843,150
Limited Coke Throughput 360,000

PM emissions before controls and throughput limitations

Transporting - Wheel Loaders		** see page 3 **	=	60.27	tons/yr	
Storage Piles		** see page 4 **	=	4.33	tons/yr	
¹⁾ Unloading Coke	843,150 tons/yr x 0.00011 lb PM/ton x 1 ton/2000 lbs		=	0.05	tons/yr	
²⁾ Screening - Single Deck	843,150 tons/yr x 0.025 lb PM/ton x 1 ton/2000 lbs		=	10.54	tons/yr	
³⁾ Conveying	843,150 tons/yr x 0.026 lb PM/ton x 1 ton/2000 lbs		=	21.92	tons/yr	
¹⁾ Loading Coke	843,150 tons/yr x 0.0088 lb PM/ton x 1 ton/2000 lbs		=	3.71	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				100.81	tons/yr	23.02 lb/hr
Combustion Engines				0.00	tons/yr	
Total PM Emissions Before Controls and Limitations:				100.81	tons/yr	

PM-10 emissions before controls and throughput limitations

Transporting - Wheel Loaders		** see page 3 **	=	15.36	tons/yr	
Storage Piles		** see page 4 **	=	2.16	tons/yr	
¹⁾ Unloading Coke	843,150 tons/yr x 0.000052 lb PM/ton x 1 ton/2000 lbs		=	0.02	tons/yr	
²⁾ Screening - Single Deck	843,150 tons/yr x 0.0087 lb PM/ton x 1 ton/2000 lbs		=	3.67	tons/yr	
³⁾ Conveying	843,150 tons/yr x 0.013 lb PM/ton x 1 ton/2000 lbs		=	10.96	tons/yr	
¹⁾ Loading Coke	843,150 tons/yr x 0.0043 lb PM/ton x 1 ton/2000 lbs		=	1.81	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				33.98	tons/yr	7.76 lb/hr
Combustion Engines				0.00	tons/yr	
Total PM-10 Emissions Before Controls and Limitations:				33.98	tons/yr	

PM-2.5 emissions before controls and throughput limitations

Transporting - Wheel Loaders		** see page 3 **	=	1.54	tons/yr	
Storage Piles		** see page 4 **	=	0.84	tons/yr	
¹⁾ Unloading Coke	843,150 tons/yr x 0.000015 lb PM/ton x 1 ton/2000 lbs		=	0.01	tons/yr	
²⁾ Screening - Single Deck	843,150 tons/yr x 0.000001 lb PM/ton x 1 ton/2000 lbs		=	0.00	tons/yr	
³⁾ Conveying	843,150 tons/yr x 0.0046 lb PM/ton x 1 ton/2000 lbs		=	3.88	tons/yr	
¹⁾ Loading Coke	843,150 tons/yr x 0.0016 lb PM/ton x 1 ton/2000 lbs		=	0.67	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:				6.94	tons/yr	1.58 lb/hr
Combustion Engines				0.00	tons/yr	
Total PM-2.5 Emissions Before Controls and Limitations:				6.94	tons/yr	

PM emissions after controls and throughput limitations (controls shown as percentage)

Transporting - Wheel Loaders		** see page 3 **	x 10%	=	2.57	tons/yr
Storage Piles		** see page 4 **	x 50%	=	2.11	tons/yr
¹⁾ Unloading Coke	360,000 tons/yr x 0.00011 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.01	tons/yr
²⁾ Screening - Single Deck	360,000 tons/yr x 0.025 lb PM/ton x 1 ton/2000 lbs x 50%			=	2.25	tons/yr
³⁾ Conveying	360,000 tons/yr x 0.026 lb PM/ton x 1 ton/2000 lbs x 50%			=	4.68	tons/yr
¹⁾ Loading Coke	360,000 tons/yr x 0.0088 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.79	tons/yr
Total Noncombustion Emissions Before Controls and Limitations:				12.41	tons/yr	2.83 lb/hr
Combustion Engines				0.00	tons/yr	
Total PM Emissions After Controls and Limitations:				12.41	tons/yr	

PM-10 emissions after controls and throughput limitations (controls shown as percentage)

Transporting - Wheel Loaders		** see page 3 **	x 10%	=	0.66	tons/yr
Storage Piles		** see page 4 **	x 50%	=	1.05	tons/yr
¹⁾ Unloading Coke	360,000 tons/yr x 0.000052 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.00	tons/yr
²⁾ Screening - Single Deck	360,000 tons/yr x 0.0087 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.78	tons/yr
³⁾ Conveying	360,000 tons/yr x 0.013 lb PM/ton x 1 ton/2000 lbs x 50%			=	2.34	tons/yr
¹⁾ Loading Coke	360,000 tons/yr x 0.0043 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.39	tons/yr
Total Noncombustion Emissions Before Controls and Limitations:				5.22	tons/yr	1.19 lb/hr
Combustion Engines				0.00	tons/yr	
Total PM-10 Emissions After Controls and Limitations:				5.22	tons/yr	

PM-2.5 emissions after controls and throughput limitations (controls shown as percentage)

Transporting - Wheel Loaders		** see page 3 **	x 10%	=	0.07	tons/yr
Storage Piles		** see page 4 **	x 50%	=	0.42	tons/yr
¹⁾ Unloading Coke	360,000 tons/yr x 0.000015 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.00	tons/yr
²⁾ Screening - Single Deck	360,000 tons/yr x 0.000001 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.00	tons/yr
³⁾ Conveying	360,000 tons/yr x 0.0046 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.83	tons/yr
¹⁾ Loading Coke	360,000 tons/yr x 0.0016 lb PM/ton x 1 ton/2000 lbs x 50%			=	0.14	tons/yr
Total Noncombustion Emissions Before Controls and Limitations:				1.46	tons/yr	0.33 lb/hr
Combustion Engines				0.00	tons/yr	
Total PM-2.5 Emissions After Controls and Limitations:				1.46	tons/yr	

PM Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): 0.07

= PM Noncombustion Emissions After Controls and Limitations (lb/yr) / Coke Throughput (tons/yr)

PM-10 Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): 0.03

= PM-10 Noncombustion Emissions After Controls and Limitations (lb/yr) / Coke Throughput (tons/yr)

PM-2.5 Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): 0.01

= PM-2.5 Noncombustion Emissions After Controls and Limitations (lb/yr) / Coke Throughput (tons/yr)

Methodology

¹⁾ The uncontrolled emission factor for the loading and unloading is the one for low silt batch drop from iron and steel mills (AP-42, Chapter 12.5, Table 12.5.4 (10/86)).

²⁾ Uncontrolled emission factor for fines screening from AP-42, Chapter 11.19.2 (crushed Stone Processing Operations), Table 11.19.2-2 (8/04). One screening unit is included in the calculation.

³⁾ Uncontrolled emission factor for conveying from AP-42, Chapter 12.5, Table 12.5.4 (10/86), and assumes all material is conveyed and transferred twice.

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: 7/29/2008

Estimated Maximum Production - Unlimited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT/yr)	Mean Weight (tons)
843,150	1.404	600,534	0.0379	22760.25	14.83

Estimated Maximum Production - limited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT/yr)	Mean Weight (tons)
360,000	1.404	256,410	0.0379	9717.95	14.83

Pollutant	Emission Factor (E)	Emissions - Unlimited (tpy)	Emissions - Limited & Uncontrolled (tpy)	Emissions - Limited & Uncontrolled (lb/hr)
PM	5.30	60.27	25.73	5.88
PM-10	1.35	15.36	6.56	1.50
PM-2.5	0.13	1.54	0.66	0.15

The source waters the unpaved roads, resulting in an estimated 90% PM control efficiency. The following calculation determines the amount of emissions created by unpaved roads. The equation and values are from AP-42 Ch. 13.2.2 (Fifth Edition, 12/03).

Eq. 1a: $E = k * (s/12)^a * (W/3)^b$
 where E = calculated site specific emission factor (lb/VMT)
 k = 4.9 particle size multiplier (k=4.9 for PM-30/TSP, k=1.5 for PM-10, k=0.15 for PM-2.5)
 s = 4.8 mean % silt content of unpaved roads (provided by source)
 a = 0.7 empirical constant (a=0.7 for PM-30/TSP, a=0.9 for PM-10, a=0.9 for PM-2.5)
 b = 0.45 empirical constant (b=0.45 for PM-30/TSP, b=0.45 for PM-10, b=0.45 for PM-2.5)
 W = 14.83 mean vehicle weight (tons)

Methodology

PM Emissions (tpy) = PM Emission Factor (E) * Vehicle Miles Traveled per yr / 2000
 PM-10 Emissions (tpy) = PM-10 Emission Factor (E) * Vehicle Miles Traveled per yr / 2000
 PM-2.5 Emissions (tpy) = PM-2.5 Emission Factor (E) * Vehicle Miles Traveled per yr / 2000

Coke weighs 26 lbs/cu ft, and 4 cu yd bucket = 108 cu ft. Therefore, 26 lbs/cu ft * 108 cu ft per bucket = 1.404 tons per bucket
 200 ft per trip / 5280 ft per mile = 0.0379 miles per trip

Limited PM (lb/ton of coke) from transporting =	5.88 lb/hr ÷	41.1 tons of coke/hr =	0.14 lb/ton of coke
Limited PM-10 (lb/ton of coke) from transporting =	1.50 lb/hr ÷	41.1 tons of coke/hr =	0.04 lb/ton of coke
Limited PM-2.5 (lb/ton of coke) from transporting =	0.15 lb/hr ÷	41.1 tons of coke/hr =	0.004 lb/ton of coke

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: 7/29/2008

PLANT 1

Unlimited Coke Throughput	843,150
Limited Coke Throughput	360,000

Fugitive Emissions from Storage Piles

Coal Storage Pile Area	4.00	acre	
Annual Pile Days	365	days/yr	
Coal Silt Content (s)	4.9	wt. %	AP-42; Table 13.2.4-1, Coal (as received); 11/06
Threshold Wind Speed (f)	15.0	% of time	% of time that wind speed exceeds 12 mph at mean pile height, from IDEM Met data file for Lake County at http://www.in.gov/idem/programs/air/modeling/index.html
Days with > 0.01" of precipitation (p)	125	days/yr	AP-42; Figure 13.2.2-1; 11/06 for NW Indiana
PM Particle Size Multiplier	1.0		Air Pollution Engineering Manual; p 136; AWMA; 1992
PM-10 Particle Size Multiplier	0.5		Air Pollution Engineering Manual; p 136; AWMA; 1992
PM-2.5 Particle Size Multiplier	0.2		Air Pollution Engineering Manual; p 136; AWMA; 1992
PM Emissions Factor	5.67	lb/acre/day	Air Pollution Engineering Manual; p 136; Eqn. 5; AWMA; 1992
PM-10 Emissions Factor	2.84	lb/acre/day	Air Pollution Engineering Manual; p 136; Eqn. 5; AWMA; 1992
PM-2.5 Emissions Factor	1.13	lb/acre/day	Air Pollution Engineering Manual; p 136; Eqn. 5; AWMA; 1992
Hourly PM Emissions	22.69	lb/hr	=B11*B3; hourly emissions assumed equal to daily
Hourly PM-10 Emissions	11.34	lb/hr	=B12*B3; hourly emissions assumed equal to daily
Hourly PM-2.5 Emissions	4.54	lb/hr	=B13*B3; hourly emissions assumed equal to daily
Annual PM Emissions	4.14	tpy	=B3*B4*B11/2000
Annual PM-10 Emissions	2.07	tpy	=B3*B4*B12/2000
Annual PM-2.5 Emissions	0.83	tpy	=B3*B4*B13/2000

Truck Loading Operations Disturbance of Finished Coke Piles

The following calculations determine the amount of emissions created by pile disturbance from truck loading, based on 8760 hours of use and AP-42, CH 13.2.4 (Fifth Edition, 1/95).

$$E = k * 0.0032 * (U/5)^{1.3} / (M/2)^{1.4}$$

where E = calculated emission factor (lb/ton)

k =	0.74	particle size multiplier (k=0.74 for PM-30, k=0.35 for PM-10, k=0.053 for PM-2.5)
U =	12	mile/hr mean wind speed
M =	15	% material moisture content

Emission Factor (E) PM =	4.401E-04
Emission Factor (E) PM-10 =	2.082E-04
Emission Factor (E) PM-2.5 =	3.152E-05

Truck Loading Emissions Unlimited

PM (tpy) = Throughput Unlimited (tpy) * Emis. Factor (E) PM ÷ 2000 lbs/ton =	0.19
PM-10 (tpy) = Throughput Unlimited (tpy) * Emis. Factor (E) PM-10 ÷ 2000 lbs/ton =	0.09
PM-2.5 (tpy) = Throughput Unlimited (tpy) * Emis. Factor (E) PM-2.5 ÷ 2000 lbs/ton =	0.013

Truck Loading Emissions Limited

PM (tpy) = Throughput Limited (tpy) * Emis. Factor (E) PM ÷ 2000 lbs/ton =	0.08
PM-10 (tpy) = Throughput Limited (tpy) * Emis. Factor (E) PM-10 ÷ 2000 lbs/ton =	0.04
PM-2.5 (tpy) = Throughput Limited (tpy) * Emis. Factor (E) PM-2.5 ÷ 2000 lbs/ton =	0.006

Total Emissions from Storage Piles Unlimited (tpy)	
PM	4.33
PM-10	2.16
PM-2.5	0.84

Total Emissions from Storage Piles Limited (tpy)	
PM	4.22
PM-10	2.11
PM-2.5	0.83

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: 7/29/2008

Plant 1

Pollutant	Emissions (tpy) [Total (8)]	Emissions (tpy) [Unlisted (5/8)]	Exemption Level
PM	4.68	2.93	<5
PM-10	2.34	1.46	<5
PM-2.5	0.83	0.52	<5

Plant 2

Pollutant	Emissions (tpy) [Total (14)]	Emissions (tpy) [Unlisted (9/14)]	Exemption Level
PM	4.68	3.01	<5
PM-10	2.34	1.50	<5
PM-2.5	0.83	0.53	<5

Indiana Department of Environmental Management
Office of Air Quality
And Gary Department of Environmental Affairs

Technical Support Document (TSD) for a
Part 70 Significant Permit Modification

Source Description and Location

Source Name:	Mid-Continent Coal & Coke Company
Source Location:	One North Broadway, Gary, IN 46402
County:	Lake
SIC Code:	5052
Operation Permit No.:	T089-8064-00173
Operation Permit Issuance Date:	June 30, 2006
Significant Permit Modification No.:	089-25334-00173
Permit Reviewer:	John Haney

Source Definition

US Steel - Gary Works is an integrated steel mill that consists of a main mill and an on-site contractor:

- (a) US Steel - Gary Works, the primary operation, is located at One North Broadway, Gary, IN 46402; and
- (b) Mid-Continent Coal & Coke Company, the supporting operation, is located at One North Broadway, Gary, IN 46402.

IDEM has determined that US Steel - Gary Works (089-00121) and Mid-Continent Coal & Coke Company (089-00173) are under the common control of US Steel - Gary Works. These two plants are considered one source due to contractual control. Therefore, the term "source" in the Part 70 documents refers to both US Steel - Gary Works and Mid-Continent Coal & Coke Company as one source.

Existing Approvals

The source was issued Part 70 Operating Permit No. T089-8064-00173 on June 30, 2006. The source has since received the following approvals:

- (a) First Minor Permit Modification No. 089-24352-00173, issued on July 19, 2007.

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148 th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O ₃	Nonattainment Subpart 2 Moderate effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.

¹Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005.
 Basic nonattainment designation effective federally April 5, 2005, for PM2.5.

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.
 - (i) 1-hour ozone standard
 On December 22, 2006 the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver

of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

- (ii) 8-hour ozone standard
VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

- (b) PM2.5
U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5.
- (c) Other Criteria Pollutants
Lake County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Since this source is classified as a steel mill, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (e) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	greater than 100
PM10	greater than 100
SO ₂	greater than 100
VOC	greater than 100
CO	greater than 100
NO _x	greater than 100

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

- (b) This existing source is a major stationary source, under Emission Offset (326 IAC 2-3), because VOC and NO_x, nonattainment regulated pollutants, are emitted at a rate of 100 tons per year or more. This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since PM₁₀ (a surrogate for PM_{2.5}) is emitted at a rate of 100 tons per year or more.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

Pollutant	Actual Emissions (ton/yr)
PM	11
PM ₁₀	11
SO ₂	1
VOC	1
CO	2
NO _x	9
HAP	not reported
Total HAPs	not reported

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Mid-Continent Coal & Coke Company, relating to correct the facility descriptions and for the addition of a throughput limit. The following is a list of the modified emission units:

- (a) One (1) re-screening operation, identified as Plant No. 1, constructed in 1981, with a maximum capacity of 50 tons per hour of coke or coal, consisting of the following:
- (1) one (1) feed hopper;
 - (2) eight (8) conveyors;
 - (3) one (1) vibrator screen for processing;
 - (4) one and a half (1.5) acre of coke storage piles with throughput of 40,838 tons per year; and
 - (5) Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.
- (b) One (1) re-screening operation, identified as Plant No. 2, constructed in 1981, with a maximum capacity of 96.25 tons per hour of coke, consisting of the following:
- (1) one (1) feed hopper;
 - (2) fourteen (14) conveyors;
 - (3) two (2) pep screens;
 - (4) one (1) triple deck vibrator screen;

- (5) four (4) acres of coke storage piles with a throughput of 184,800 tons per year; and
- (6) Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.

Additionally, Mid-Continent Coal and Coke Company will take the following throughput limits:

- (a) The coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 1, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 2, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

Based on the data submitted (see Appendix A of this Technical Support Document for detailed emission calculations) and the provisions in 326 IAC 2-1.1-3, it has been determined that the following sources of the stationary raw material segregation of metallurgical coke and coal operation located at One North Broadway, Gary, Indiana, are classified as exempt from air pollution permit requirements:

- (a) five (5) conveyors; sub-components of one (1) re-screening operation, identified as Plant No. 1; and
- (b) nine (9) conveyors; sub-components of one (1) re-screening operation, identified as Plant No. 2.

This modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d)(1) because this modification adds a record keeping and reporting requirement.

Permit Level Determination – PSD or Emission Offset

This modification to an existing major stationary source is not major because there is no increase in emissions. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

This modification to an existing major stationary source is not major because there is no increase in emissions. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

NSPS:

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

NESHAP:

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

CAM:

- (d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

- (1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

Since this modification does not add any new equipment, the requirements of 40 CFR 64, CAM do not apply.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

This modification to an existing major stationary source is not major because there is no increase in emissions. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply, and, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

326 IAC 2-6 (Emission Reporting)

Since this source is located in Lake County, and has a potential to emit NO_x and/or VOC greater than or equal to twenty-five (25) tons per year, an emission statement covering the previous calendar year must be submitted by July 1 of each year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 6-4-2 (Fugitive Dust Emissions)

- (a) Pursuant to 326 IAC 6-4-2:
- (1) The brazing equipment, cutting torches, soldering equipment, and welding equipment generating fugitive dust shall be in violation of this rule (326 IAC 6-4) if any of the following criteria are violated:
 - (A) A source or combination of sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = \frac{100(R - U)}{U}$$

Where

P = Percentage increase

R = Number of particles of fugitive dust measured at downward receptor site

U = Number of particles of fugitive dust measured at upwind or background site

- (B) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in subdivision (1) of this section shall be modified as follows:

$$PR = (1.5 \pm N) P$$

Where

N = Fraction of fugitive dust that is respirable dust;

PR = allowable percentage increase in dust concentration above background; and

P = no value greater than sixty-seven percent (67%).

- (C) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.
- (D) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (1), (2) or (3) of this section. 326 IAC 6-4-2(4) is not federally enforceable.
- (2) Pursuant to 326 IAC 6-4-6(6) (Exceptions), fugitive dust from a source caused by adverse meteorological conditions will be considered an exception to this rule (326 IAC 6-4) and therefore not in violation.
- (b) Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)) Lake County Fugitive Particulate Matter Emissions Limitations, fugitive emissions from the brazing equipment, cutting torches, soldering equipment, and welding equipment generating fugitive dust shall comply with the emissions limitations in Section C - Fugitive Dust Emissions.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements applicable to this modification are as follows:

- (a) Mid-Continent Coal & Coke Company has applicable compliance determination conditions as specified below:

- (1) The dust suppression used as control for the fugitive particulate emissions from the fugitive dust sources shall be applied as often as necessary to control fugitive dust.

The compliance monitoring requirements applicable to this modification are as follows:

- (b) Mid-Continent Coal & Coke Company has applicable compliance monitoring conditions as specified below:
 - (1) the Permittee shall maintain a daily record of visible emission notations of the Plant No. 1: feeder hopper, conveyers and vibrator screen and Plant No. 2: feeder hopper, conveyers, pep screens and vibrator screen and stacking conveyor CS-01;
 - (2) the total throughput of coke and/or coal to Plant 1 shall be limited to 360,000 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month; and
 - (3) the total throughput of coke and/or coal to Plant 2 shall be limited to 360,000 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.

These monitoring conditions are necessary because the facility must operate properly to ensure compliance with 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T089-8064-00173. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

- (a) **Modified Descriptions of Emission Units**
Sections A.3 and D.1 have been revised accordingly with the following modified descriptions of the emission units.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

Mid-Continent Coal & Coke Company consists of the following:

- (a) One (1) re-screening operation, identified as Plant No. 1, constructed in 1981, ~~utilizing front end loaders to feed sump coke and coke into the one (1) feeder hopper and three (3) rubber conveyers to move that transfer the sump coke and coke to the one (1) vibrator screen for processing. with a maximum capacity of 50 tons per hour of coke or coal, consisting of the following:~~
 - (1) ~~When processing sump coke, the maximum re-screening capacity is 25 tons per hour of unscreened raw material.~~
 - (2) ~~One (1) acre of Sump Coke storage piles with a throughput of 48,000 tons per year.~~
 - (3) ~~When processing coke, the maximum re-screening capacity is 50 tons per hour of unscreened raw material.~~
 - (4) ~~One half (0.5) acre of coke storage piles with throughput of 5,000 tons per year.~~
 - (1) **one (1) feed hopper;**
 - (2) **eight (8) conveyors;**

- (3) **one (1) vibrator screen for processing;**
 - (4) **one and a half (1.5) acre of coke storage piles with throughput of 40,838 tons per year; and**
 - (5) **Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.**
- (b) One (1) re-screening operation, identified as Plant No. 2, constructed in 1981, with a maximum capacity of 96.25 tons per hour of coke, consisting of the following equipment:
- ~~(1) Four (4) diesel powered front end loaders identified as CAT950J#130 (130 Hp), CAT970F#672 (250 Hp), CAT970F#858 (250 Hp) and CAT966F#096 (220 Hp) drop the coke into the one (1) feeder hopper, then five (5) conveyers that transfer the coke to the two (2) pep screens and one (1) triple deck vibrator screen for separation.~~
 - ~~(2) Four (4) acres of coke storage piles with a throughput of 184,800 tons per year.~~
 - (1) **one (1) feed hopper;**
 - (2) **fourteen (14) conveyors;**
 - (3) **two (2) pep screens;**
 - (4) **one (1) triple deck vibrator screen;**
 - (5) **four (4) acres of coke storage piles with a throughput of 184,800 tons per year; and**
 - (6) **Caterpillar wheel loaders with each having a minimum of a four (4) cubic yard bucket and a vehicle weight of 29657 lbs traveling on paved and unpaved roads. Based on calculations, use of any larger capacity wheel loader would be acceptable since it would reduce vehicle miles traveled and fugitive emissions.**

(b) **Section A**
Section A.4 has been corrected of numbering errors.

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

Mid-Continent Coal & Coke Company also includes the following specifically regulated insignificant activities, as defined in 326 IAC 2-7-1(21);

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (b) ~~(4)~~ A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(c) **Section C – Open Burning**

The last sentence of original Condition C.2 – Open Burning was deleted because the provisions of 326 IAC 4-1 are federally enforceable and are included in Indiana’s State Implementation Plan (SIP).

C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. ~~326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.~~

(d) **Section C – Incineration**

The last sentence of original Condition C.3 – Incineration was deleted because the provisions of 326 IAC 9-1-2 are federally enforceable and are included in Indiana’s State Implementation Plan (SIP).

C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. ~~326 IAC 9-1-2 is not federally enforceable.~~

(e) **Section C – Emergency Reduction Plans**

Section C.11(b) has been revised to specify the permit referenced.

C.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within ninety (90) days after the date of issuance of this permit **Part 70 Operating Permit No. T089-8064-00173.**

The ERP does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(f) **Section C – General Record Keeping Requirements – NSR Major**

The clean unit and pollution control project provisions of the U.S. EPA’s New Source Review Reform Rules were vacated on June 24, 2005 by a United States Court of Appeals for the District of Columbia Circuit decision. The OAQ plans to remove the vacated provisions from 326 IAC 2 at the next state rulemaking opportunity. Paragraph (c) of Condition C.16, Record Keeping Requirements, has been revised to remove references to the clean unit and pollution control project provisions. On January 22, 2008, U.S. EPA promulgated a rule to address the remand, by the U.S. Court of Appeals for the District of Columbia on June 25, 2005, of the reasonable possibility provisions of the December 31, 2002 major NSR reform rule. IDEM has agreed, with U.S. EPA, to interpret “reasonable possibility” in 326 IAC 2-2 and 326 IAC 2-3 consistent with the January 22, 2008 U.S. EPA rule. To implement this interpretation, IDEM is revising Section C - General Record Keeping Requirements and Section C - General Reporting Requirements. Revisions to have been made to the Section C – General Recordkeeping and Section C – General Reporting Requirements (original Conditions C.16 and C.17) to reflect NSR (New Source Review) reform provisions at the major sources.

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(c) If there is a **reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b))** that

a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, or **other than projects** at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

- (1) ~~Prior to commencing the~~ **Before beginning actual** construction of the “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
- (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

- ~~(1)~~ **(1)** Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
- ~~(2)~~ **(2)** Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

- (f) If the Permittee is required to comply with the recordkeeping provisions of ~~(e)~~ **(d)** in Section C- General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (II)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with ~~(c)(2) and (3)~~ **(d)(1) and (2)** in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (g) **Section D – PSD Minor Limit**
Section D.1.1 has been added to the permit to limit the facility's throughput. The remaining parts of Section D.1 have been renumbered accordingly.

D.1.1 PSD Minor Limit [326 IAC 2-2]

-
- (a) **Pursuant to Significant Permit Modification 057-25334-00002, the coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 1, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**
- (b) **Pursuant to Significant Permit Modification 057-25334-00002, the coke and/or coal throughput to the one (1) re-screening operation, identified as Plant No. 2, shall be limited to less than 360,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**

- (h) **Section D – Fugitive Dust Emission Limitations**
The formula used to calculate fugitive dust concentrations in Sections D.1.2 and D.2.1 has been corrected of typographical errors.

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 089-25334-00173. The staff recommends to the Commissioner that this Part 70 Significant Permit Modification be approved.

Appendix A: Emissions Calculations
Emissions from Coke Processing Prior to this Modification

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Modification Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: May 1, 2008

Pollutant	PTE Before Controls (tons/yr)	PTE After Controls (tons/yr)
PM	153.34	24.40
PM10	55.00	12.09
SO2	0.81	0.81
VOC	0.97	0.97
CO	2.63	2.63
NOx	12.22	12.22

Appendix A: Emissions Calculations
PM/PM-10 Emissions from Coke Processing Prior to this Modification for Plant 1

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Modification Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: May 1, 2008

Unlimited Coke Throughput 438,000
 Limited Coke Throughput 360,000

**** PM emissions before controls and throughput limitations****

Transporting									31.31	tons/yr	
Storage Piles									1.65	tons/yr	
¹⁾ Unloading Coke	438,000	ton/yr x	0.00011	lb PM/ton	x	1/2000	ton/lb	=	0.02	tons/yr	
²⁾ Screening - Single Deck	438,000	ton/yr x	0.025	lb PM/ton	x	1/2000	ton/lb	=	5.48	tons/yr	
³⁾ Conveying	438,000	ton/yr x	0.026	lb PM/ton	x	1/2000	ton/lb	=	11.39	tons/yr	
¹⁾ Loading Coke	438,000	ton/yr x	0.0088	lb PM/ton	x	1/2000	ton/lb	=	1.93	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:									51.77	tons/yr	11.82 lb/hr
Combustion Engines									0.87	tons/yr	
Total Emission Before Controls and Limitations:									52.64	tons/yr	

**** PM-10 emissions before controls and throughput limitations****

Transporting									7.98	tons/yr	
Storage Piles									1.60	tons/yr	
¹⁾ Unloading Coke	438,000	ton/yr x	0.000052	lb PM-10/ton	x	1/2000	ton/lb	=	0.01	tons/yr	
²⁾ Screening - Single Deck	438,000	ton/yr x	0.0087	lb PM-10/ton	x	1/2000	ton/lb	=	1.91	tons/yr	
³⁾ Conveying	438,000	ton/yr x	0.013	lb PM-10/ton	x	1/2000	ton/lb	=	5.69	tons/yr	
¹⁾ Loading Coke	438,000	ton/yr x	0.0043	lb PM-10/ton	x	1/2000	ton/lb	=	0.94	tons/yr	
Total Noncombustion Emissions Before Controls and Limitations:									18.13	tons/yr	4.14 lb/hr
Combustion Engines									0.87	tons/yr	
Total Emission Before Controls and Limitations:									19.00	tons/yr	

**** PM emissions after controls and limitations (controls shown as percentage)****

Transporting-Wheel Loaders									2.57	tons/yr	
Storage Piles									0.82	tons/yr	
¹⁾ Unloading Coke	360,000	ton/yr x	0.00011	lb PM/ton	x	1/2000	x	50%	=	0.01	tons/yr
²⁾ Screening - Single Deck	360,000	ton/yr x	0.025	lb PM/ton	x	1/2000	x	50%	=	2.25	tons/yr
³⁾ Conveying	360,000	ton/yr x	0.026	lb PM/ton	x	1/2000	x	50%	=	4.68	tons/yr
¹⁾ Loading Coke	360,000	ton/yr x	0.0088	lb PM/ton	x	1/2000	x	50%	=	0.79	tons/yr
Total Noncombustion Emissions After Controls and Limitations:									11.12	tons/yr	2.54 lb/hr
Combustion Engines									0.87	tons/yr	
Total Emission After Controls and Limitations:									11.99	tons/yr	

**** PM-10 emissions after controls and limitations (controls shown as percentage)****

Transporting-Wheel Loaders									0.66	tons/yr	
Storage									0.80	tons/yr	
¹⁾ Unloading Coke	360,000	ton/yr x	0.000052	lb PM-10/ton	x	1/2000	x	50%	=	0.00	tons/yr
²⁾ Screening - Single Deck	360,000	ton/yr x	0.0087	lb PM-10/ton	x	1/2000	x	50%	=	0.78	tons/yr
³⁾ Conveying	360,000	ton/yr x	0.013	lb PM-10/ton	x	1/2000	x	50%	=	2.34	tons/yr
¹⁾ Loading Coke	360,000	ton/yr x	0.0043	lb PM-10/ton	x	1/2000	x	50%	=	0.39	tons/yr
Total Noncombustion Emissions After Controls and Limitations:									4.97	tons/yr	1.13 lb/hr
Combustion Engines									0.87	tons/yr	
Total Emission After Controls and Limitations:									5.83	tons/yr	

PM Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): **0.06**
 = PM Fugitive Emissions After Controls and Limitations (lb/yr) / Coke Throughput (ton/yr)

PM10 Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): **0.05**
 =(PM10 Emissions (15 ton/yr)*2000(lb/tons) - PM10 Combustion Emissions (lb/yr)) / Coke throughput (ton/yr)

Methodology

- ¹⁾ The uncontrolled emission factor for the loading and unloading is the one for low silt batch drop from iron and steel mills. (AP-42, Chapter 12.5, Table 12.5.4 (10/86)).
- ²⁾ Uncontrolled emission factor for fines screening from AP-42, Chapter 11.19.2 (Crushed Stone Processing Operations), Table 11.19.2-2 (8/04). One screening unit is included in the calculation.
- ³⁾ Uncontrolled emission factor for conveying from AP-42, Chapter 12.5, Table 12.5.4 (10/86), and assumes all material is conveyed and transferred twice.

Appendix A: Emissions Calculations
PM Emissions Calculations
Unpaved Roads - Transporting with wheel loaders

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Modification Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: May 1, 2008

* * unpaved roads - transporting with wheel loaders * *

Estimated Maximum Production - Unlimited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Mean Weight (tons)
438,000	1.40	311,966	0.0379	11823.50	14.83

Estimated Maximum Production - Limited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Mean Weight (tons)
360,000	1.40	256,410	0.0379	9717.95	14.83

Pollutant	Emission Factor (E)	Emissions (tpy) (unlimited)	Emissions (tpy) (limited/uncontrolled)	Emissions (limited) (lb/hr)
PM	5.30	31.31	25.73	5.87
PM10	1.35	7.98	6.56	1.50

The source waters the unpaved roads, resulting in an estimated 90% PM control efficiency. The following calculation determines the amount of emissions created by unpaved roads. The equation and values are from AP-42 Ch. 13.2.2 (Fifth Edition, 12/03).

Eq. 1a: $E = k * (s/12)^a * (W/3)^b$
where E = calc. site specific emission factor (lb/VMT)
k = 4.9 particle size multiplier (k=4.9 for PM-30 or TSP, k=1.5 for PM-10)
s = 4.8 mean % silt content of unpaved roads (provide by source)
a = 0.7 empirical constant (a= 0.7 for PM-30 or TSP, a=0.9 for PM-10)
b = 0.45 empirical constant (b= 0.45 for PM-30 or TSP and PM-10)
W = 14.83 mean vehicle weight (tons)

Methodology

PM Emissions (tpy) = PM Emission Factor (E) * Vehicle Miles Traveled per yr / 2000

PM10 Emissions (tpy) = PM10 Emission Factor (E) * Vehicle Miles Traveled per yr / 2000

Coke weighs 26 lbs/cu ft, and 4 cu yd bucket = 108 cu ft. Therefore, 26 lbs/cu ft * 108 cu ft per bucket = 1.40 tons per bucket
200 ft per trip / 5280 ft per mile = 0.0379 miles per trip

Limited PM (lb/ton of coke) from Transporting = 2.29 lb/hr ÷ 13.9 tons of coke/hr = 0.16 lb/ton of coke

Limited PM10 (lb/ton of coke) from Transporting = 0.58 lb/hr ÷ 13.9 tons of coke/hr = 0.04 lb/ton of coke

**Appendix A: Emissions Calculations
PM Emissions from Coke Handling**

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Modification Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: May 1, 2008

Fugitive Emissions from Storage Piles

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$E_f = 1.7 * (s/1.5) * (365-p)/235 * (f/15)$$

where s = 4.9 % silt content of material
 p = 125 days of rain greater than or equal to 0.01 inches
 f = 15 % of wind greater than or equal to 12 mph
 = 5.67 lb/acre/day

Storage capacity (sc) of site (tons) = (# acres) * (43560 sqft/acre) * (25 ft high) * (1/40 ton/cuft)
 Storage capacity (sc) of site (tons) = 40837.5

Ep (storage) = Ef * sc * 40 cuft/ton * 365 day/yr / (2000 lb/ton * 43560 sqft/acre * 25 ft)
 where sc = 40,838 tons storage capacity

Ep = 1.55 tons/yr Note: PM = PM-10 Emissions

The following calculations determine the amount of emissions created by pile disturbance from truck loading, based on 8760 hours of use and AP-42, Ch 13.2.4 (Fifth edition, 1/95).

Truck Loading Operations Disturbance of Finished Coke Piles

$$E = k * 0.0032 * (U/5)^{1.3} / (M/2)^{1.4}$$

where k = 0.74 particle size multiplier (k=0.74 for PM, k=0.35 for PM-10)
 U = 12 mile/hr mean wind speed
 M = 15 % material moisture content

Emission Factor (E) PM = 4.401E-04
 Emission Factor (E) PM-10 = 2.082E-04

Throughput (tpy) unlimited 438,000
 Throughput (tpy) limited 360,000

PM Emissions Unlimited (tpy) = Throughput Unlimited (tpy) * Emissions Factor (E) PM = 0.10
 PM-10 Emissions Unlimited (tpy) = Throughput Unlimited (tpy) * Emissions Factor (E) PM-10 = 0.05

PM Emissions (tpy) = Throughput (tpy) * Emissions Factor (E) PM 0.08
 PM-10 Emissions (tpy) = Throughput (tpy) * Emissions Factor (E) PM-10 0.04

Total Emissions from Storage Piles Unlimited	
PM	1.65
PM-10	1.60

Total Emissions from Storage Piles Limited	
PM	1.63
PM-10	1.59

Appendix A: Emissions Calculations
PM/PM-10 Emissions from Coke Processing Prior to this Modification for Plant 2

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Modification Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: May 1, 2008

Unlimited Coke Throughput 843,150
 Limited Coke Throughput 360,000

** PM emissions before controls and throughput limitations**										
Transporting									60.27	tons/yr
Storage Piles									4.22	tons/yr
									0.05	tons/yr
¹⁾ Unloading Coke	843,150	ton/yr x	0.00011	lb PM/ton	x	1/2000	ton/lb	=	10.54	tons/yr
²⁾ Screening - Single Deck	843,150	ton/yr x	0.025	lb PM/ton	x	1/2000	ton/lb	=	21.92	tons/yr
³⁾ Conveying	843,150	ton/yr x	0.026	lb PM/ton	x	1/2000	ton/lb	=	3.71	tons/yr
¹⁾ Loading Coke	843,150	ton/yr x	0.0088	lb PM/ton	x	1/2000	ton/lb	=		
Total Noncombustion Emissions Before Controls and Limitations:										
									100.70	tons/yr
Combustion Engines									0.00	tons/yr
Total Emission Before Controls and Limitations:									100.70	tons/yr

** PM-10 emissions before controls and throughput limitations**										
Transporting									15.36	tons/yr
Storage Piles									4.18	tons/yr
									0.02	tons/yr
¹⁾ Unloading Coke	843,150	ton/yr x	0.00052	lb PM-10/ton	x	1/2000	ton/lb	=	3.67	tons/yr
²⁾ Screening - Single Deck	843,150	ton/yr x	0.0087	lb PM-10/ton	x	1/2000	ton/lb	=	10.96	tons/yr
³⁾ Conveying	843,150	ton/yr x	0.013	lb PM-10/ton	x	1/2000	ton/lb	=	1.81	tons/yr
¹⁾ Loading Coke	843,150	ton/yr x	0.0043	lb PM-10/ton	x	1/2000	ton/lb	=		
Total Noncombustion Emissions Before Controls and Limitations:										
									36.00	tons/yr
Combustion Engines									0.00	tons/yr
Total Emission Before Controls and Limitations:									36.00	tons/yr

** PM emissions after controls and limitations (controls shown as percentage)**										
Transporting-Wheel Loaders									2.57	tons/yr
Storage Piles									2.11	tons/yr
									0.01	tons/yr
¹⁾ Unloading Coke	360,000	ton/yr x	0.00011	x 1/2000	x	50%	=	2.25	tons/yr	
²⁾ Screening - Single Deck	360,000	ton/yr x	0.025	x 1/2000	x	50%	=	4.68	tons/yr	
³⁾ Conveying	360,000	ton/yr x	0.026	x 1/2000	x	50%	=	0.79	tons/yr	
¹⁾ Loading Coke	360,000	ton/yr x	0.0088	x 1/2000	x	50%	=			
Total Noncombustion Emissions After Controls and Limitations:										
									12.41	tons/yr
Combustion Engines									0.00	tons/yr
Total Emission After Controls and Limitations:									12.41	tons/yr

** PM-10 emissions after controls and limitations (controls shown as percentage)**										
Transporting-Wheel Loaders									0.66	tons/yr
Storage									2.09	tons/yr
									0.00	tons/yr
¹⁾ Unloading Coke	360,000	ton/yr x	0.0043	x 1/2000	x	50%	=	0.78	tons/yr	
²⁾ Screening - Single Deck	360,000	ton/yr x	0.0087	x 1/2000	x	50%	=	2.34	tons/yr	
³⁾ Conveying	360,000	ton/yr x	0.013	x 1/2000	x	50%	=	0.39	tons/yr	
¹⁾ Loading Coke	360,000	ton/yr x	0.0043	x 1/2000	x	50%	=			
Total Noncombustion Emissions After Controls and Limitations:										
									6.26	tons/yr
Combustion Engines									0.00	tons/yr
Total Emission After Controls and Limitations:									6.26	tons/yr

PM Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): **0.06**
 = PM Fugitive Emissions After Controls and Limitations (lb/yr) / Coke throughput (ton/yr)

PM10 Fugitive Emissions After Controls and Limitations (lb/ton of coke throughput): **0.04**
 = (PM10 Emissions (15 ton/yr)*2000(lb/tons) - PM10 Combustion Emissions (lb/yr)) / Coke throughput (ton/yr)

Methodology

- ¹⁾ The uncontrolled emission factor for the loading and unloading is the one for low silt batch drop from iron and steel mills. (AP-42, Chapter 12.5, Table 12.5.4 (10/86)).
- ²⁾ Uncontrolled emission factor for fines screening from AP-42, Chapter 11.19.2 (Crushed Stone Processing Operations), Table 11.19.2-2 (8/04). 1 screening unit is included in the calculation.
- ³⁾ Uncontrolled emission factor for conveying from AP-42, Chapter 12.5, Table 12.5.4 (10/86), and assumes all material is conveyed and transferred twice.

Appendix A: Emissions Calculations
PM Emissions Calculations
Unpaved Roads - Transporting with wheel loaders

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Modification Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: May 1, 2008

* * unpaved roads - transporting with wheel loaders * *

Estimated Maximum Production - Unlimited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Mean Weight (tons)
843,150	1.40	600,534	0.0379	22760.25	14.83

Estimated Maximum Production - Limited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Mean Weight (tons)
360,000	1.40	256,410	0.0379	9717.95	14.83

Pollutant	Emission Factor (E)	Emissions (tpy) (unlimited)	Emissions (tpy) (limited/uncontrolled)	Emissions (limited) (lb/hr)
PM	5.30	60.27	25.73	5.87
PM10	1.35	15.36	6.56	1.50

The source waters the unpaved roads, resulting in an estimated 90% PM control efficiency. The following calculation determines the amount of emissions created by unpaved roads. The equation and values are from AP-42 Ch. 13.2.2 (Fifth Edition, 12/03).

Eq. 1a: $E = k * (s/12)^a * (W/3)^b$
where E = calc. site specific emission factor (lb/VMT)
k = 4.9 particle size multiplier (k=4.9 for PM-30 or TSP, k=1.5 for PM-10)
s = 4.8 mean % silt content of unpaved roads (provide by source)
a = 0.7 empirical constant (a= 0.7 for PM-30 or TSP, a=0.9 for PM-10)
b = 0.45 empirical constant (b= 0.45 for PM-30 or TSP and PM-10)
W = 14.83 mean vehicle weight (tons)

Methodology

PM Emissions (tpy) = PM Emission Factor (E) * Vehicle Miles Traveled /yr/2000
PM10 Emissions (tpy) = PM10 Emission Factor (E) * Vehicle Miles Traveled /yr/2000
Coke weighs 26 lbs/cu ft, and 4 cu yd bucket = 108 cu ft. Therefore, 26 lbs/cu ft * 108 cu ft per bucket = 1.40 tons per bucket
200 ft per trip / 5280 ft per mile = 0.0379 miles per trip

Limited PM (lb/ton of coke) from Transporting = 2.29 lb/hr ÷ 13.9 tons of coke/hr = 0.16 lb/ton of coke
Limited PM10 (lb/ton of coke) from Transporting = 0.58 lb/hr ÷ 13.9 tons of coke/hr = 0.04 lb/ton of coke

**Appendix A: Emissions Calculations
PM Emissions from Coke Handling**

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Modification Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: May 1, 2008

Fugitive Emissions from Storage Piles

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$E_f = 1.7 * (s/1.5) * (365-p)/235 * (f/15)$$

where s = 4.9 % silt content of material
p = 125 days of rain greater than or equal to 0.01 inches
f = 15 % of wind greater than or equal to 12 mph
= 5.67 lb/acre/day

Storage capacity (sc) of site (tons) = (# acres)*(43560 sqft/acre)*(25 ft high)*(1/40 ton/cuft)
Storage capacity (sc) of site (tons) = 108900

Ep (storage) = Ef * sc * 40 cuft/ton * 365 day/yr / (2000 lb/ton * 43560 sqft/acre * 25 ft)
where sc = 108,900 tons storage capacity

Ep = 4.14 tons/yr Note: PM = PM-10 Emissions

The following calculations determine the amount of emissions created by pile disturbance from truck loading, based on 8760 hours of use and AP-42, Ch 13.2.4 (Fifth edition, 1/95).

Truck Loading Operations Disturbance of Finished Coke Piles

$$E = k * 0.0032 * (U/5)^{1.3} / (M/2)^{1.4}$$

where k = 0.74 particle size multiplier (k=0.74 for PM, k=0.35 for PM-10)
U = 12 mile/hr mean wind speed
M = 15 % material moisture content

Emission Factor (E) PM = 4.401E-04
Emission Factor (E) PM-10 = 2.082E-04

Throughput (tpy) unlimited 843,150
Throughput (tpy) limited 360,000

PM Emissions Unlimited (tpy) = Throughput Unlimited (tpy) * Emissions Factor (E) PM = 0.19
PM-10 Emissions Unlimited (tpy) = Throughput Unlimited (tpy) * Emissions Factor (E) PM-10 = 0.09

PM Emissions Limited (tpy) = Throughput Limited (tpy) * Emissions Factor (E) PM = 0.08
PM-10 Emissions Limited (tpy) = Throughput Limited (tpy) * Emissions Factor (E) PM-10 = 0.04

Total Emissions from Storage Piles Unlimited	
PM	4.33
PM-10	4.23

Total Emissions from Storage Piles Limited	
PM	4.22
PM-10	4.18

**Appendix A: Emissions Calculations
Emissions from Coke Processing (Unlisted Conveyors)**

Company Name: Mid-Continent Coal and Coke Company
Significant Permit Modification Number: 089-25334-00173
Plant ID: 089-00173
Reviewer: John Haney
Date: April 28, 2008

Pollutant	Emissions (tpy) [Plant 2 Conveyors - Total (8)]	Emissions (tpy) [Plant 2 Conveyors - Unlisted (5/8)]	Exemption level
PM	4.68	2.93	<5
PM10	2.34	1.46	<5

Pollutant	Emissions (tpy) [Plant 2 Conveyors - Total (14)]	Emissions (tpy) [Plant 2 Conveyors - Unlisted (9/14)]	Exemption level
PM	4.68	3.01	<5
PM10	2.34	1.50	<5