



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

---

*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
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## **SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED**

**TO:** Mr. Robert Maciel  
IGS Burns Harbor, LLC  
260 W US Highway 12  
Burns Harbor, IN 46304

**DATE:** March 27, 2007

**FROM:** Nisha Sizemore, Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
Title V - Minor Source Modification  
127-24351-0001

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Mr. Ralph Mora of Integrated Environmental Solutions  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 03/23/05



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## **PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY**

**ISG Burns Harbor LLC  
250 West, U.S. Highway 12  
Burns Harbor, Indiana 46304**

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

This approval 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.

Source Modification: MSM 127-24351-00001	
Issued by: <i>Original document signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: March 27, 2007

## TABLE OF CONTENTS

<b>A</b>	<b>SOURCE SUMMARY .....</b>	<b>4</b>
A.1	General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]	
A.2	Part 70 Source Definition [326 IAC 2-7-1(22)]	
A.3	Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]	
A.4	Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]	
A.5	Part 70 Permit Applicability [326 IAC 2-7-2]	
<b>B</b>	<b>GENERAL CONDITIONS .....</b>	<b>7</b>
B.1	Definitions [326 IAC 2-7-1]	
B.2	Effective Date of the Permit [IC13-15-5-3]	
B.3	Revocation of Permits [326 IAC 2-1.1-9(5)]	
B.4	Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]	
B.5	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]	
B.6	Emergency Provisions [326 IAC 2-7-16]	
B.7	Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]	
B.8	Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]	
<b>C</b>	<b>SOURCE OPERATION CONDITIONS.....</b>	<b>10</b>
	<b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>	
C.1	Opacity [326 IAC 5-1]	
C.2	Fugitive Dust Emissions [326 IAC 6-4]	
	<b>Compliance Requirements [326 IAC 2-1.1-11]</b>	
C.3	Compliance Requirements [326 IAC 2-1.1-11]	
C.4	Source Specific and Facility Emission Limitations for TSP in Porter County [326 IAC 6-6]	
	<b>Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]</b>	
C.5	Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]	
C.6	Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]	
	<b>Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]</b>	
C.7	Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]	
C.8	Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]	
	<b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>	
C.9	General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]	
C.10	General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]	
<b>D.1</b>	<b>FACILITY OPERATION CONDITIONS.....</b>	<b>15</b>
	<b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>	
D.1.1	PSD Minor Limit [326 IAC 2-2] [326 IAC 2-7-10.5(d)]	
D.1.2	Fugitive Dust Emission Limitations [326 IAC 6-4-2]	
D.1.3	Preventive Maintenance Plan [326 IAC 2-7-5(13)]	
	<b>Compliance Determination Requirements</b>	
D.1.4	Visible Emissions Notations	
	<b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>	

- D.1.5 Record Keeping Requirements
- D.1.6 Reporting Requirements

Certification .....	18
Quarterly Report.....	19
Emergency Occurrence Report.....	20-21
Quarterly Deviation and Compliance Monitoring Report .....	22-23

## SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.5 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 approval 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)]

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The Permittee owns and operates a stationary steel works operation consisting of a sintering plant, coke ovens, blast furnaces, steelmaking (BOF) and continuous casting, rolling mills, coating and pickling operations, and associated processes for the production of coke, chemical recovery coke oven products, iron, hot rolled steel, steel coils, steel strip, cold rolled and/or coated steel sheet and strip.

Source Address:	250 West, U.S. Highway 12, Burns Harbor, Indiana 46304
Mailing Address:	250 West, U.S. Highway 12, Burns Harbor, Indiana 46304
General Source Phone Number:	(219) 787-2712
SIC Code:	3312
County Location:	Porter
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD, Emission Offset, and Nonattainment NSR 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)]

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This steel works operation consists of a primary source, ISG (Indiana Steel Group) Burns Harbor, LLC (plant ID 00001), located at U.S. Highway 12, Burns Harbor, Indiana, with five contractors:

- (a) Indiana Flame (plant ID 00098);
- (b) Levy Company (plant ID 00026);
- (c) Mid-Continent Coal and Coke (plant ID 00108);
- (d) Oil Technology (plant ID 00074); and
- (e) PSC Metals, Inc. (plant ID 00076).

All are contracted services of ISG Burns Harbor, LLC, which are also located at U.S. Highway 12, Burns Harbor, Indiana.

IDEM has determined that ISG Burns Harbor, LLC, and its contractors, listed above, are one source under the Part 70 operating permit program. This source and its contractors are considered in this manner due to the fact that the contractors are providing ISG Burns Harbor, LLC, with services associated with steel mill operations at the sole permission of ISG Burns Harbor, LLC.

Therefore, the term "source" in the Part 70 documents refers to both ISG Burns Harbor, LLC, and its contractors listed in (a) through (e) above.

Separate Part 70 permits will be issued to ISG Burns Harbor, LLC (TV 127-6301-00001), and its contractors solely for administrative purposes. The contractor Part 70 permit numbers are as follows:

- (a) Indiana Flame (TV 127-16202-00098), an on-site contracted service for operating an enclosed steel slab scarfing facility;
- (b) Levy Company (TV 127-7656-00026), a contracted service for a separation and screening plant;
- (c) Mid-Continent Coal and Coke (TV 127-7634-00108), a contracted service for a portable coke fines screening operation;
- (d) Oil Technology (TV 127-7667-00074), an on-site contracted service for waste oil recovery; and
- (e) PSC Metals, Inc. (TV 127-7664-00076), an on-site contracted service for scrap metal reclamation.

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

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This source is approved to construct and operate the following emission units and pollution control devices:

- (a) One (1) iron ore pellet crushing operation, permitted to be constructed in 2007, with a maximum throughput capacity of 125 tons per hour, including the following:
  - (1) One (1) feed hopper equipped with a Syntron feeder (identified as CF032).
  - (2) One (1) feed conveyor.
  - (3) One (1) single deck screen (identified as SP006).
  - (4) One (1) fine conveyor (identified as SP006 U/B) that travels under the screen.
  - (5) One (1) oversize conveyor (identified as CS021).
  - (6) One (1) conveyor to the crusher (identified as SH001).
  - (7) One (1) pellet ore crusher (identified as CP015).
  - (8) One (1) conveyor (identified as CP015 U/B) that travels under the crusher to the feed conveyor.

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

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This source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

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

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This 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]

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Terms in this approval 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 the Permit [IC13-15-5-3]

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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)]

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Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), 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.

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

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- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

### B.5 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]

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- (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.
- (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.

### B.6 Emergency Provisions [326 IAC 2-7-16]

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- (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 approval;
  - (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;

IDEM OAQ

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 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.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
  
Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.8 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

## SECTION C

## GENERAL OPERATION CONDITIONS

Entire Source

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

#### C.1 Opacity [326 IAC 5-1]

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

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

#### C.2 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).

#### C.3 Source Specific and Facility Emission Limitations for TSP in Porter County [326 IAC 6-6]

Sources and facilities specifically listed in 6-6-5 of this rule shall comply with the limitations contained therein, and in accordance with Section D - Facility Operation Conditions, of this permit. 326 IAC 6-6 is not federally enforceable.

Pursuant to Indiana Code 13-14-8-8 the Commissioner has granted the source a one (1) year variance from the requirements of 326 IAC 6-6-5. The source shall comply with the fugitive dust control plan outlined in 326 IAC 6-6-5 no later than November 17, 2007. The plan and variance letter are included as Attachment A.

### Compliance Requirements [326 IAC 2-1.1-11]

#### C.4 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.5 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

#### C.6 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this approval 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 methods as specified in this approval.

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

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

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- (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.8 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ

may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

### **C.9 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]**

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- (a) Records of all required monitoring data, reports and support information required by this approval 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 approval, all record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.
- (c) If there is a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-3(II) at an existing emissions unit (or at a source with Plant-wide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-3(mm), the Permittee shall comply with following:
  - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II) at an existing emissions unit, document and maintain the following records:
    - (A) A description of the project.
    - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
    - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
      - (i) Baseline actual emissions;
      - (ii) Projected actual emissions;
      - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
      - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
  - (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.10 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (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 reports required by conditions in Section D of this approval 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 approval, any notice, report, or other submission required by this approval 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 approval, all reports required in Section D of this approval 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 approval 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(II) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
  - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and
  - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
  - (1) The name, address, and telephone number of the major stationary source.

- (2) The annual emissions calculated in accordance with (c)(2) and (3) 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 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) One (1) iron ore pellet crushing operation, permitted to be constructed in 2007, with a maximum throughput capacity of 125 tons per hour, including the following:
- (1) One (1) feed hopper equipped with a Syntron feeder (identified as CF032).
  - (2) One (1) feed conveyor.
  - (3) One (1) single deck screen (identified as SP006).
  - (4) One (1) fine conveyor (identified as SP006 U/B) that travels under the screen.
  - (5) One (1) oversize conveyor (identified as CS021).
  - (6) One (1) conveyor to the crusher (identified as SH001).
  - (7) One (1) pellet ore crusher (identified as CP015).
  - (8) One (1) conveyor (identified as CP015 U/B) that travels under the crusher to the feed conveyor.

(The information describing the process contained in this emissions unit 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 Minor Limit [326 IAC 2-2] [326 IAC 2-7-10.5(d)]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following emission limits for the one (1) iron or pellet crushing operation:

- (a) The crushing operation shall not exceed 825,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) PM emissions from primary crushing shall not exceed 0.0054 pounds per ton.
- (c) PM emissions from screening shall not exceed 0.025 pounds per ton.
- (d) PM emissions from conveying shall not exceed 0.003 pounds per ton.

Compliance with these limits shall ensure that the potential to emit of PM for this modification is limited to less than twenty-five (25) tons per year, making it a minor source modification under 326 IAC 2-7-10.5(d)(4)(E) and rendering 326 IAC 2-2 not applicable.

#### D.1.2 Fugitive Dust Emission Limitations [326 IAC 6-4-2]

Pursuant to 326 IAC 6-4-2:

- (a) The screening, and conveying, generating fugitive dust shall be in violation of this rule (326 IAC 6-4) if any of the following criteria are violated:

- (1) 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

- (2) 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:

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

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%).

- (3) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.
- (4) 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.
- (b) 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.

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

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

### **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 crushing, screening, and conveying 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.1.5 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the hours of operation for the crushing operation and the amount of material crushed on a monthly basis.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records of once per day visible emission notations for the crushing, screening, and conveying operations.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.1.6 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address 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).

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: ISG Burns Harbor LLC  
Source Address: 250 West, U.S. Highway 12, Burns Harbor, Indiana 46304  
Mailing Address: 250 West, U.S. Highway 12, Burns Harbor, Indiana 46304  
Part 70 Permit No.: MSM127-24351-00001

**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 DATA SECTION**

**Part 70 Quarterly Report**

Source Name: ISG Burns Harbor LLC  
Source Address: 250 West, U.S. Highway 12, Burns Harbor, Indiana 46304  
Mailing Address: 250 West, U.S. Highway 12, Burns Harbor, Indiana 46304  
Part 70 Permit No.: MSM127-24351-00001  
Facility: Iron ore pellet crushing operation  
Parameter: Crushing and Screening  
Limit: Production shall not exceed 825,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on:

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**COMPLIANCE BRANCH  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**PART 70 SOURCE MODIFICATION  
EMERGENCY OCCURRENCE REPORT**

Source Name: ISG Burns Harbor LLC  
Source Address: 250 West, U.S. Highway 12, Burns Harbor, Indiana 46304  
Mailing Address: 250 West, U.S. Highway 12, Burns Harbor, Indiana 46304  
Part 70 Permit No.: 127-24351-00001

**This form consists of 2 pages**

**Page 1 of 2**

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)
X 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
X The Permittee must submit notice in writing or by facsimile within two (2) working 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
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , 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: ISG Burns Harbor LLC  
 Source Address: 250 West, U.S. Highway 12, Burns Harbor, Indiana 46304  
 Mailing Address: 250 West, U.S. Highway 12, Burns Harbor, Indiana 46304  
 Part 70 Permit No.: MSM127-24351-00001

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

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

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

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

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

<b>Source Description and Location</b>
--

Source Name:	ISG Burns Harbor LLC
Source Location:	250 West, U.S. Highway 12, Burns Harbor, Indiana 46304
County:	Porter
SIC Code:	3312
Minor Source Modification No.:	127-24351-00001
Part 70 Permit No.:	127-6301-00001 (not yet issued)
Permit Reviewer:	ERG/BL

<b>History</b>
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IDEM, OAQ has reviewed a permit application from ISG Burns Harbor LLC, submitted on January 17, 2007, relating to the construction and operation of a crushing and screening plant consisting of the following emission units:

- (a) One (1) iron ore pellet crushing operation, permitted to be constructed in 2007, with a maximum throughput capacity of 125 tons per hour, including the following:
  - (1) One (1) feed hopper equipped with a Syntron feeder (identified as CF032).
  - (2) One (1) feed conveyor.
  - (3) One (1) single deck screen (identified as SP006).
  - (4) One (1) fine conveyor (identified as SP006 U/B) that travels under the screen.
  - (5) One (1) oversize conveyor (identified as CS021).
  - (6) One (1) conveyor to the crusher (identified as SH001).
  - (7) One (1) pellet ore crusher (identified as CP015).
  - (8) One (1) conveyor (identified as CP015 U/B) that travels under the crusher to the feed conveyor.

Note: ISG Burns Harbor LLC submitted an application for a Part 70 permit in 1996. The Part 70 permit has not been issued. The scope of this project will not affect the capacity or throughput of any other operations at ISG Burns Harbor LLC. In 2005, Mittal Steel U.S.A. completed the acquisition of ISG Corporation.

<b>Source Definition</b>
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This steel works operation consists of a primary source, ISG (Indiana Steel Group) Burns Harbor, LLC (plant ID 00001), located at U.S. Highway 12, Burns Harbor, Indiana, with five contractors:

- (a) Indiana Flame (plant ID 00098);
- (b) Levy Company (plant ID 00026);
- (c) Mid-Continent Coal and Coke (plant ID 00108);

- (d) Oil Technology (plant ID 00074); and
- (e) PSC Metals, Inc. (plant ID 00076).

All are contracted services of ISG Burns Harbor, LLC, which are also located at U.S. Highway 12, Burns Harbor, Indiana.

IDEM has determined that ISG Burns Harbor, LLC, and its contractors, listed above, are one source under the Part 70 operating permit program. This source and its contractors are considered in this manner due to the fact that the contractors are providing ISG Burns Harbor, LLC, with services associated with steel mill operations at the sole permission of ISG Burns Harbor, LLC. Therefore, the term "source" in the Part 70 documents refers to both ISG Burns Harbor, LLC, and its contractors listed in (a) through (e) above.

Separate Part 70 permits will be issued to ISG Burns Harbor, LLC (TV 127-6301-00001), and its contractors solely for administrative purposes. The contractor Part 70 permit numbers are as follows:

- (a) Indiana Flame (TV 127-16202-00098), an on-site contracted service for operating an enclosed steel slab scarfing facility;
- (b) Levy Company (TV 127-7656-00026), a contracted service for a separation and screening plant;
- (c) Mid-Continent Coal and Coke (TV 127-7634-00108), a contracted service for a portable coke fines screening operation;
- (d) Oil Technology (TV 127-7667-00074), an on-site contracted service for waste oil recovery; and
- (e) PSC Metals, Inc. (TV 127-7664-00076), an on-site contracted service for scrap metal reclamation.

<b>Existing Approvals</b>
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The source has constructed or has been operating under the following previous approvals:

Permit Type and Number	Facility or Units Permitted	Date of Issuance
PC (64) 707	Sinter Plant	June 24, 1974
PC (64) 716	BOF No.3	July 11, 1974
OP 64-01-93-0157	Coke Oven Battery No.1	January 25, 1989
OP 64-01-93-0175	"C" Blast Furnace Operation	January 25, 1989
OP 64-01-93-0176	"D" Blast Furnace Operation	January 25, 1989
OP 64-01-93-0195	36 Slabbing Mill, Soaking Pits	January 25, 1989
OP 64-01-93-0201	80" Hot Strip Mill (HSM), No.1 Continuous Reheat Furnace	January 25, 1989
OP 64-01-93-0202	80" Hot Strip Mill (HSM), No.2 Continuous Reheat Furnace	January 25, 1989
OP 64-01-93-0203	80" Hot Strip Mill (HSM), No.3 Continuous Reheat Furnace	January 25, 1989
OP 64-01-93-0205	Cold Strip Mill and Cold Reduction Mill	January 25, 1989
OP 64-01-93-0206	160" Plate Mill, Continuous Reheat Furnace No.1 and Boiler No.1	January 25, 1989
OP 64-01-93-0207	160" Plate Mill, Continuous Reheat Furnace No.2 and Boiler No.3	January 25, 1989
OP 64-01-93-0208	160" Plate Mill, Boiler No.2	January 25, 1989
OP 64-01-93-0209	160" Plate Mill, Boiler No.4	January 25, 1989
OP 64-01-93-0210	160" Plate Mill, No.4 and No.5 "In and Out" Reheat Furnaces	January 25, 1989
OP 64-01-93-0211	160" Plate Mill, No.6 and No.7 "In and Out" Reheat Furnaces	January 25, 1989
OP 64-01-93-0212	160" Plate Mill, No.8 Continuous Reheat Furnace	January 25, 1989
OP 64-01-93-0213	160" Plate Mill, Continuous Hardening and Annealing Process	January 25, 1989

OP 64-01-93-0214	160" Plate Mill, No.1 through 8 Slab Reheat Furnaces	January 25, 1989
OP 64-01-93-0215	160" Plate Mill, Slab Conditioning Grinder	January 25, 1989
OP 64-01-93-0216	110" Plate Mill, Normalizing Furnace	January 25, 1989
OP 64-01-93-0217	110" Plate Mill, No.1 and No.2 Continuous Reheat Furnaces	January 25, 1989
OP 64-01-93-0218	Coke Ovens Materials Handling Facilities	January 25, 1989
OP 64-01-93-0222	Blast Furnace Car Dumper	January 25, 1989
OP 64-01-93-0225	BOF Shop, No.1 "West Hot Metal Relading/Desulf. Station	January 25, 1989
OP 64-01-93-0226	BOF Shop, Track Hopper Building	January 25, 1989
OP 64-01-93-0227	BOF Shop, Conveyor Junction H1	January 25, 1989
OP 64-01-93-0228	BOF Shop, Conveyor Junction H2	January 25, 1989
OP 64-01-93-0229	BOF Shop, No.1 Vessel Storage Bins	January 25, 1989
OP 64-01-93-0230	BOF Shop, No.2 Vessel Storage Bins	January 25, 1989
OP 64-01-93-0231	BOF Shop, No.1 Vessel Weigh Hopper	January 25, 1989
OP 64-01-93-0232	BOF Shop, No.2 Vessel Weigh Hopper	January 25, 1989
OP 64-01-93-0233	BOF Shop, No.3 Vessel Weigh hopper	January 25, 1989
OP 64-01-93-0234	Batch Annealing Operations 24 Four-Stack Furnaces	January 25, 1989
OP 64-01-93-0235	Cold Strip Mill, Continuous Heat Treat Line Heat and Soak Zone	January 25, 1989
OP 64-01-93-0236	Cold Strip Mill, Continuous Heat Treat Line Reheat Zone	January 25, 1989
OP 64-01-93-0237	Cold Strip Mill, Two Stand Cold Reduction Mill	January 25, 1989
OP 64-01-93-0238	Cold Strip Mill, Continuous Pickle Lines No.1 and No.2	January 25, 1989
OP 64-01-93-0239	Cold Strip Mill, Electrogalvanizing Line Cleaning and Pickling Tanks	January 25, 1989
OP 64-01-93-0240	Cold Strip Mill, Electrogalv. Line Zinc Plating Bath & Chem. Treat. Sect.	January 25, 1989
OP 64-01-93-0241	Cold Strip Mill, Electrogalvanizing Line Zinc/Alloy Plating Bath	January 25, 1989
PC (64) 1788	Vacuum Degasser	February 14, 1990
OP 3420-0001-0258	Vacuum Degasser Process	August 23, 1990
CP 127-2480-00001	Hot Metal Desulfurization	November 12, 1992
CP 127-1989-00001	Hot Dip Coating Line (HDCL)	February 14, 1992
CP 127-2802-00001	Blast Furnace Granulated Coal Injection (BFGCI) System	August 4, 1993
CP 127-2725-00001	Coke Battery No.2 Reconstruction and Operation	January 28, 1994
CP 127-4478-00001	Hot Strip Mill (HSM), Reheat Furnace No.4	September 15, 1995
AA 127-8331-00001	Hot Strip Mill (HSM), Reheat Furnace No.4	April 17, 1997
SSM 127-15656-00001	Modification to CP127-2725-00001	October 17, 2002
127-19106-00001	Modification to CP127-2725-00001, OP condition No.8	July 16, 2004

**County Attainment Status**

The source is located in Porter County.

Pollutant	Status
PM	Attainment
PM10	Unclassifiable
PM2.5	Moderate Nonattainment
SO <sub>2</sub>	Maintenance Attainment
NO <sub>x</sub>	Attainment
8-hour Ozone	Moderate Nonattainment
CO	Attainment
Lead	Attainment

- (a) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Porter 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 non-attainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for 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 Non-attainment New

Source Review requirements. See the State Rule Applicability - Entire Source section.

- (b) 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. Porter County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.
- (c) Porter County has been classified as attainment or unclassifiable in Indiana for PM, PM-10, NOx, CO, SO<sub>2</sub>, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (d) Fugitive Emissions  
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

<b>Source Status</b>
----------------------

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	>100
PM10	>100
SO <sub>2</sub>	>100
VOC	>100
CO	>100
NO <sub>x</sub>	>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 a nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.

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)
Single HAP	>10
Combination of HAPs	>25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are greater than ten (10) tons per year for any single HAP and greater than twenty-five (25) tons per year of a combination of HAPs.

The following table shows the actual emissions from the source. This information reflects the 2004 OAQ emission data submitted by ISG Burns Harbor, LLC, for the prior year of 2003.

Pollutant	Actual Emissions (tons/year)
PM	2,552
PM-10	2,552
SO <sub>2</sub>	16,597
VOC	569
CO	112,116
NO <sub>x</sub>	6,905
Pb	3.44
HAP (specify)	Not reported

**Description of Proposed Modification**

The Office of Air Quality (OAQ) has reviewed an application, submitted by ISG Burns Harbor LLC on January 17, 2007, relating to the construction and operation of a crushing and screening plant. The following is a list of the proposed emissions units and pollution control devices:

- (a) One (1) iron ore pellet crushing operation, permitted to be constructed in 2007, with a maximum throughput capacity of 125 tons per hour, including the following:
  - (1) One (1) feed hopper equipped with a Syntron feeder (identified as CF032).
  - (2) One (1) feed conveyor.
  - (3) One (1) single deck screen (identified as SP006).
  - (4) One (1) fine conveyor (identified as SP006 U/B) that travels under the screen.
  - (5) One (1) oversize conveyor (identified as CS021).
  - (6) One (1) conveyor to the crusher (identified as SH001).
  - (7) One (1) pellet ore crusher (identified as CP015).
  - (8) One (1) conveyor (identified as CP015 U/B) that travels under the crusher to the feed conveyor.

**Enforcement Issues**

There are no enforcement issues related to this modification.

**Emission Calculations**

See Appendix A of this document for detailed emission calculations, page 1 of 1.

**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	31.4
PM10	11.5
SO <sub>2</sub>	-
VOC	-
CO	-
NO <sub>x</sub>	-

There are no HAP emissions from the new emission units.

This source modification is subject to 326 IAC 2-7-10.5(d)(4)(B) because the source is taking a limitation on the hours of operation to ensure this modification results in a potential to emit of PM and PM10 less than 25 tons per year.

**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	Potential to Emit (tons/year)						
	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Primary Crushing	2.23	0.99	-	-	-	-	-
Screening	10.3	3.59	-	-	-	-	-
Conveying	11.1	4.08	-	-	-	-	-
<b>Total Emissions From Crusher Plant</b>	<b>23.7</b>	<b>8.66</b>	-	-	-	-	-
PSD/Emission Offset Thresholds	25	15	40	40	100	40	NA

- (a) This modification to an existing major stationary source is not major because the emissions increase in PM due to this modification is limited by conditions in the permit to less than the PSD significant level (25 tons per year). Therefore, the provisions of 326 IAC 2-2 (PSD) do not apply.
- (b) Porter 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. The modification to ISG Burns Harbor LLC does not have the potential to emit of PM10 of fifteen (15) tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-1.1-5 does not apply for PM2.5.

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

- (a) The crushing operation shall not exceed 825,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This usage limit is required to limit the potential to emit of PM to less than twenty five (25) tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. The modification to ISG Burns Harbor LLC does not have the

potential to emit of PM10 of fifteen (15) tons per year, therefore 326 IAC 2-1.1-5 (Nonattainment NSR) does not apply.

- (b) PM emissions from primary crushing shall not exceed 0.0054 pounds per ton.
- (c) PM emissions from screening shall not exceed 0.025 pounds per ton.
- (d) PM emissions from conveying shall not exceed 0.003 pounds per ton.

The allowable emission rate for this unit was calculated using uncontrolled emission factors, from AP-42 Chapter 11.19.2 - Crushed Stone Processing and Pulverized Mineral Processing (August 2004 edition).

#### **Federal Rule Applicability Determination**

- (a) The requirements of New Source Performance Standard, 40 CFR 60.670 through 60.676, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants are not applicable to this modification because the capacity of this crushing and screening plant is less than 150 tons per hour. [40 CFR 60.670(c)(2)]
- (b) The requirements of New Source Performance Standard 326 IAC 12, 40 CFR 60.380 through 60.686, Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (326 IAC 12) are not applicable to this modification since the operations are not producing metallic mineral concentrates from ore. The slag crushing and/or screening operations are not performed in a mine or pit.  
  
There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

#### **State Rule Applicability Determination**

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

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), 326 IAC 2-3 (Emission Offset), and 326 IAC 2-1.1-5 (Nonattainment NSR)  
PSD, Emission Offset, and Nonattainment NSR 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 this crushing and 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, the requirements of 326 IAC 2-4.1 do not apply to this modification.

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 the permit:

- (a) Opacity shall not exceed an average of forty percent (40%) 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 6-4-2 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4-2:

- (a) The screening, and conveying, generating fugitive dust shall be in violation of this rule (326 IAC 6-4) if any of the following criteria are violated:

- (1) 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

- (2) 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:

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

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%).

- (3) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.
- (4) 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.

- (b) 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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

The ISG Burns Harbor LLC fugitive dust control strategy is outlined in 326 IAC 6-6-5. Pursuant to 326 IAC 6-5-1, the source is exempt from the requirements of 326 IAC 6-5.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

The source is located in Porter County. Therefore 326 IAC 6.5 does not apply.

326 IAC 6-6-5 (Bethlehem Steel Corporation fugitive dust control strategy)

Pursuant to Indiana Code 13-14-8-8 the Commissioner has granted ISG Burns Harbor LLC a one (1) year variance from the requirements of 326 IAC 6-6-5. The source shall comply with the fugitive dust control plan outlined in 326 IAC 6-6-5 no later than November 17, 2007. The plan and variance letter are included as Attachment A.

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 following compliance monitoring requirements are applicable to this source:

- (a) Visible emission notations of the crushing, screening, and conveying 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.

### **Conclusion and Recommendation**

The construction and operation of this proposed modification (crushing and screening plant) shall be subject to the conditions of the attached proposed Minor Source Modification No. 127-24351-00001. The staff recommends to the Commissioner that this Part 70 Minor Source Modification be approved.

**Appendix A: Emission Calculations**  
**PM/PM10 Emissions from Portable Crushing and Screening**

**Company Name:** ISG Burns Harbor LLC  
**Address:** 250 West, U.S. Highway 12 Burns Harbor IN 46304  
**Minor Source Modification:** 127-24351-00001  
**Reviewer:** ERG/BL  
**Date:** March 21, 2007

	Maximum Capacity (tons/hr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PTE PM @ 8760 hrs/yr (tons/yr)	PTE PM10 @ 8760 hrs/yr (tons/yr)	Limited PTE PM @ 825000 (tons/yr)	Limited PTE PM10 @ 825000 (tons/yr)
Primary Crushing	125	0.0054	0.0024	2.96	1.31	2.23	0.99
Screening	125	0.0250	0.0087	13.7	4.76	10.3	3.59
Conveying *	125	0.0030	0.0011	14.8	5.42	11.1	4.08
Total				31.4	11.5	23.7	8.66

The crushing operation shall not exceed 825,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Emission factors are from AP-42, Chapter 11.19.2 (Crushed Stone Processing and Pulverized Mineral Processing), Table 11.19.2-2 Tertiary Crushing (SCC 3-050030-03), Screening (SCC 3-05-020-02, 03), Conveyor Transfer Point (SCC 3-05-020-06) (August 2004 edition).

\* There are nine (9) transfer points.

**Methodology**

Potential to Emit (tons/yr) = Maximum Capacity (tons/hr) x Emission Factor (lb/ton) x 1 ton/2,000 lbs x 8,760 hrs/yr

Limited Potential to Emit (tons/yr) = Maximum Capacity (tons/hr) x Emission Factor (lb/ton) x 1 ton/2,000 lbs x 6,600 hrs/yr