

Mr. James R. Carson
Inland Steel Company
3210 Watling Street MC 8-130
East Chicago, IN 46312

Re: Minor Source Modification No:
089-10601-00316

Dear Mr. Carson:

Inland Steel Company applied for a Part 70 operating permit on September 16, 1996 for a steel mill. An application to modify the source was received on February 2, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) one (1) vacuum tank degasser to be installed at the No. 1 electric arc furnace, with a maximum capacity of 111.3 tons of steel per hour, with emissions uncontrolled and exhausting to stack 208; and
- (b) one (1) natural gas fired boiler, with a maximum capacity of 41.5 million British thermal units per hour, with emissions uncontrolled and exhausting to stack 207.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). The source may begin operation upon issuance of the source modification approval.

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, press 0 and ask for Nisha Sizemore or extension 2-8356, or dial (317) 232-8356.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

nls

cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
IDEM Northwest Office
Air Compliance Section Inspector - Rick Massoels
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Nancy Landau

**PART 70 MINOR SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT
and IDEM Northwest Office**

**Inland Steel Company
3210 Watling Street MC 8-130
East Chicago, Indiana 46312**

(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.

Minor Source Modification No.: 089-10601-00316	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 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)]

The Permittee owns and operates a steel mill

Responsible Official: John D. Fekete
Source Address: 3210 Watling Street MC 8-130, East Chicago, IN 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, IN 46312
Phone Number: James R. Carson: 219 399-4516
SIC Code: 3312
County Location: Lake
County Status: Nonattainment for PM10, ozone, NOx, SO2, and CO
Attainment for all other criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under Emission Offset Rules;
Major Source, Section 112 of the Clean Air Act

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

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

- (1) one (1) vacuum tank degasser to be installed at the No. 1 electric arc furnace, with a maximum capacity of 111.3 tons of steel per hour, with emissions uncontrolled and exhausting to stack 208; and
- (2) one (1) natural gas fired boiler, with a maximum capacity of 41.5 million British thermal units per hour, with emissions uncontrolled and exhausting to stack 207.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22); and
- (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 CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

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

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, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

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

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

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.5 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60.40c, Subpart Dc, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- (a) Commencement of construction date (no later than 30 days after such date);
- (b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- (c) Actual start-up date (within 15 days after such date); and
- (d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

The application and enforcement of these standards have been delegated to the IDEM-OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

SECTION C GENERAL OPERATION CONDITIONS

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

- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this approval, 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, on the attached Certification Form, with each submittal.
- (c) A 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 approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, 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;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP 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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.
- (b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

- (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.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this approval:

- (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.5 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

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

C.6 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 approval, utilizing methods approved by IDEM, OAM.

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

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

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

C.7 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 approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

- (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, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not 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.8 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information 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 kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. 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 written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.

- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this approval;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.9 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) 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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) 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, OAM, on or before the date it is due.
- (c) Unless otherwise specified in this approval, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) 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.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

one (1) natural gas fired boiler, with a maximum capacity of 41.5 million British thermal units per hour, with emissions uncontrolled and exhausting to stack 207.

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

D.1.1 Particulate Matter (PM)

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from the 41.5 MMBtu per hour heat input boiler shall be limited to 0.12 pound per million Btu of heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).

Q = Total source maximum operating capacity rating in million Btu per hour of heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

D.1.2 NOx

Any change or modification which will increase the NOx emissions to greater than 18.2 tons per year requires prior approval pursuant to 326 IAC 2-3 (Emission Offset).

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 this facility.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

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

D.1.5 Record Keeping Requirements

- (a) To comply with 40 CFR Part 60.48c(g), the Permittee shall maintain records of the amount of fuel combusted during each day.
- (b) The natural gas fired boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

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

one (1) vacuum tank degasser to be installed at the No. 1 electric arc furnace, with a maximum capacity of 111.3 tons of steel per hour, with emissions uncontrolled and exhausting to stack 208.

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

D.2.1 Carbon Monoxide (CO)

In order to render the requirements of 326 IAC 2-7-10.5(g) not applicable, the CO emissions from the vacuum degasser shall not exceed 0.17 pounds per ton of steel throughput to the degasser. Compliance with this emission factor is necessary in order that these new emission units require only a minor modification pursuant to 326 IAC 2-7-10.5(d)

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

Within 180 days after issuance of this permit or within 180 days after startup, whichever is later, the Permittee shall perform CO testing using methods as approved by the Commissioner, in order to demonstrate compliance with the CO emission factor of 0.17 pounds of CO per ton of steel. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance. shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
IDEM Northwest Office**

**PART 70 SOURCE MODIFICATION
CERTIFICATION**

Source Name: Inland Steel Company
Source Address: 3210 Watling Street MC 8-130, East Chicago, IN 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, IN 46312
Source Modification No.: 089-10601-00316

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

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 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:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
IDEM Northwest Office**

**PART 70 OPERATING PERMIT
NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Inland Steel Company
Source Address: 3210 Watling Street MC 8-130, East Chicago, IN 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, IN 46312
Source Modification No.: 089-10601-00316

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

Report period

Beginning: _____

Ending: _____

Boiler Affected

Alternate Fuel

Days burning alternate fuel
From To

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:

Date:

**Indiana Department of Environmental Management
Office of Air Management
and IDEM Northwest Office**

Technical Support Document (TSD) for a Source Modification to a Part 70
Operating Permit

Source Background and Description

Source Name:	Inland Steel Company
Source Location:	3210 Watling Street MC 8-130, East Chicago, IN 46312
County:	Lake
SIC Code:	3312
Operation Permit No.:	T 089-6577-00316
Operation Permit Issuance Date:	not yet issued
Source Modification No.:	T 089-10601-00316
Permit Reviewer:	Nisha Sizemore

The Office of Air Management (OAM) has reviewed a modification application from Inland Steel Company relating to the operation of a steel mill, consisting of the following new equipment:

- (a) one (1) vacuum tank degasser to be installed at the No. 1 electric arc furnace, with a maximum capacity of 111.3 tons of steel per hour, with emissions uncontrolled and exhausting to stack 208; and
- (b) one (1) natural gas fired boiler, with a maximum capacity of 41.5 million British thermal units per hour, with emissions uncontrolled and exhausting to stack 207.

History

On February 2, 1999, Inland Steel Company submitted an application to the OAM requesting to add the above listed equipment to their existing steel mill. Inland Steel Company submitted a Part 70 permit application, Part 70 permit no. T089-6577-00316, on September 16, 1996. The Part 70 permit has not yet been issued.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
207	boiler	unknown	unknown	unknown	unknown
208	vacuum degasser	unknown	unknown	unknown	unknown

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 2, 1999. Additional information was received on February 16, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (5 pages).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source 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."

The potential to emit of the new equipment is as follows:

Pollutant	Potential To Emit (tons/year)
PM	1.40
PM-10	1.40
SO ₂	0.10
VOC	1.00
CO	25.05
NO _x	18.20

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
formaldehyde	less than 10
hexane	less than 10
TOTAL	less than 25

The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM, PM10, SO2, NOx, and VOC is less than 25 tons per year; therefore the of this new equipment does not require a significant source modification pursuant to 326 IAC 2-7-10.5(g). The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of NOx and CO is greater than 10 and 25 tons per year but less than 25 and 100 tons per year, respectively; therefore the installation of this new equipment requires a minor source modification pursuant to 326 IAC 2-7-10.5(d).

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	Moderate Nonattainment
SO ₂	Primary Nonattainment
NO ₂	Severe Nonattainment
Ozone	Severe Nonattainment
CO	Nonattainment
Lead	Attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as nonattainment for ozone.

Federal Rule Applicability

- (a) The natural gas fired boiler is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc) because it will be constructed after June 9, 1989 and has a heat input capacity greater than 10 million Btu per hour and less than 100 million Btu per hour. Pursuant to this rule, records shall be kept of the amount of fuel combusted each day. All records shall be maintained for a period of two years following the date of such record. There are no other requirements pursuant to this rule because the boiler combusts only natural gas.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-3 (Emission Offset Minor Source Limit)

The following table shows the NO_x and VOC emissions increases due to modifications at Inland Steel Company during the five-year period prior to and including 1998 (i.e. 1994 through 1998).

Facility	NO _x (tons/year)
No. 1 normalizer preheater replacement	1.5
No. 2 bloomer scarf. baghouse	1.6
No. 6 box anneal (H-1, H-2)	0.8
No. 6 anneal 2 H-1 & H-2 base	0.8
Subtotal all increases	4.7
Proposed Modification (new vacuum degasser)	18.2
Totals	22.9
Offset de minimis level	25

NOx and VOC emissions increases over the past 5 years are less than the de minimis levels of 25 tons per year, therefore, 326 IAC 2-3 (Emission Offset) does not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is located in Lake County and has the potential to emit more than ten (10) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity)

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 this permit:

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

State Rule Applicability - boiler

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to this rule, the PM emissions from the boiler shall not exceed 0.12 pound per million Btu of heat input. This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).

Q = Total source maximum operating capacity rating in million Btu per hour of heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Based on calculations made, the boiler is in compliance with this requirement.

326 IAC 7-1 (Sulfur Dioxide Emission Limitations)

The boiler is not subject to the requirements of this rule because the boiler does not have the potential to emit 25 tons per year or ten pounds per hour of sulfur dioxide.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5.

As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also 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 monitoring requirements applicable to this source are as follows:

1. The boiler has applicable compliance monitoring conditions as specified below:
 - (a) Records shall be kept of the amount of fuel combusted each day. All records shall be maintained for a period of two years following the date of such record.

These monitoring conditions are necessary in order to comply with 40 CFR Part 60.40c, Subpart Dc.

1. The vacuum degasser has applicable compliance monitoring conditions as specified below:
 - (a) Within 180 days after issuance of this permit, the Permittee shall perform CO emissions testing utilizing methods as approved by the Commissioner. These tests shall be completed in order to demonstrate compliance with the emission factor of 0.17 pounds of CO per ton of steel. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) This new equipment will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations for detailed air toxic calculations.

Conclusion

The operation of this new boiler and new vacuum degasser shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification, Permit No. T089-10601-00316 to Part 70, Permit No. T089-6577-00316.