



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: March 28, 2007
RE: Mid-Continent Coal and Coke / 089-24237-00173
FROM: Nisha Sizemore
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 approval 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, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar 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.

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.

Enclosures
FNPER-MOD.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
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March 28, 2007

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

Re: 089-24237-00173
Minor Source Modification to
Part 70 089-8064-00173

Dear Mr. Horst:

Mid-Continent Coal & Coke Company was issued Part 70 operating permit 089-8064-00173 on June 30, 2006 for a stationary raw material segregation of metallurgical coke and coal operation. An application requesting the addition of a stacking conveyor was received on January 19, 2007.

Pursuant to 326 IAC 2-7-10.5(d)(3), the following emission unit is approved for construction at the source:

- (d) One (1) 30" x 80' stacking conveyor with attached feed hopper for storage piling and truck, ship, barge, and railcar 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 following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

The source may begin construction and operation when the minor source modification has been

issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l) and 326 IAC 2-7-12(b).

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mr. Stephen Treimel, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Mr. Treimel. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027 and ask for Duane Van Laningham or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/ST

cc: File - Lake County
U.S. EPA, Region V
Gary Department of Environmental Affairs
Lake County Health Department
Northwest Regional Office
Air Compliance Section Inspectors - Rick Massoels, Ramesh Tejuja
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner
Billing, Licensing and Training - Dan Stamatkin



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PART 70 MINOR SOURCE MODIFICATION 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.

Minor Source Modification No.: 089-24237-00173	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: March 28, 2007

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 Rules; and Nonattainment for NSR 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, 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.
 - (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.
- (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.
- (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) 30" x 80' stacking conveyor with attached feed hopper for storage piling and truck, ship, barge, and railcar 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.
- (2) 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 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, 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.
- (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.
- (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.
- (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) 30" x 80' stacking conveyor with attached feed hopper for storage piling and truck, ship, barge, and railcar 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 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, 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.1.2 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.1.3 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.1.4 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 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. 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.1.5 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of the once per day visible notations.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

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

**Technical Support Document (TSD) for a
Part 70 Minor Source Modification and a
Part 70 Minor Permit Modification**

Source Description and Location

Source Name:	Mid-Continent Coal & Coke Company, an on-site contractor at US Steel - Gary Works
Source Location:	One North Broadway, Gary, IN 46402
County:	Lake County
SIC Code:	5052
Operation Permit No.:	T089-8064-00173
Operation Permit Issuance Date:	June 30, 2006
Minor Source Modification No.:	089-24237-00173
Minor Permit Modification No.:	089-24352-00173
Permit Reviewer:	ERG/ST

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. 089-8064-00173 on June 30, 2006.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM10	Maintenance Attainment
PM2.5	Nonattainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

Note: On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 re-designating Lake County to attainment for the sulfur dioxide standard and revoking the one-hour ozone standard in Indiana.

- (a) 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. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. 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.
- (b) 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 Emission Offset, 326 IAC 2-3.
- (c) Lake County has been classified as attainment or unclassifiable 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 (326 IAC 2-7-1(22)(B)(v)), it is considered to be in 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 25
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 in 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 NOx and PM10 are emitted at a rate of 100 tons per year or more. Lake County is designated as nonattainment for 8-hour ozone and PM2.5. Per EPA guidance,

emissions of PM10 are considered equivalent to emissions of PM2.5, as PM10 is considered a surrogate for PM2.5.

- (c) These emissions are based upon the Technical Source Document for the source's current Title V permit (089-8064-00173).

Actual Emissions

The following table shows the actual emissions from the source (Mid-Continent Coal & Coke Company 089-00173 and US Steel - Gary Works 089-00121). This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year) Mid-Continent Coal & Coke Company (089-00173)	Actual Emissions (tons/year) US Steel - Gary Works (089-00121)
PM	61.45	Greater than 100
PM-10	28.73	Greater than 100
SO ₂	0.0	Greater than 100
VOC	0.0	Greater than 100
CO	0.0	Greater than 100
NO _x	0.0	Greater than 100
HAP (Lead)	Not reported	1.0

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Mid-Continent Coal & Coke Company on January 19, 2007, relating to the addition of a stacking conveyor.

The source has requested to add the following emission unit. Please see Appendix A, pages 1 and 2 (calculations) for potential to emit calculations for these emission units. The addition of these units does not result in debottlenecking any other units. The PTE of other existing units does not increase as a result of the addition of this conveyor.

- (d) **One (1) 30" x 80' stacking conveyor with attached feed hopper for storage piling and truck, ship, barge, and railcar 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.**

Enforcement Issues

There are no pending enforcement actions.

Emission Calculations

See Appendix A of this document for detailed emission calculations (page 1 through 2).

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.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	2.62
PM10	1.47
SO ₂	0.81
VOC	0.99
CO	2.63
NO _x	12.2
HAPs	0.01

This source modification is subject to 326 IAC 2-7-10.5(d)(3) because this modification has the potential to emit PM greater than five (5) tons per year but less than twenty-five (25) tons per year and NOx greater than ten (10) tons per year but less than twenty-five (25) tons per year.

Additionally, the modification will be incorporated into the Part 70 Operating Permit through a minor permit modification issued pursuant to 326 IAC 2-7-12(b).

Permit Level Determination – PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Emission Unit ID	Limited Potential to Emit (tons/year)					
	PM*	PM10*	SO ₂	VOC	CO	NO _x
Conveyor (CS-01)	0.86	0.30	0	0	0	0
Generator (Gen1)	0.87	0.87	0.81	0.99	2.63	12.2
Total for Modification	1.73	1.17	0.81	0.99	2.63	12.2
Significant Level or Major Source Threshold	25	15	40	40	100	40

- (a) This modification to an existing major stationary source is not major for PSD or Emission Offset because the increase in emissions due to this modification is less than the PSD or Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-2 and 326 IAC 2-3, the PSD and Emission Offset requirements do not apply.
- (b) Lake County has been designated as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled “Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas” authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source’s PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A significant emissions increase would be a net emissions increase or the potential of fifteen (15) tons per year or greater of PM10. This modification is not major for Emissions Offset because the potential to emit of PM10 due to the modification is less than the Emission Offset significant level (15 tons per year). Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-3 does not apply for PM2.5.

Federal Rule Applicability Determination

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR 60) included in this permit for this modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR 61) and (326 IAC 20 and 40 CFR Part 63) included in this permit for this modification.

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)

PSD and Emission Offset applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of conveyor CS-01 and generator Gen1 will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Opacity Limitations)

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%) 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.

326 IAC 6.8-1-2 (Particulate Matter Limitations for Lake County)

This source is located in Lake County, but the conveyor is not specifically listed in 326 IAC 6.8-2 through 326 IAC 6.8-11. Pursuant to 326 IAC 6.8-1-2, the particulate emissions from the conveyor (CS-01) and the generator (Gen1) shall not exceed 0.03 grain per dry standard cubic foot.

326 IAC 6.8-10-1 (Lake County: Fugitive Particulate Matter)

The conveyor is located in Lake County and is located at a source listed in 326 IAC 6.8-10-1(a)(2). Pursuant to 326 IAC 6.8-10-3(3), (4), and (5), the particulate matter emissions from the conveyor (CS-01) shall meet the following requirements:

- (1) Material transfer limits shall be as follows:
 - (A) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%). The average instantaneous opacity shall consist of the average of three (3) opacity readings taken five (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) batch loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume.

- (B) 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 the initial hopper of a material processing facility as defined in section 2 of this rule or material transfer for transportation within or outside the source property including, but not limited to, the following:
- (i) Transfer of slag product for use by asphalt plants from a:
 - (AA) storage pile to a front end loader; and
 - (BB) front end loader to a truck.
 - (ii) Transfer of sinter blend for use at the sinter plant from a:
 - (AA) storage pile to a front end loader;
 - (BB) front end loader to a truck; and
 - (CC) truck to the initial processing point.
 - (iii) Transfer of coal for use at a coal processing line from a:
 - (AA) storage pile to a front end loader; and
 - (BB) 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 observations recorded at fifteen (15) second intervals for the duration of the operation.

- (C) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits:
- (i) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a six (6) minute average.
 - (ii) 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 subdivision (9).
- (2) 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. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9*. The opacity readings shall be taken at least four (4) feet from the point of origin.
- (3) Wind erosion from storage piles and exposed areas. 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 are 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 the opacity limitation was not reasonable given prevailing wind conditions. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9*, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. The opacity of fugitive particulate emissions from exposed areas shall not exceed ten percent (10%) on a six (6) minute average. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9*.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan submitted on December 13, 1996.

326 IAC 6.8-11-1 (Lake County: Particulate Matter Contingency Measures)

The conveyor is subject to the requirements of 326 IAC 6.8-11-1 because the source has a potential to emit PM10 greater than ten (10) tons per year and is located in Lake County.

326 IAC 6-4 (Fugitive Dust Emissions)

The conveyor is a source of fugitive dust. Pursuant to 326 IAC 6-4, the Permittee shall not generate fugitive dust to the extent that some portion of the material escapes 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.

326 IAC 6-5 (Fugitive Particulate Matter Limitations)

The source is not subject to the requirements of 326 IAC 6-5 because it is not located in an area listed in 326 IAC 6-5-1(a), and does not contain any facilities with the potential to emit fugitive PM greater than 25 tons per year which received a preconstruction approval after December 13, 1985.

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.

There are no compliance monitoring requirements applicable to this modification (emission unit CS-01).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T089-8064-00173, issued on June 30, 2006. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

1. The following changes to Section A.1 - General Information have been made to reflect the changes in attainment status for Lake County since the Title V permit was issued. Also, IDEM has removed the responsible official information.

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.

Responsible Official:	President
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 for SO₂- Nonattainment 1-hour ozone 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 Rules; and
Nonattainment for NSR
Major for Section 112 of the Clean Air Act
1 of 28 Source Categories

2. Section A.3 has been updated to include the new emission units as follows:

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:

...

(d) **One (1) 30" x 80' stacking conveyor with attached feed hopper for storage piling and truck, ship, barge, and railcar 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.**

3. Section D.1 has been changed to add the new emission units and their applicable requirements.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

...

(d) **One (1) 30" x 80' stacking conveyor with attached feed hopper for storage piling and truck, ship, barge, and railcar 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.**

D.1.1 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 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:

...

(b) Pursuant to 326 IAC 6.8-10-3 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.

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 089-24237-00173 and Minor Permit Modification 089-24352-00173. The staff recommends to the Commissioner that this Part 70 Minor Source Modification and Minor Permit Modification be approved.

**Appendix A: Emission Calculations
One (1) 90 Hp Generator - Diesel Fuel**

Company Name: Mid-Continent Coal & Coke Company
 Address: 1 North Broadway, Gary, Indiana 46402
 MSM to TV: 089-24237-00173
 Reviewer: ERG/ST
 Date: March 23, 2007

Emission Unit ID	Maximum Heat Input Capacity Horsepower (hp)	Maximum Potential Throughput (hp-hr/yr)
Gen1	90	788,400

Emission Unit ID	Pollutant Emission Factor (lb/hp-hr)						Total HAPs
	PM*	PM10*	SO ₂	NOx	VOC*	CO	
Gen1	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067	2.65E-05

Emission Unit ID	Potential to Emit (ton/yr)						Total HAPs
	PM*	PM10*	SO ₂	NOx	VOC	CO	
Gen1	0.87	0.87	0.81	12.2	0.99	2.63	0.01

Emission factors are from AP 42 Table 3.3-1 (SCC 2-02-001-02, 2-03-001-01) [10/96]

* Assume PM = PM10. Assume VOC = TOC.

Methodology

Maximum Potential Throughput (hp-hr/yr) = Heat Input Capacity (hp) x 8760 hr/yr

Potential to Emit (ton/yr) = Maximum Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr) x 1 ton/2,000 lb

**Appendix A: Emission Calculations
Particulate Emissions from Conveyor CS-01**

Company Name: Mid-Continent Coal & Coke Company
 Address: 1 North Broadway, Gary, Indiana 46402
 MSM to TV: 089-24237-00173
 Reviewer: ERG/ST
 Date: March 23, 2007

Materials Conveying

Emission Unit ID	Maximum Throughput (ton/hr)	Pollutant	Emission Factor Uncontrolled (lb/ton)	Emission Factor Controlled (lb/ton)	PTE of PM/PM10 Uncontrolled (ton/yr)	PTE of PM/PM10 Controlled (ton/yr)
CS-01	200	PM	2.0E-03	9.8E-04	1.75	0.86
		PM10	6.9E-04	3.4E-04	0.60	0.30

Emission factors for materials conveying are from AP-42, Chapter 13.2.4 - Handling and Storage Piles, Table 13-2-4.1 and Section 13.2.4.3 (11/06). Emissions are controlled by moisture. Assume 50% control for water spray.

Methodology

$PTE \text{ (ton/yr)} = \text{Maximum Throughput (ton/hr)} \times 8760 \text{ hr/yr} \times \text{Emission Factor (lb/ton)} \times 1 \text{ ton}/2,000\text{lb}$