



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: July 7, 2006
RE: Mittal-Chief Excavation Inc. / 089-22975-05267
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 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, Room 1049, 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.



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

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Mr. Bobby Randolph
Chief Excavation Inc.
11829 Burr Street
Crown Point, IN 46307

July 7, 2006

Re: 089-22975-05267
Minor Source Modification

Dear Mr. Randolph:

Chief Excavation Inc., an on-site contractor of Mittal Steel USA Inc., submitted an application to modify the Mittal Steel USA Inc. source on March 3, 2006. Mittal Steel USA Inc. applied for a Part 70 operating permit on September 16, 1996; however, the Part 70 Permit for this source has not yet been issued. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) One (1) screening unit, to be constructed in 2006, with a maximum capacity of three hundred (300) tons of iron ore pellets per hour, consisting of the following:
 - (1) One (1) feed hopper and conveyor.
 - (2) One (1) double deck vibrating screen for primary and fines screening.
 - (3) Three (3) stackers.
 - (4) One (1) internal combustion diesel generator rated at 98 horsepower.
- (b) Stockpiles.
- (c) Paved and unpaved roadways.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC C 2-7-10.5(l)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are changes to the proposed construction the source cannot operate until an Operation Permit Validation Letter is issued.

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 call (800) 451-6027, and ask for Jenny Acker or extension 2-8253, or dial (317) 232-8253.

Sincerely,

Original signed by
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments

JLA

cc: File – Lake County
Lake County Health Department
Northwest Regional Office
Air Compliance Section Inspector – Michael Hall



Mitchell E. Daniels, Jr.
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PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

Chief Excavation Inc.
an on-site Contractor of Mittal Steel USA Inc.
3210 Watling Street
East Chicago, Indiana 46312

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

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.: 089-22975-05267	
Issued by: Original signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: July 7, 2006

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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 are 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 iron ore pellets crushing and primary and fines screening operation.

Responsible Official:	Vice President
Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Mailing Address:	11829 Burr Street, Crown Point, Indiana 46307
General Source Phone Number:	219-406-9012
SIC Code:	5052
County Location	Lake
Source Location Status:	Nonattainment for Ozone under the 1-hour and 8-hour standards, PM2.5, and SO2 Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Emission Offset Rules, Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

Mittal Steel USA Inc. is an integrated steel mill that consists of a main mill and on-site contractors:

- (a) Mittal Steel USA Inc. (plant ID 089-00316), the primary operation, is located at 3210 Watling Street, East Chicago, IN 46312, and
- (b) Chief Excavation Inc. (plant ID 089-05267), an on-site contractor, is located at 3210 Watling Street, East Chicago, IN 46312.

Separate Part 70 permits will be issued to Mittal Steel USA Inc. and Chief Excavation Inc., solely for administrative purposes. Mittal Steel USA Inc., will be issued Part 70 Operating Permit No. 089-6577-00316, which is currently in draft. Until issuance of Part 70 Operating Permit No. 089-6577-00316, Chief Excavation Inc. will be issued a Minor Source Modification (089-22975-05267), which will authorize construction and operation.

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

Chief Excavation Inc. consists of the following emission units:

- (a) One (1) screening unit, to be constructed in 2006, with a maximum capacity of three hundred (300) tons of iron ore pellets per hour, consisting of the following:
 - (1) One (1) feed hopper and conveyor.
 - (2) One (1) double deck vibrating screen for primary and fines screening.
 - (3) Three (3) stackers.
 - (4) One (1) internal combustion diesel generator rated at 98 horsepower.

- (b) Stockpiles.
- (c) Paved and unpaved roadways.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

The 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 Effective Date of Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5) (Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.4 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 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 the "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. One (1) certification may cover multiple forms in one (1) submittal.
- (c) The "responsible official" is defined at 326 IAC 2-7-1(34).

C.2 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
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 PMPs do 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 Part 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.

C.3 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
Indianapolis, Indiana 46204-2251

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.

C.4 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, 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 13-14-2-2, 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 13-14-2-2, 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 13-14-2-2, 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 13-14-2-2, 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.

C.5 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12][40 CFR 72]

- (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
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)]

C.6 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.7 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.8 Fugitive Dust Emissions [326 IAC 6.8-10] [326 IAC 6.8-11]

- (a) Pursuant to 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1) (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%).
 - (4) 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.
 - (5) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
 - (6) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.

- (7) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (8) 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.
- (9) 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.
- (10) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (11) Any facility or operation not specified in 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)) shall meet a twenty percent (20%), three (3) minute average opacity standard.
- (12) PM10 emissions from each material processing stack shall not exceed 0.022 grains per dry standard cubic foot and ten percent (10%) opacity
- (13) Fugitive particulate matter from the material processing facilities shall not exceed ten percent (10%) opacity
- (14) 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 six (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 (formerly 326 IAC 6-1-11.1(d)(9)).

Material processing facilities include crushers, screens, grinders, mixers, dryers, belt conveyors, bucket elevators, bagging operations, storage bins, and truck or railroad car loading stations.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan attached to this permit as Appendix A.

- (b) The Permittee is subject to 326 IAC 6.8-11-4, 326 IAC 6.8-11-5 and 326 IAC 6.8-11-6 (formerly 326 IAC 6-1-11.2(h), (i), (k), (l), (m), (o), (p) and (q) (Lake County Particulate Matter Contingency Measures) because it is subject to the requirements of 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1).

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

C.9 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, using 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
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.10 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.11 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
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.12 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.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).

C.15 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 the 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

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

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

C.16 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.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

- (b) 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.17 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 that a “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, other than projects at a Clean Unit, 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 construction of the “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) 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)(3) and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
 - (2) 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
 - (3) 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.18 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,
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 (c) 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 (c)(2) and (3) 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
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.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: The ore screening plant consists of the following:

- (a) One (1) screening unit, to be constructed in 2006, with a maximum capacity of three hundred (300) tons of iron ore pellets per hour, consisting of the following:
 - (1) One (1) feed hopper and conveyor.
 - (2) One (1) double deck vibrating screen for primary and fines screening.
 - (3) Three (3) stackers.
 - (4) One (1) internal combustion diesel generator rated at 98 horsepower.
- (b) Stockpiles.
- (c) Paved and unpaved roadways.

(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 Emission Offset Minor Limits [326 IAC 2-2] [326 IAC 2-3]

The input of iron ore pellets to the crushing, screening and conveying plant shall not exceed 228,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will ensure that particulate matter emissions from the entire plant are less than 25 tons per year and that emissions of particulate matter less than 10 micron size diameter are less than 15 tons per year, including fugitives. Compliance with this limit renders the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 6.8-1-2(g)]

Pursuant to 326 IAC 6.8-1-2(g), the screening operations which are not totally enclosed are subject to 326 IAC 6.8-1-2(g) (formerly 326 IAC 6-1-2(g)) that requires compliance with 326 IAC 2, 326 IAC 5-1 and 326 IAC 6-4.

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 aggregate handling and screening equipment.

Compliance Determination Requirements

D.1.4 PM and PM10 Control

The Permittee shall use wet suppression to control emissions of PM and PM10 from the vibrating screen, conveyors, stock piles, and roads. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with Condition D.1.1, and to ensure that the iron ore processed has a moisture content greater than 10 percent. If weather conditions preclude the use of wet suppression, the Permittee shall perform moisture content analysis on the iron ore to ensure it has a moisture content equal to or greater than ten (10) percent. The method for the moisture content analysis shall be approved by IDEM, OAQ.

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 material handling, and primary and fines screening operations 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 Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the process emission points once per day.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records of moisture content analysis, as needed.
- (c) In order to demonstrate compliance with Condition D.1.1, the Permittee shall maintain records of iron ore pellets processed at the stationary crushing, screening, and conveying plant.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

These reports shall be submitted within thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit.

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

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
Source Address: 3210 Watling Street, East Chicago, IN 46312
Mailing Address: 11829 Burr Street, Crown Point, Indiana 46307
MSM No.: 089-22975-05267

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
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
Source Address: 3210 Watling Street, East Chicago, IN 46312
Mailing Address: 11829 Burr Street, Crown Point, Indiana 46307
MSM No.: 089-22975-05267

This form consists of 2 pages

Page 1 of 2

This is an emergency as defined in 326 IAC 2-7-1(12)

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

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.

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 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
Source Address: 3210 Watling Street, East Chicago, IN 46312
Mailing Address: 11829 Burr Street, Crown Point, Indiana 46307

Months: _____ to _____ Year: _____

Page 1 of 2

<p>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".</p>	
<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.

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

Part 70 Quarterly Report

Source Name: Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
Source Address: 3210 Watling Street, East Chicago, IN 46312
Mailing Address: 11829 Burr Street, Crown Point, Indiana 46307
MSM No. 089-22975-05267
Facility: Screening operations
Parameter: Iron ore pellets crushing, screening, and conveying plant
Limit: Two hundred twenty-eight thousand (228,000) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Tons of Iron Ore Processed	Tons of Iron Ore Processed	Tons of Iron Ore Processed
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this month.

Deviation/s occurred in this month.

Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Mail to: Permit Administration & Development Section
Office Of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

Chief Excavation Inc., an on-site Contractor of Mittal Steel USA Inc.
11829 Burr Street
Crown Point, Indiana 46307

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)
4. I hereby certify that Chief Excavation Inc., 3210 Watling Street, East Chicago, IN 46312, completed construction of the stationary iron ore pellets crushing and primary and fines screening plant on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on _____ and as permitted pursuant to Minor Source Modification No. 089-22975-05267 issued on _____.
5. Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the minor source modification permit. (Delete/Strikethrough if this statement if it does not apply.)

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

-

Date

STATE OF INDIANA)
_____)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 20_____.

My Commission expires: _____ .

Signature

-

Name (typed or printed)

-

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source Modification.

Source Description and Location	
--	--

Source Name:	Chief Excavation Inc., an on-site contractor of Mittal Steel USA Inc.
Source Location:	3210 Watling Street, East Chicago, Indiana 46312
County:	Lake
SIC Code:	5052
Minor Source Modification No.:	089-22975-05267
Permit Reviewer:	Jenny Acker

Source Definition

Mittal Steel USA Inc. is an integrated steel mill that consists of a main mill and on-site contractors:

- (a) Mittal Steel USA Inc. (plant ID 089-00316), the primary operation, is located at 3210 Watling Street, East Chicago, IN 46312, and
- (b) Chief Excavation Inc. (plant ID 089-05267), a proposed new stationary on-site contractor, is located at 3210 Watling Street, East Chicago, IN 46312.

In order to determine whether these two sources should be included in the same Part 70 source, IDEM must determine if they meet the definition of a major source. The term "major source" is defined at 326 IAC 2-7-1(22). In order for these two plants to be considered one major source, they must meet all three of the following criteria:

- (1) the plants must be under common control;
- (2) the plants must have the same Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
- (3) the plants must be located on contiguous or adjacent properties.

In 1996, IDEM adopted nonrule policy document Air-006-NPD, titled "Title V Permitting Issues: On-Site Contractors" regarding the definition of major source. Air-006-NPD is available at <http://www.in.gov/idem/rules/policies/#airpend> on IDEM's website. This guidance document states that if an on-site contractor provides a majority of its goods or services to a primary source, the contractor should be included as part of the primary source for Title V (Part 70) permitting purposes. Chief Excavation Inc. provides a majority, and usually all, of its services directly to Mittal Steel USA Inc. Therefore, IDEM has determined that Mittal Steel USA Inc. and Chief Excavation Inc. are part of the same major source. Therefore, the term "source" in the Part 70 permit documents includes Mittal Steel USA Inc. and Chief Excavation Inc.

Separate Part 70 permits will be issued to Mittal Steel USA Inc. and Chief Excavation Inc., solely for administrative purposes. Mittal Steel USA Inc. will be issued Part 70 Operating Permit No. 089-6577-00316, which is currently in draft. Until issuance of Part 70 Operating Permit No. 089-6577-00316, Chief Excavation Inc. will be issued a Minor Source Modification (089-22975-05267), which will authorize construction and operation.

Existing Approvals

Chief Excavation Inc. is a proposed new contractor for Mittal Steel USA Inc. with no current operations at 3210 Watling Street, East Chicago, IN 46312. Therefore, no previous approvals have been issued to Chief Excavation Inc.

Chief Excavation Inc. submitted an application for a Part 70 Operating Permit (089-23267-05267) on June 26, 2006. At this time, this application is still under review.

County Attainment Status

The source is located in Lake County.

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

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.
- (1) 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 NO_x threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standard. Lake County has been designated as severe nonattainment in Indiana for the 1-hour ozone standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (2) VOC and NO_x 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 NO_x 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 PM_{2.5}. 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 PM_{2.5} emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.

- (c) Lake County has been classified as attainment or unclassifiable for PM10, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Lake County has been classified as nonattainment for SO₂. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (e) Since the primary source is classified as a steel mill plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (f) 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 primary 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 primary source is a major stationary source under Emission Offset (326 IAC 2-3) because NO_x and VOC, regulated nonattainment pollutants, are emitted at a rate of 100 tons and 25 tons per year or more, respectively.
- (c) These emissions are based upon Minor Source Modification (089-16966-00316) issued to Ispat Inland Inc. (which has been renamed as Mittal Steel USA Inc.).

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

HAPs	Potential To Emit (tons/year)
Any Single HAP	Greater than 10
Combined HAPs	Greater than 25

This existing primary source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

No previous emission data has been received from Chief Excavation Inc. (Plt ID 089-05267).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Chief Excavation Inc. on March 14, 2006, relating to the addition of an iron ore pellet material handling, crushing, and primary and fines screening operation. The following is a list of the proposed emission units:

- (a) One (1) screening unit, to be constructed in 2006, with a maximum capacity of three hundred (300) tons of iron ore pellets per hour, consisting of the following:
 - (1) One (1) feed hopper and conveyor.
 - (2) One (1) double deck vibrating screen, for primary and fines screening.
 - (3) Three (3) stackers.
 - (4) One (1) internal combustion diesel generator rated at 98 horsepower.
- (b) Stockpiles.
- (c) Paved and unpaved roadways.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this 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.”

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)	Limited Potential to Emit (tons/year)
PM	542.8	Less than 25
PM10	140.38	Less than 15
SO ₂	0.88	Not limited
VOC	1.06	Not limited
CO	2.87	Not limited
NO _x	13.31	Not limited

This source modification is subject to 326 IAC 2-7-10.5(d)(4)(E) for modifications for which the potential to emit is limited to less than twenty-five tons per year of any regulated pollutant other than hazardous air pollutants by complying with the following constraint: limiting raw material throughput.

Permit Level Determination – PSD or Emission Offset
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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.

Process/Emission Unit	Potential to Emit (tons/year)					
	PM	PM10	SO ₂	VOC	CO	NO _x
Screening and Fugitive Emissions	24.03	6.34	--	--	--	--
Combustion Engines	0.94	0.94	0.88	1.06	2.87	13.31
Total for Modification	24.97	7.28	0.88	1.06	2.87	13.31
Significant Level	25	15	40	25	100	40

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. 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 the emissions increase is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

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. Chief Excavation Inc. has limited the potential to emit of PM10 from the modification to less than fifteen (15) tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-3 does not apply for PM2.5.

Since this source is considered a major PSD source and Emission Offset source and the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of PM per year and fifteen (15) tons of PM₁₀ per year, this source has elected to limit the potential to emit of this modification as follows:

- (a) The input of iron ore pellets to the crushing, screening and conveying plant shall not exceed 228,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will ensure that particulate matter emissions from the entire screening plant are less than 25 tons per year and that emissions of particulate matter less than ten (10) micron size diameter are less than 15 tons per year, including fugitives. Compliance with this limit renders the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

Federal Rule Applicability Determination

The following federal rules are applicable to the screening plant:

- (a) This screening plant is not subject to the requirements of the New Source Performance Standards for Non-Metallic Mineral Processing Plants, 40 CFR 60.670 through 60.676, Subpart OOO, since the operations do not include crushing.
- (b) The internal combustion engine is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63.6580 through 63.6675, Subpart ZZZZ, since it is rated at less than 500 brake horsepower.
- (c) 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 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.

The source has elected to limit the fines screening unit, which has a potential to emit PM and PM₁₀ above major source thresholds, to below major source thresholds; however, a control device will not be used to comply with the emission limitation.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of 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 screening plant 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 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). The source also has potential to emit greater than or equal to 250 tons per year of particulate matter less than or equal to ten (10) micrometers (PM10); therefore, an emission statement covering the previous calendar year must be submitted by July 1 annually. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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 Exemptions), opacity shall meet the following, unless otherwise stated in the 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.

326 IAC 6-3 Particulate Matter Limitations for Manufacturing Operations

The source is not subject to the requirements of 326 IAC 6-3, because the plant is subject to the requirements of 326 IAC 6.8-1 (formerly 326 IAC 6-1) (Nonattainment Particulate Emissions Limitations). Pursuant to the applicability requirements 326 IAC 6-3-1(b), if any limitation established by this rule is inconsistent with applicable limitations contained in 326 IAC 6.8-1 (formerly 326 IAC 6-1) (Nonattainment Particulate Emissions Limitations) or 326 IAC 12 (New Source Performance Standards), then the limitations contained in 326 IAC 6.8-1 or 326 IAC 12 prevail.

326 IAC 6-4 Fugitive Dust Emissions

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.

326 IAC 6.8-1-2(g) Particulate Emissions Limitations

Pursuant to 326 IAC 6.8-1-2(g), the screening operations which are not totally enclosed are subject to 326 IAC 6.8-1-2(g) (formerly 326 IAC 6-1-2(g)) that requires compliance with 326 IAC 2, 326 IAC 5-1 and 326 IAC 6-4.

326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), and 326 IAC 6.8-11 (Lake County Particulate Matter Contingency Measures)

The source is subject to the limits in 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1), because particulate matter emissions from source wide activities are above five (5) tons per year.

- (a) Pursuant to 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1) (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%).
- (4) 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.
- (5) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (6) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (7) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (8) 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.
- (9) 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.
- (10) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (11) Any facility or operation not specified in 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1(d)) shall meet a twenty percent (20%), three (3) minute average opacity standard.
- (12) PM10 emissions from each material processing stack shall not exceed 0.022 grains per dry standard cubic foot and ten percent (10%) opacity
- (13) Fugitive particulate matter from the material processing facilities shall not exceed ten percent (10%) opacity
- (14) 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 six (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 (formerly 326 IAC 6-1-11.1(d)(9)).

Material processing facilities include crushers, screens, grinders, mixers, dryers, belt conveyors, bucket elevators, bagging operations, storage bins, and truck or railroad car loading stations.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan attached to this permit as Appendix A.

- (b) The Permittee is subject to 326 IAC 6.8-11-4, 326 IAC 6.8-11-5 and 326 IAC 6.8-11-6 (formerly 326 IAC 6-1-11.2(h), (i), (k), (l), (m), (o), (p) and (q) (Lake County Particulate Matter Contingency Measures) because it is subject to the requirements of 326 IAC 6.8-10 (formerly 326 IAC 6-1-11.1).

326 IAC 7-1.1 Sulfur Dioxide (SO₂) Emission Limitations

The source is not subject to the requirements of 326 IAC 7-1.1 Sulfur Dioxide (SO₂) Emission Limitations, because the equipment does not have the potential to emit twenty five (25) tons per year or more of SO₂.

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) The Permittee shall use wet suppression to control emissions of PM and PM₁₀ from the vibrating screen, conveyors, stock piles, and roads. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with 326 IAC 2-2 and 326 IAC 2-3, and to ensure that the iron ore processed has a moisture content greater than 10 percent. If weather conditions preclude the use of wet suppression, the Permittee shall perform moisture content analysis on the iron ore to ensure it has a moisture content equal to or greater than ten (10) percent. The method for the moisture content analysis shall be approved by IDEM, OAQ.

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

- (a) Visible emission notations of the material handling, and primary and fines screening operations 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.

These monitoring conditions are necessary because the material handling, and primary and fines screening operations must operate properly to ensure compliance with 326 IAC 6.8-10 (Lake County Fugitive Particulate Matter Control Requirements), 326 IAC 6.8-11 (Lake County Fugitive Particulate Matter Contingency Measures), 326 IAC 5-1, 326 IAC 6-4 and 326 IAC 2-7 (Part 70).

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. 089-22975-05267. The staff recommend to the Commissioner that this Part 70 Minor Source Modification be approved.

**Appendix A: Emissions Calculations
PM/PM-10 Emissions from Coke Processing**

Company Name: Chief Excavation Inc.
Minor Source Modification Number: 089-22975-05267
Reviewer: Jenny Acker
Date: 4/5/2006

<u>** PM emissions before controls and limitations**</u>							
Transporting							97.25 tons/yr
Storage Piles							2.06 tons/yr
¹⁾ Loading & Unloading ore	2,628,000	ton/yr x	0.0088	lb PM/ton	*1/2000	ton/lb	11.56 tons/yr
²⁾ Screening - Primary	2,628,000	ton/yr x	0.025	lb PM/ton	*1/2000	ton/lb	32.85 tons/yr
²⁾ Screening - Fines	2,628,000	ton/yr x	0.3	lb PM/ton	*1/2000	ton/lb	394.20 tons/yr
³⁾ Conveyor Transfer	2,628,000	ton/yr x	0.003	lb PM/ton	*1/2000	ton/lb	3.94 tons/yr
<i>Total Screening Emission Before Controls and Limitations:</i>							541.86 tons/yr
Combustion Engines							** see page 4 ** 0.94 tons/yr
Total Emission Before Controls and Limitations:							542.80

<u>** PM-10 emissions before controls and limitations**</u>							
Transporting							24.78 tons/yr
Storage Piles							1.52 tons/yr
¹⁾ Loading & Unloading Ore	2,628,000	ton/yr x	0.0043	lb PM10/ton	*1/2000	ton/lb	5.65 tons/yr
²⁾ Screening - Primary	2,628,000	ton/yr x	0.0087	lb PM10/ton	*1/2000	ton/lb	11.43 tons/yr
²⁾ Screening - Fines	2,628,000	ton/yr x	0.072	lb PM10/ton	*1/2000	ton/lb	94.61 tons/yr
³⁾ Conveyor Transfer	2,628,000	ton/yr x	0.0011	lb PM10/ton	*1/2000	ton/lb	1.45 tons/yr
<i>Total Screening Emission Before Controls and Limitations:</i>							139.44 tons/yr
Combustion Engines							** see page 4 ** 0.94 tons/yr
Total Emission Before Controls and Limitations:							140.38

<u>** PM emissions after controls and limitations**</u>							
Transporting				50% emitted after controls			4.22 tons/yr
Storage Piles				10% emitted after controls			0.11 tons/yr
¹⁾ Loading & Unloading Ore	228,000	ton/yr x		100% emitted after controls			1.00 tons/yr
²⁾ Screening - Primary	228,000	ton/yr x		50% emitted after controls			1.43 tons/yr
²⁾ Screening - Fines	228,000	ton/yr x		50% emitted after controls			17.10 tons/yr
³⁾ Conveyor Transfer	228,000	ton/yr x		50% emitted after controls			0.17 tons/yr
<i>Total Screening Emission After Controls and Limitations:</i>							24.03 tons/yr
Combustion Engines							** see page 4 ** 0.94 tons/yr
Total PM Emission After Controls and Limitations:							24.97

<u>** PM-10 emissions after controls and limitations**</u>							
Transporting				50% emitted after controls			1.08 tons/yr
Storage				10% emitted after controls			0.11 tons/yr
¹⁾ Loading & Unloading Ore	228,000	ton/yr x		100% emitted after controls			0.49 tons/yr
²⁾ Screening - Primary	228,000	ton/yr x		50% emitted after controls			0.50 tons/yr
²⁾ Screening - Fines	228,000	ton/yr x		50% emitted after controls			4.10 tons/yr
³⁾ Conveyor Transfer	228,000	ton/yr x		50% emitted after controls			0.06 tons/yr
<i>Total Screening Emission After Controls and Limitations:</i>							6.34 tons/yr
Combustion Engines							** see page 4 ** 0.94 tons/yr
Total PM10 Emission After Controls and Limitations:							7.28

PM Fugitive Emissions (lb/ton of ore throughput): 0.21
PM10 Fugitive Emissions (lb/ton of ore throughput): 0.05

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 (08-04). 2 screening units are included in the calculation to account for the double deck design.
- ³⁾ Uncontrolled emission factor for conveying from AP-42, Chapter 11.19.2 (Crushed Stone Processing Operations), Table 11.19.2-2 (08-04)

**Appendix A: Emissions Calculations
PM Emissions Calculations
Unpaved Roads**

Company Name: Chief Excavation Inc.
Minor Source Modification Number: 089-22975-05267
Reviewer: Jenny Acker
Date: 4/5/2006

* * unpaved roads * *

Estimated Maximum Production - Unlimited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Vehicle Weight (tons)
2,628,000	8	328,500	0.1	32850.00	15.00

Estimated Maximum Production - Limited (tons/yr)	Product Weight (tons/round trip)	Round Trips/Yr	Miles per Round Trip	Vehicle Miles Traveled (VMT)/yr	Vehicle Weight (tons)
228,000	8	28,500	0.1	2850.00	15.00

Pollutant	Emission Factor (E)	Emissions (uncontrolled)	Emissions (controlled) (tpy)
PM	5.92	97.25	8.44
PM10	1.51	24.78	2.15

The following calculation determines the amount of emissions created by unpaved roads, Equation and values from AP-42 Chp. 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 = 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 = empirical constant (a= 0.7 for PM-30 or TSP, a=0.9 for PM-10)
 b = empirical constant (b= 0.45 for PM-30 or TSP and PM-10)
 W = 19 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

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

Company Name: Chief Excavation Inc.
Minor Source Modification Number: 089-22975-05267
Reviewer: Jenny Acker
Date: 4/5/2006

Fugitive Emissions from Storage Piles

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

$$E_f = 1.7 \cdot (s/1.5)^{0.365} / 235 \cdot f / 15$$

= 5.67 lb/acre/day

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

Storage capacity (sc) of site (tons) = (# acres) * (43560 sqft/acre) * (25 ft high) * (1/40 ton/cuft)
 Storage capacity (sc) of site (tons) = 27281.25
 where site area (acres) = 1

$$E_p(\text{storage}) = E_f \cdot sc \cdot (40 \text{ cuft/ton}) / (2000 \text{ lb/ton}) / (43560 \text{ sqft/acre}) / (25 \text{ ft}) \cdot (365 \text{ day/yr})$$

= 1.04 tons/yr

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

$$E = k \cdot (0.0032)^{0.365} \cdot (U/5)^{1.3} / ((M/2)^{1.4})$$

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

Emission Factor (E) PM = 7.764E-04
 Emission Factor (E) PM-10 = 3.672E-04

PM Emissions (tpy) = Throughput (tpy) * Emissions Factor (E) PM
 PM-10 Emissions (tpy) = Throughput (tpy) * Emissions Factor (E) PM-10
 Unlimited Throughput 2628000
 Throughput Limit 228,000

PM Emissions-No Limit (tpy) = 1.02
 PM-10 Emissions-No Limit (tpy) = 0.48

PM Emissions-Limited (tpy) = 0.09
 PM-10 Emissions-Limited (tpy) = 0.04

Total Emissions from Storage Piles With no Limit	
PM	2.06
PM-10	1.52

Total Emissions from Storage Piles With Limited Throughput	
PM	1.13
PM-10	1.08

**Appendix A: Emissions Calculations
Internal Combustion Engines - Diesel Fuel
<250 Hp Reciprocating**

Company Name: Chief Excavation Inc.
Minor Source Modification Number: 089-22975-05267
Reviewer: Jenny Acker
Date: 4/5/2006

	Output (hp)	8760 hp-hr/yr
Diesel Engine	98.0	858480

	Pollutant					
Emission Factor in lb/hp-hr	PM*	PM10*	SO2	NOx	VOC	CO
	2.20E-03	2.20E-03	2.05E-03	3.10E-02	2.47E-03	6.68E-03
Potential Emission in tons/yr Diesel Engine	0.94	0.94	0.88	13.31	1.06	2.87

Methodology

hp-hr/yr = hp * 8760 hr/yr

Emission Factors are from AP 42, Chapter 3.3, Table 3.3-1, SCC #2-02-001-02 and 2-03-001-01

Emission (tons/yr) = (hp-hr/yr) x Emission Factor (lb/hp-hr)/2,000 lb/ton