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Governor

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August 16, 2004

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TO: Interested Parties / Applicant

RE: Beta Steel Corporation / T127-9691-00036

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and

- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

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

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

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

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

PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Beta Steel Corporation
6500 South Boundary Road
Portage, Indiana 46368**

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

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

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

Operation Permit No.: T127-9691-00036	
Issued by: Original signed by Paul Dubenetzky Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: August 12, 2004 Expiration Date: August 12, 2009



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Beta Steel Corp.
Portage, Indiana
Permit Reviewer: Gail McGarrity

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Certification
Emergency Occurrence Report
Quarterly Deviation and Compliance Monitoring Report
Quarterly Reports



SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a mini steel mill.

Responsible Official:	Director of Manufacturing
Source Address:	6500 South Boundary Road, Portage, IN 46368
Mailing Address:	6500 South Boundary Road, Portage, IN 46368
General Source Phone Number:	219-787-8200
SIC Code:	3312
County Location:	Porter
Source Location Status:	Nonattainment for 1-hour Ozone Standard Nonattainment for 8-hour Ozone Standard Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Emission Offset Rules; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

This stationary source comprised of the following emission units and pollution control devices:

- (1) One (1) Melt Shop with a production capacity of 1.1 million tons per year of steel comprised of the following:
 - (a) One (1) twin shell electric arc furnace (EAF), identified as unit 1, constructed in 1997, having a maximum capacity of 151 tons per hour, equipped with a direct shell evacuation (DSE) control system ("fourth hole" duct), an overhead roof exhaust system consisting of a canopy hood, an air gap for controlling carbon monoxide (CO) and volatile organic compounds (VOC) emissions, low - NOx/oxyfuel burners and the melt shop baghouse CE-2 controlling PM/PM10 emissions, exhausting through stack S-2 with a continuous opacity monitor (COM).
 - (b) One (1) ladle metallurgical station, identified as unit 2, constructed in 1997, having a maximum capacity of 151 tons per hour, exhausting to a side draft hood ducted to the melt shop baghouse CE-2 exhausting through stack S-2 with a COM.
 - (c) One (1) continuous caster, identified as unit 3, constructed in 1997, having a maximum capacity of 151 tons per hour, with emissions from the hot metal handling and pouring operations exhausting to a canopy hood and ducted to the melt shop baghouse CE-2, then through stack S-2 with a COM. Steam from the slab cooling operations is vented through a steam vent in the roof of the Melt Shop Building.



- (d) One (1) Slag Air Cooling Bay Area, identified as unit 4, constructed in 1997, having a maximum capacity of 10 tons per hour, exhausting through the Slag Cooling Bays exhaust system to the melt shop baghouse CE-2 for controlling PM/PM10 emissions, exhausting through the melt shop Stack (S-2) with a COM.
 - (e) Three (3) natural gas fired, ladle preheat holding stations identified as units 5, 6 and 7, constructed in 1997, having a heat input capacity of 11.5 MMBtu per hour each, exhausting to canopy hoods ducted to the melt shop baghouse CE-2, exhausting through the melt shop stack S-2 with a COM.
 - (f) One (1) natural gas fired, ladle preheat holding station, identified as unit 8, constructed in 1997, having a heat input capacity of 6 MMBtu per hour. Emissions exhaust to canopy hoods ducted to the melt shop baghouse CE-2, then exhausting through stack S-2, with a COM.
 - (g) One (1) natural gas fired, Tundish dry out and preheat station identified as unit 9, constructed in 1997, having a heat input capacity of 3.5 MMBtu per hour. Emissions exhaust to canopy hoods ducted to the melt shop baghouse CE-2, then exhausting through stack S-2, with a COM.
 - (h) One (1) CoJet System including oxy-fuel burners
 - (i) Oxy-fuel cutoff Torch at the exit end of the continuous caster
- (2) Hot Strip Mill Operations with a maximum capacity of 1.16 MM ton per year steel production, comprised of the following:
- (a) One (1) 264.6 MMBtu/hour natural gas fired Reheat Furnace identified as unit 10, constructed in 1992, equipped with low NOx burners and a Selective Catalytic Reduction (SCR) Unit (CE-1), exhausting to Reheat Furnace Stack (S-1).
 - (b) One (1) 60-inch Hot Strip Mill consisting of unit 11 (Hot Rolling Mill), unit 12 (Strip Cooling Line) and unit 13 (Coiler), constructed in 1991, having a maximum capacity of 170 tons per hour.
- (3) Fugitive dust and material handling processes
- (a) Roadways and parking lots are paved
 - (b) Material Handling
 - (1) EAF slag pit dig out operations are controlled by a canopy hood exhausted to melt shop baghouse (CE-2) through stack S-2, with a COM.
 - (2) Slag and materials, except steel scrap are handled in the melt shop building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-2) and exhaust through stack S-2, with a COM.
 - (3) Slag and materials, exclusive of steel scrap are stored within the enclosed building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-2) and exhaust through stack S-2, with a COM.



- (4) EAF slag cooling operations are conducted in the enclosed slag cooling area controlled by the melt shop baghouse (CE-2) through stack S-2, with a COM.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also comprised of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Specifically regulated insignificant activities
 - (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
 - (b) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100°F).
- (2) Other insignificant activities
 - (a) Space heaters, process heaters, or boilers using the following fuels:
 - (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
 - (ii) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
 - (b) Combustion source flame safety purging on startup.
 - (c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
 - (d) The following VOC and HAP storage containers: Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
 - (e) Refractory storage not requiring air pollution control equipment.
 - (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
 - (g) The following equipment related to manufacturing activities not resulting in the emission of HAPS: brazing equipment, cutting torches, soldering equipment, welding equipment.
 - (h) Closed loop heating and cooling systems.
 - (i) Any of the following structural steel and bridge fabrication activities:
 - (1) Cutting 200,000 linear feet or less of one inch (10) plate or equivalent.
 - (2) Using 80 tons or less of welding consumables.
 - (j) Activities associated with the treatment of wastewater streams with an oil and



grease content less than or equal to 1% by volume.

- (k) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPS.
- (l) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.
- (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (n) Heat exchanger cleaning and repair.
- (o) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (p) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia, and sulfur trioxide.
- (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (r) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (s) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower.
- (t) Filter or coalesce media change out.
- (u) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kiloPascals measured at 38 degrees C).
- (v) A laboratory as defined in 326 IAC 2-7-1(21) (D).
- (w) A gasoline transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling tanks having a capacity equal to less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

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

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

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



SECTION B GENERAL CONDITIONS

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

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

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

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

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

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

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

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



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

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

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

and

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

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

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;



- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) 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.11 Emergency Provisions [326 IAC 2-7-16]

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



OAQ and Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

Telephone Number: 1-888-209-8892 (Northwest Regional Office) (Toll free within Indiana)
Telephone Number: 219-757-0265(Northwest Regional Office)
Facsimile Number: 219-757-0267

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c) (9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.



- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

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



(Sections 502(b) (10) of the Clean Air Act changes) and 326 IAC 2-7-20(c) (2) (trading based on State Implementation Plan (SIP) provisions).

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

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

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3) (C) (ii)]

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

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

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

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6) (C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

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



15-7-2 or if IDEM, OAQ determines any of the following:

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

B.16 Permit Renewal [326 IAC 2-7-4]

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

Request for renewal shall be submitted to:

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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a) (1) (D)]
- (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) 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.
 - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]



If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.17 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- 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)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b) (2)]

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

B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;



- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

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

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

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

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

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

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).



- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

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

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



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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]

Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.



SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

- C.1 Particulate Emission Limitations for Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]
-
- (a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.
- C.2 Opacity [326 IAC 5-1]
-
- Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (a) Opacity shall not exceed an average of 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
-
- The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a) (2) (A) and (B) are not federally enforceable.
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
-
- The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
-
- The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.
- C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]
-
- Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 10, 1991. The plan is included as Attachment B.
- C.7 Operation of Equipment [326 IAC 2-7-6(6)]
-

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit 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.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4 and 326 IAC 1-7-5 (a), (b) and (d) are not federally enforceable.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Permit Reviewer: Gail McGarrity

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

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

C.10 Performance Testing [326 IAC 3-6]

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

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ no later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 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.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

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

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

C.13 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3) (A) (iii)]

- (a) The Permittee shall, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment.
- (b) In the event that a breakdown of a continuous opacity monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous opacity monitor (COM) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup COM shall be brought online within four (4) hours of shutdown of the primary COM, if possible. If this is not possible, visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of one (1) hour beginning four (4) hours after the start of the malfunction or down time.
 - (1) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.
 - (2) Method 9 opacity readings shall be repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.
 - (3) All of the opacity readings during this period shall be reported in the Quarterly Deviation and Compliance Monitoring Reports.

- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, (and 40 CFR 60 and/or 40 CFR 63).

C.14 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3) (A) (iii)]

- (a) The Permittee shall, install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment as specified in Section D.
- (b) All continuous emissions monitoring systems shall meet applicable performance specifications of 40 CFR 60, 40 CFR 75 or any other performance specification, and are subject to system certification requirements pursuant to 326 IAC 3-5-3.

C.15 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.16 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (" 2%) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature or emission rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (" 2%) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

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

C.17 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

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

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC

2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.18 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.19 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) to include such response steps taken.

The OMM Plan (or Parametric Monitoring and SSM Plan) shall be submitted within the time frames specified by the applicable 40 CFR 60/63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction

(SSM) Plan) ; or

- (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be 10 days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.
- C.20 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]
-
- (a) When the results of a stack test performed in conformance with Section C - Performance

Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

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

The 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.21 Emission Statement [326 IAC 2-7-5(3) (C) (iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)]
[326 IAC 2-6]

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

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

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

C.22 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required data, reports 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. 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.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.23 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 report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.24 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

Section D.1 FACILITY OPERATION CONDITIONS

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

Melt Shop Operations with a maximum throughput of 1.1 MM tons of steel per year, comprised of the following facilities:

- (a) One (1) twin shell electric arc furnace (EAF), identified as unit 1, constructed in 1997, having a maximum capacity of 151 tons per hour, equipped with a direct shell evacuation (DSE) control system ("fourth hole" duct), an overhead roof exhaust system consisting of a canopy hood, an air gap for controlling carbon monoxide (CO) and volatile organic compounds (VOC) emissions, low -NOx/oxyfuel burners and the melt shop baghouse CE-2 controlling PM/PM10 emissions, exhausting through stack S-2 with a continuous opacity monitor (COM).
- (b) One (1) ladle metallurgical station, identified as unit 2, constructed in 1997, having a maximum capacity of 151 tons per hour, exhausting to a side draft hood ducted to the melt shop baghouse CE-2 exhausting through stack S-2 with a COM.
- (c) One (1) continuous caster, identified as unit 3, constructed in 1997, having a maximum capacity of 151 tons per hour, with emissions from the hot metal handling and pouring operations exhausting to a canopy hood and ducted to the melt shop baghouse CE-2, then through stack S-2 with a COM. Steam from the slab cooling operations is vented through a steam vent in the roof of the Melt Shop Building.
- (d) One (1) Slag Air Cooling Bay Area, identified as unit 4, constructed in 1997, having a maximum capacity of 10 tons per hour, exhausting through the Slag Cooling Bays exhaust system to the melt shop baghouse CE-2 for controlling PM/PM10 emissions, exhausting through the melt shop Stack (S-2) with a COM.
- (e) Three (3) natural gas fired, ladle preheat holding stations identified as units 5, 6 and 7, constructed in 1997, having a heat input capacity of 11.5 MMBtu per hour each, exhausting to canopy hoods ducted to the melt shop baghouse CE-2, exhausting through the melt shop stack S-2 with a COM.
- (f) One (1) natural gas fired, ladle preheat holding station, identified as unit 8, constructed in 1997, having a heat input capacity of 6 MMBtu per hour. Emissions exhaust to canopy hoods ducted to the melt shop baghouse CE-2, then exhausting through stack S-2, with a COM.
- (g) One (1) natural gas fired, Tundish dry out and preheat station identified as unit 9, constructed in 1997, having a heat input capacity of 3.5 MMBtu per hour. Emissions exhaust to canopy hoods ducted to the melt shop baghouse CE-2, then exhausting through stack S-2, with a COM.
- (h) One (1) CoJet System including oxy-fuel burners
- (i) Oxy-fuel cutoff Torch at the exit end of the continuous caster

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

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

D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the EAF except when otherwise specified in 40 CFR Part 60, Subpart AAa.

D.1.2 Particulate Limitation (NSPS) [40 CFR 60 Subpart AAa]

Pursuant to 40 CFR 60, Subpart AAa (Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarbonization Vessels Constructed After August 7, 1983), particulate emissions from the melt shop baghouse shall not exceed 0.0052 grains per dry standard cubic feet.

D.1.3 Particulate Matter (PM/PM-10) - Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A 127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), (PM/PM10 where PM-10 includes filterable and condensable components) from the melt shop baghouse stack S-2 (exhausting EAF, LMF, Caster and natural gas combustion units) shall not exceed 0.0052 grains per dry standard cubic feet (gr/dscf) and 58.8 pounds per hour (257 tons/year). The EAF shall be controlled by 140,000 acfm direct shell evacuation (DSE) system. The DSE and canopy hoods shall be ducted to the melt shop baghouse rated at least 1.0 million actual cubic feet per minute (MM acfm), demonstrating 100% capture.
- (b) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), PM/PM-10 emissions from the one (1) continuous caster (unit 3) shall be captured by a canopy hood at 160,000 acfm and exhausted to the melt shop baghouse.
- (c) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), PM/PM-10 emissions from the one (1) ladle metallurgical station (unit 2) shall be captured by a side draft hood and exhausted to the melt shop baghouse.
- (d) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), the fugitive PM/PM10 emissions during furnace operations shall be captured by the roof canopies or contained and collected within the melt shop building.
- (e) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), except for scrap steel, slag and raw material handling and storage shall be conducted inside the melt shop.

D.1.4 Nitrogen Oxides (NO_x) - Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the NO_x emissions from the melt shop operations (consisting of the EAF, LMF, Caster and natural gas combustion units) shall not exceed forty five hundredths (0.45) pound per ton of steel produced and 67.95 pounds per hour (247.5 tons/year) through the melt shop stack (S-2).
- (b) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment of CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (BACT), the (3) Ladle Preheat/Holding Stations shall be limited to the use of low NO_x natural gas fired burners. Each Ladle Preheat/Holding Station shall not exceed 11.5 MMBtu per hour heat input. Emissions from the three (3) stations shall be exhausted to the melt shop baghouse exhaust S-2.

- (c) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment of CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the (1) ladle/preheat station shall be limited to the use of low NOx natural gas fired burners and not exceed 6.0 MMBtu per hour heat input. Emissions from the one (1) ladle/preheat station shall be exhausted to the melt shop baghouse exhaust S-2.
- (d) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment of CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the (1) Tundish, Dry out and Preheat Station shall be limited to the use of low NOx natural gas fired burners and not exceed 3.5 MMBtu per hour heat input. Emissions from the one (1) Tundish, Dry out and Preheat Station shall be exhausted to the melt shop baghouse exhaust S-2.

D.1.5 Sulfur Dioxide (SO₂) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), the SO₂ emissions from the melt shop stack (S-2) (exhausting EAF, LMF, Caster and natural gas combustion units) shall not exceed 0.33 pounds per ton of steel produced and 49.83 pounds per hour (181.5 tons/year) from the baghouse stack.

D.1.6 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC2-2-3(2), Best Available control Technology (BACT), the EAF shall be controlled by 140,000 acfm direct shell evacuation (DSE) system. The combustion elbow at the DSE shall be designed to provide 200% excess air for the oxidation of CO and other present gaseous pollutants.
- (b) Pursuant to A 127-9642-00036 issued on May 30, 2003 (an amendment to CP 127-2326-00036, issued on February 24, 1992) and 326 IAC 2-2-3 (BACT), the total Melt Shop Stack (S-2) (exhausting EAF, LMF, Caster and natural gas combustion units) CO emissions shall not exceed 817 pounds per hour (3,578.8 tons/year).

D.1.7 Carbon Monoxide (CO) [326 IAC 9-1]

Pursuant to A 127-9642-0003, issued on May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 9-1 (Carbon Monoxide Emission Limits), the CO concentrations shall be less than 20% of the maximum one (1) hour National Ambient Air Quality Standards (NAAQS) of 40 milligrams per cubic meter (40,000 ug/m³, 35 ppm). Modeling results indicate that CO will be less than 180 ug/m³ or 0.5% of the NAAQS.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] New Facilities: General Reduction Requirements (BACT)

Pursuant to 326 IAC 8-1-6, new facilities (as of January 1, 1980), which the potential to emit 25 tons or more of VOC per year, located anywhere in the in the state, which are not otherwise regulated by other provisions of this rule (326 IAC 8), shall reduce VOC emissions using best available control technology (BACT). The BACT requirements for 236 IAC 2-2 (PSD) are considered equivalent.

D.1.9 Volatile Organic Compounds (VOC) - Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A 127-9642-00036, issued on May 30, 2003 (an amendment to CP 127-2326-00036, issued on February 24, 1992) and 326 IAC 2-2-3 (BACT), the volatile organic compound (VOC) emissions shall be controlled through a scrap management program to eliminate steel scrap with high residual oil content.

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- (b) Pursuant to A 127-9642-00036, issued on May 30, 2003 (an amendment to CP 127-2326-00036, issued on February 24, 1992) and 326 IAC 2-2-3 (BACT), the Permittee shall charge only clean scrap, consistent with the scrap management program.
- (c) Pursuant to A127-9642-00036, issued on May 30, 2003 (an amendment to CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (BACT), the combined VOC emissions from the Melt shop processes (consisting of EAF, LMF, Continuous Caster and natural gas units) shall not exceed 0.15 pounds per ton of steel produced and 82.5 tons per year from the common stack (S-2).

D.1.10 Visible Emissions Limitations (BACT) [326 IAC 2-2-3]

- (a) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), visible emissions from any building opening as a result of EAF operation shall be limited to 3% opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (b) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), visible emissions shall not be allowed (3% opacity) from any roof building opening as a result of the EAF dust handling system operation based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

D.1.11 Visible Emissions Limitations (NSPS) [326 IAC 12] [40 CFR Part 60, Subpart AAa]

Pursuant to 40 CFR 60.272(a), Visible emissions from the EAF baghouse shall not exceed, 3% percent opacity at the common baghouse control device, 6% percent opacity from the melt shop due solely to the operations of the electric arc furnace, and 10% percent opacity from the dust handling system based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

D.1.12 Operational Parameters (PSD) (BACT) [326 IAC 2-2-3]

Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC2-2-3(2), Best Available control Technology), the Permittee shall comply with the revised SO₂, VOC and NO_x emissions from the melt shop by limiting the following throughput:

- (a) The maximum short-term metal production capacity from the melt shop shall not exceed 151 tons per hour, over a period of 24 operating hours rolling average, with compliance demonstrated at the end of each hour; and
- (b) The maximum long-term metal production capacity from the melt shop shall not exceed 1,100,000 tons per 12-consecutive month period with compliance demonstrated at the end of each month.

D.1.13 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the EAF (unit 1), ladle metallurgical facility (unit 2), exhaust duct system and melt shop baghouse (CE-2).

Compliance Determination Requirements

D.1.14 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

- (a) Within a period of one (1) year from the date of the latest valid compliance demonstration with Condition D.1.3 and D.1.10, the Permittee shall perform PM/PM₁₀ testing on the Melt

shop operations consisting of the EAF, LMF, castor and natural gas combustion units, stack (S-2), utilizing methods as approved by the Commissioner, in accordance with Section C - Performance Testing. PM10 includes filterable and condensable PM10. This test shall be repeated annually from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Compliance with the visible emissions limit in Condition D.1.10 using the Continuous Opacity Monitor (COM) at the Melt Shop Baghouse shall serve to satisfy the annual PM/PM-10 testing requirement for Melt Shop Baghouse Stack (S-2), unless violations have occurred during the past 12 month period.

- (b) Within a period of one (1) year from the date of the latest valid compliance demonstration with Condition D.1.4, the Permittee shall perform NO_x testing on the Melt shop operations consisting of the EAF, LMF, castor and natural gas combustion units, stack (S-2), utilizing methods as approved by the Commissioner in accordance with Section C - Performance Testing. This test shall be repeated annually from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (c) Within a period of one (1) year from the date of the latest valid compliance demonstration, with Condition D.1.5 the Permittee shall perform SO₂ testing on the Melt shop operations consisting of the EAF, LMF, castor and natural gas combustion units, stack (S-2), utilizing methods as approved by the Commissioner, in accordance with Section C - Performance Testing. This test shall be repeated annually from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (d) Within a period of one (1) year from the date of the latest valid compliance demonstration with Condition D.1.6 and D.1.7, the Permittee shall perform CO testing on the Melt shop operations consisting of the EAF, LMF, castor and natural gas combustion units, stack (S-2), utilizing methods as approved by the Commissioner in accordance with Section C - Performance Testing. This test shall be repeated annually from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (e) Within a period of one (1) year from the date of the latest valid compliance demonstration with Condition D.1.8, the Permittee shall perform VOC testing on the Melt shop operations consisting of the EAF, LMF, castor and natural gas combustion units; stack (S-2), utilizing methods as approved by the Commissioner in accordance with Section C - Performance Testing. This test shall be repeated annually from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

The Permittee can demonstrate compliance with the melt shop VOC emission limit in Condition D.1.9(c) by calculating 'Total Organic Compounds (TOC)' using 'as carbon' calculation. The Permittee if so desired can subtract the amount of methane observed during the VOC stack test from the TOC to calculate the non-methane VOC emissions to demonstrate compliance with the VOC emissions limit in condition D.1.9 of the permit.

- (f) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992), the testing on the melt shop exhaust to demonstrate compliance with limits contained in the Conditions D.1.3 through D.1.10, the Permittee shall meet the specifications for stack test protocol as specified in the applicable Method. The Permittee can with prior approval from IDEM, OAQ choose to conduct the stack test in

a manner where each test run consists of up to 2 heats (where each heat lasts approximately one (1) hour) in the EAF at the melt shop.

D.1.15 Particulate Control

The melt shop exhaust duct system and baghouse (CE-2) shall be operated at all times when the melt shop is in operation.

D.1.16 CO and VOC Control

The Direct Shell Evacuation System shall be in operation at all times the EAF is in operation in the melting and refining periods to control CO and VOC emissions.

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

D.1.17 Visible Emission Observations and Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR 60.273a]

Pursuant to 326 IAC 3-5 and 40 CFR 60.273a, the Permittee shall in order to demonstrate compliance with Condition D.1.10 and D.1.11:

- (a) shall calibrate, certify, operate, and maintain a continuous monitoring system to measure opacity from the Melt Shop stack S-2 in accordance with 326 IAC 3-5-2 and 3-5-3.
- (b) In the event that a breakdown of a continuous opacity monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous opacity monitor (COM) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup COM shall be brought online within four (4) hours of shutdown of the primary COM, if possible. If this is not possible, visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of one (1) hour beginning four (4) hours after the start of the malfunction or down time.
 - (1) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.
 - (2) Method 9 opacity readings shall be repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.
 - (3) All of the opacity readings during this period shall be reported in the Quarterly deviation and Compliance Monitoring Reports.
- (d) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of the melt shop opacity are performed by a certified visible emission observer as follows:
 - (1) Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period.
 - (2) Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9.

- (3) Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only, only one observation of shop opacity will be required.
- (4) In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.

D.1.18 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the melt shop operations, at least once per shift. when the melt shop operation, is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

D.1.19 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the melt shop when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.20 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units

and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.1.21 Monitoring of Operations [40 CFR 60.274a]

Pursuant to CP 127-2326-00036, issued February 24, 1992 (as amended in A127-9642-00036, issued May 30, 2003) and 40 CFR 60.274a, the Permittee shall comply with the following monitoring requirements:

- (a) Except as provided in paragraph D.1.17(d), the Permittee shall check and record on a once-per-shift basis the furnace static pressure if DEC (Direct-shell Evacuation Control) system is in use, and a furnace static pressure gauge is installed according to paragraph (d) below and either:
 - (1) check and record the control system fan motor amperes and damper positions on a once-per-shift basis;
 - (2) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or
 - (3) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and records damper positions on a once-per-shift basis.

The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ± 10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The IDEM, OAQ, or the U.S. EPA may require the Permittee to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of 40 CFR Part 60, Appendix A..

- (b) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer as specified in Condition D.1.17 (d).
- (c) When the Permittee of the EAF is required to demonstrate compliance with the standard in conditions in D.1.10 and D.1.11, either the control system fan motor amperes and all damper positions or the volumetric flow rate through each separately ducted hood shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the electric arc furnace.
- (d) The Permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in duct work or hoods, flow constrictions caused by dents or accumulated dust in duct work, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.
- (e) Except as provided in Condition D.1.17 (d), the Permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the electric arc furnace to be monitored. The monitoring device may be installed in any appropriate location in the electric arc furnaces or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have

an accuracy of " 5 millimeter of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.

- (f) Except as provided in Condition D.1.17 (d), the pressure in the free space inside the electric arc furnaces shall be determined during the melting and refining period(s) using the monitoring device required under item (d) of this condition. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the electric arc furnaces are operating in a meltdown and refining period.

Record Keeping and Reporting Requirements

D.1.22 Record Keeping Requirements

- (a) Pursuant to A127-16763-00036 and to demonstrate compliance with Conditions D.1.3 through D.1.6 and D.1.9, the Permittee shall maintain a log of information necessary to document compliance with the BACT emission limits of the following:
- (1) The throughput, natural gas usage, CO and opacity emission records for the melt shop.
 - (2) The inspection and maintenance of emission control equipment as set forth in the operation and maintenance program Attachment A.
 - (3) All transactions involved with implementation of the scrap management plan. This plan is included as Attachment C.
 - (4) These records shall be kept for five (5) year period and made available upon request.
- (b) Pursuant to A127-9642-00036 and to demonstrate compliance with Condition D.1.12, the Permittee shall maintain records of the short term production capacity and long term production capacity for 60 months and submit upon request.
- (c) To document compliance with operation condition D.1.17, the Permittee shall maintain records:
- (1) required under 326 IAC 3-5-6 at the source in a manner so that they may be inspected by the IDEM, OAQ, or the U.S. EPA., if so requested or required.
 - (2) of visible emission readings at the melt shop stack and make available upon request to IDEM, OAQ, and the U.S. EPA.
- (d) To document compliance with Condition D.1.18, the Permittee shall maintain records of the total static pressure drop in the baghouse during normal operation once per shift.
- (e) To document compliance with Condition D.1.19, the Permittee shall maintain records of the results of the inspections required under Condition D.1.19.
- (f) Pursuant to 40 CFR 60.276a, records of the measurements required in 40 CFR 60.274a, as also required in condition D.1.21, must be retained for at least 5 years following the date of the measurement.
- (g) All records shall be maintained in accordance with Section C- General Record Keeping Requirements of this permit.

D.1.23 Reporting Requirements [326 IAC 3-5-7] [40 CFR 60.276a]

- (a) Pursuant to A127-16763-00036, the Permittee shall submit a quarterly summary of the records required under D.1.22 (a) within thirty (30) days after the end of the quarter being reported to

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Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015

Compliance Branch and Permits Branch
Office of Air Quality
Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) The Permittee shall submit a quarterly excess emissions report, if applicable, based on the continuous opacity monitor (COM) data, pursuant to 326 IAC 3-5-7. These reports shall be submitted within thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit.

- (c) Pursuant to 40 CFR 60.276a, the Permittee shall comply with the following reporting requirements:

- (1) The Permittee shall submit a semi-annual written report of exceedances of the control device opacity to IDEM, OAQ, and the U.S. EPA.
- (2) Unless the Permittee elects to use the alternate to static pressure monitoring outlined in Condition D.1.21(b), the Permittee shall submit semi-annually any values that exceed furnace static pressure established under 40 CFR 60.274a(g) and values of control system fan motor amperes that exceed 15 percent of the value established under 40 CFR 60.274a(c) or values of flow rates lower than those established under 40 CFR 60.274a(c) to IDEM, OAQ, and the U.S. EPA.
- (3) The Permittee shall furnish to IDEM, OAQ, and the U.S. EPA a written report of the results of the compliance emission test required to determine compliance with conditions D.1.3 through D.1.9. This report shall include the following information:
 - (A) Facility name and address;
 - (B) Plant representative;
 - (C) Make and model of process, control device, and continuous monitoring equipment;
 - (D) Flow diagram of process and emissions capture equipment including other equipment or process (es) ducted to the same control device;
 - (E) Rated (design) capacity of process equipment;
 - (F) The following operating conditions:

- (i) List of charge and tap weights and materials;
 - (ii) Heat times and process log;
 - (iii) Control device operation log; and
 - (iv) Continuous monitor or Reference Method 9 data.
- (G) Test dates and test times;
 - (H) Test company;
 - (I) Test company representative;
 - (J) Test observers from outside agency;
 - (K) Description of test methodology used, including any deviation from standard reference methods;
 - (L) Schematic of sampling location;
 - (M) Number of sampling points;
 - (N) Description of sampling equipment;
 - (O) Listing of sampling equipment calibrations and procedures;
 - (P) Field and Laboratory data sheets;
 - (Q) Description of sample recovery procedures;
 - (R) Sampling equipment leak check results;
 - (S) Description of quality assurance procedures;
 - (T) Description of analytical procedures;
 - (U) Notation of sample blank corrections; and
 - (V) Sample emission calculations.
- (d) The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

Hot Strip Mill Operations with a maximum capacity of 1.16 MM ton per year steel production, comprised of the following:

- (a) One (1) 264.6 MMBtu/hour natural gas fired Reheat Furnace identified as unit 10, constructed in 1992, equipped with low NOx burners and a Selective Catalytic Reduction (SCR) Unit (CE-1), exhausting to Reheat Furnace Stack (S-1).
- (b) One (1) 60-inch Hot Strip Mill consisting of unit 11 (Hot Rolling Mill), unit 12 (Strip Cooling Line) and unit 13 (Coiler), constructed in 1991, having a maximum capacity of 170 tons per hour.

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

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

D.2.1 Particulate Matter (PM/PM10) - Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to CP 127-2326-0003, issued February 24, 1992, (as amended in A127-9642-00036, issued May 30, 2003) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the PM/PM10 (where PM10 includes filterable and condensable components) emissions from the Slab Reheat Furnace shall not exceed 16.3 pounds per MMscf of natural gas burned and 4.2 pounds per hour (18.5 tons per year).
- (b) Pursuant to CP 127-2326-00036 issued February 24, 1992, (as amended in A127-9642-00036, May 30, 2003) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements) the PM and PM-10 from the hot strip mill shall be limited by using recirculated high pressure water descalers and water cooling sprays. Any particulate matter, in solid or liquid form shall be collected in flumes and transported to the scale pit.

D.2.2 Nitrogen Oxides (NOx) Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3(2), Best Available Control Technology (BACT), only natural gas shall be burned in the slab reheat furnace and the heat input shall not exceed 264.6 MMBtu per hour.
- (b) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment of CP 127-2326-00036 issued February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements) the NOx emissions from Slab Reheat Furnace shall be controlled by NOx control technology consisting of low NOx burners and a Selective Catalytic Reduction (SCR) Unit (CE-1).
- (c) NOx emissions shall not exceed 77.06 lbs/MMscf (0.077 lb/ MMBtu) of natural gas burned and 18.88 pounds per hour on a three (3) operating hour average basis except during periods of startup and shutdown.(82.69 tons/year)
- (d) The following shall apply during periods of startup and shutdown:
 - (1) Startup is defined as the duration from the first firing of burners in the Reheat Furnace to the time when the exhaust gas temperature is within the optimum

ranges of the operation of the control device for NOx emissions.

- (2) Shutdown is defined as the duration from first curtailment of fuel input to the Reheat Furnace burners with the intent of full shutdown to the final complete stop of fuel input and complete cessation of combustion in the Reheat Furnace.
- (3) The Reheat Furnace shall be operated in a manner consistent with good air pollution control and work practices to minimize emissions during startup and shutdown by operating in accordance with written procedures developed and maintained by the Permittee, which shall include at a minimum the following measures:
 - (A) Review of operating parameters of the unit during startup, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions;
 - (B) Operate emission control equipment as soon as the Reheat Furnace exhaust gas temperature reaches the lower value of the optimum temperature range for the control equipment. This operation shall continue until the time the Reheat Furnace shutdown sequence is initiated with the intention of shutdown of the unit; and
 - (C) Implementation of inspection and repair procedures for the Reheat Furnace and the emissions control equipment prior to attempting startup to ensure proper operation.

D.2.3 Carbon Monoxide (CO) Best Available Control Technology [326 IAC 2-2-3]

Pursuant to A127-9642-00036 (an amendment of CP 127-2326-00036 issued February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the CO emissions from the Reheat Furnace shall not exceed 40 lb/MMscf of natural gas burned and 8.5 pounds per hour (37.2 tons/year).

D.2.4 Volatile Organic Compounds (VOC) Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP 127-2326-00036 issued February 24, 1992 (as amended in A127-9642-00036) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the VOC emissions from the Reheat Furnace shall not exceed 1.7 lb/MMscf of natural gas burned and 0.4 pounds per hour (1.6 tons/year).

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Reheat Furnace (unit 10) and the SCR unit (CE-1).

Compliance Determination Requirements

D.2.6 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

- (a) Within a period of one (1) year from the date of the latest valid compliance demonstration, the Permittee shall perform PM/PM10 testing on the Reheat Furnace Stack (S-1), utilizing methods as approved by the Commissioner, in accordance with Section C - Performance Testing. PM10 includes filterable and condensible PM10. This test shall be repeated annually from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (b) Within a period of one (1) year from the date of the latest valid compliance demonstration, the Permittee shall perform CO testing on the Reheat Furnace Stack (S-1), utilizing

methods as approved by the Commissioner, in accordance with Section C - Performance Testing. This test shall be repeated annually from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

- (c) Within a period of one (1) year from the date of the latest valid compliance demonstration, the Permittee shall perform VOC testing on the Reheat Furnace Stack (S-1), utilizing methods as approved by the Commissioner, in accordance with Section C - Performance Testing. This test shall be repeated annually from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.2.7 NOx Emissions Control (Best Available Control Technology) [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (BACT), the selective Catalytic Reduction (SCR) unit (CE-1) shall be operated at all times when the Reheat Furnace (unit 10) is in operation.

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

D.2.8 Continuous Emission Monitoring

- (a) Pursuant to A127-9642-00036, issued May 30, 2003, within twelve (12) months of issuance of A127-9642-00036, the Permittee shall install, calibrate, certify, operate and maintain a Continuous Emissions Monitoring System (CEMS) for NOx for the Reheat Furnace stack in accordance with 326 IAC 3-5-2 through 326 IAC 3-5-7.
- (1) The CEMS shall measure NOx emissions rates in pounds per hour to demonstrate compliance with the limitations established in the BACT analysis and set forth in the permit when the reheat furnace is in operation. The Permittee shall measure the amount of natural gas consumed in terms of million cubic feet per hour at the reheat furnace during the operation. To demonstrate compliance with the NOx limits, the source shall take an average of the pounds of NOx per million cubic feet of natural gas used and pounds of NOx per hour over a three (3) operating hour period. The source shall maintain records of the emissions in pounds of NOx per million cubic feet of natural gas and pounds of NOx per hour.
- (2) The Permittee shall determine compliance with Condition D.2.2, using data from the NOx CEMS, the fuel flow meter, and Method 19 calculations.
- (3) The Permittee shall submit to IDEM, OAQ, within ninety (90) days after monitor installation, a complete written Monitoring Plan.
- (4) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.
- (b) The Permittee shall install, calibrate, certify and operate continuous emissions monitors for carbon dioxide or oxygen at each location where nitrogen oxide emissions are monitored.
- (c) The Permittee shall submit the records of excess NOx emissions (defined in 326 IAC 3-5-7 and 40 CFR Part 60.7) from the continuous emissions monitoring system on a quarterly basis. These reports shall be submitted within thirty (30) calendar days following the end of each quarter and in accordance with Section C- General Reporting Requirements of this permit.

D.2.9 NOx Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever the NOx continuous emissions monitoring system is malfunctioning or down for repairs or adjustments, the Permittee shall use the following method to record information related to NOx emissions:

- (a) Monitoring of the SCR operating parameters of the process NOx emissions at the outlet of SCR using the process control NOx analyzer shall be implemented. The Permittee shall record the NOx emissions using the NOx analyzer at least four (4) times per hour until the primary CEMS or backup CEMS is brought online and is functioning properly. The Preventive Maintenance Plan for SCR shall contain troubleshooting contingency and corrective actions for when the readings are outside of the normal range for any one reading during downtime of the NOx CEMS.
- (b) The instrument used for determining the NOx emissions at the outlet shall comply with Section C – Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.2.10 Record Keeping Requirements

- (a) Pursuant to A127-16763-00036, 40 CFR 60.7 and to demonstrate compliance with Conditions D.2.1 through D.2.4, the Permittee shall maintain a log of information necessary to document compliance with the BACT emission limits of the following:
 - (1) The throughput and natural gas usage for the strip mill reheat furnace.
 - (2) The inspection and maintenance of emission control equipment as set forth in the operation and maintenance program, Attachment A.
 - (3) These records shall be kept for five (5) year period and made available upon request to the Office of Air Quality.
- (b) To document compliance with Condition D.2.9, the Permittee shall maintain records of the output of the system, and perform record keeping pursuant to 326 IAC 3-5-6.
- (c) When the NOx CEMs is inoperable, the Permittee shall keep records of the process control NOx analyzer output in order to demonstrate compliance.
- (d) All records shall be maintained in accordance with Section C- General Record Keeping Requirements of this permit.

D.2.11 Reporting Requirements

- (a) The Permittee shall submit a quarterly summary of the records required under D.2.10 (a) within thirty (30) days after the end of the quarter being reported to

Office of Enforcement
Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015

Compliance Branch and Permits Branch
Office of Air Quality
Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) The Permittee shall submit the records of excess NOx emissions (defined in 326 IAC 3-5-7 and 40 CFR Part 60.7) from the continuous emissions monitoring system or process control NOx analyzer when the CEMs is inoperable, on a quarterly basis to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported.
- (c) The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Section D.3 Facility Operation Conditions

Facility Description [326 IAC 2-7-5(15)]: The source is also comprised of the following fugitive dust and material handling processes:

- (a) Roadways and parking lots are paved
- (b) Material Handling
 - (1) EAF slag pit dig out operations are controlled by a canopy hood exhausted to melt shop baghouse (CE-2) through stack S-2, with a COM.
 - (2) Slag and materials, except steel scrap are handled in the melt shop building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-2) and exhaust through stack S-2, with a COM.
 - (3) Slag and materials, exclusive of steel scrap are stored within the enclosed building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-2) and exhaust through stack S-2, with a COM.
 - (4) EAF slag cooling operations are conducted in the enclosed slag cooling area controlled by the melt shop baghouse (CE-2) through stack S-2, with a COM.

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

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

D.3.1 Particulate Matter (PM/PM10) Fugitive Dust Plan Limits Best Available Control Technology (BACT) [326 IAC 2-2-3]

Pursuant to CP-127-2326-00036, issued on February 24, 1992 and 326 IAC 2-2-3 (PSD) (BACT), the Permittee shall implement a fugitive dust plan to limit fugitive dust emissions that includes the following:

- (1) Reduce uncontrolled paved road and parking lot fugitive dust emissions by at least ninety percent (90%).
- (2) Treat plant roads as urban roads and limit the silt to 17 pounds per mile of particulate matter less than 75 microns in diameter.
- (3) EAF slag pit dig out operations, located within the slag handling canopy hood shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (4) Ensure controlled slag processing and storage pile emissions by conducting slag dumping and slag load out operations in an enclosed building exhausted to the melt shop baghouse stack S-2.
- (5) Ensure controlled storage pile emissions by storing excess slag in an enclosed building exhausted to the melt shop baghouse stack S-2.

D.3.2 Particulate Matter (PM/PM10) Best Available Control Technology (BACT) [326 IAC 2-2-3]

Pursuant to CP-127-2326-00036, issued on February 24, 1992, and 326 IAC 2-2-3(2) (PSD) the

skull or steel scrap not mechanically reduced in size shall be torch/cut within an enclosed building using the melt shop baghouse (CE-2) as the control device.

D.3.3 Fugitive Dust Emissions [326 IAC 6-4]

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

D.3.4 Fugitive Dust Particulate Matter (PM/PM10) Emission Limitations [326 IAC 6-5]

Pursuant to A127-9642-00036, issued May 30, 2003 and 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), the fugitive particulate matter emissions shall be controlled according to the plan submitted on December 10, 1991. This plan is included as Attachment B.

Compliance Determination Requirements

D.3.5 Particulate Matter (PM/PM10) Fugitive Dust Control Best Available Control Technology (BACT) [326 IAC 2-2-3(2)]

Pursuant to CP-127-2326-00036, issued on February 24, 1992 and 326 IAC 2-2-3(2) (BACT) Fugitive Dust Control Measures in the fugitive dust plan shall be followed to ensure control of the fugitive emissions at the source.

Section D.4 Facility Operations Conditions

Facility Description [326 IAC 2-7-5(15)]: The source also comprised of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Specifically regulated insignificant activities
 - (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
 - (b) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100°F).
- (2) Other insignificant activities
 - (a) Space heaters, process heaters, or boilers using the following fuels:
 - (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
 - (ii) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
 - (b) Combustion source flame safety purging on startup.
 - (c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
 - (d) The following VOC and HAP storage containers: Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
 - (e) Refractory storage not requiring air pollution control equipment.
 - (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
 - (g) The following equipment related to manufacturing activities not resulting in the emission of HAPS: brazing equipment, cutting torches, soldering equipment, welding equipment.
 - (h) Closed loop heating and cooling systems.
 - (i) Any of the following structural steel and bridge fabrication activities:
 - (A) Cutting 200,000 linear feet or less of one inch (10) plate or equivalent.
 - (B) Using 80 tons or less of welding consumables.
 - (j) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
 - (k) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPS.
 - (l) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.
 - (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
 - (n) Heat exchanger cleaning and repair.
 - (o) Purging of gas lines and vessels that is related to routing maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
 - (p) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia, and sulfur trioxide.
 - (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

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

Section D.4 (Continued)

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

The source also comprised of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (2) Other insignificant activities (continued)
 - (r) Blow down for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
 - (s) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower.
 - (t) Filter or coalesce media change out.
 - (u) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kiloPascals measured at 38 degrees C).
 - (v) A laboratory as defined in 326 IAC 2-7-1(21)(D).
 - (w) A gasoline transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling tanks having a capacity equal to less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.

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

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

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser without remote solvent reservoirs Constructed after July 1, 1990, shall ensure that the following requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch)

measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

- (B) The solvent is agitated; or
 - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.4.3 Volatile organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material requirements for cold cleaning degreasers), on and after May 1, 2001, no person shall operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch)

measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

Record Keeping and Reporting Requirements

D.4.4 Record Keeping Requirements [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8(d) (2) and (e) on or after November 1, 1999 the following record keeping requirements shall be followed:

- (1) The Permittee shall maintain each of the following records for each purchase.
 - (A) The name and address of the solvent supplier.
 - (B) The date of purchase
 - (C) The type of solvent
 - (D) The volume of each unit of solvent.
 - (E) The total volume of the solvent.
 - (F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

- (2) All records required, shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Beta Steel Corporation
Source Address: 6500 South Boundary Road, Portage, IN 46368
Mailing Address: 6500 South Boundary Road, Portage, IN 46368
Part 70 Permit No.: T127-9691-00036

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Beta Steel Corporation
Source Address: 6500 South Boundary Road, Portage, IN 46368
Mailing Address: 6500 South Boundary Road, Portage, IN 46368
Part 70 Permit No.: T127-9691-00036

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - C The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), 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 ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:

Title / Position:

Date:

Beta Steel Corp.
60
Portage, Indiana
00036
Permit Reviewer: Gail McGarrity

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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: Beta Steel Corporation
 Source Address: 6500 South Boundary Road, Portage, IN 46368
 Mailing Address: 6500 South Boundary Road, Portage, IN 46368
 Part 70 Permit No.: T127-9691-00036

Months: _____ to _____ Year:

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

Beta Steel Corp.
59
Portage, Indiana
00036
Permit Reviewer: Gail McGarrity

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

Form Completed By:

Title/Position:

Date:

Phone:

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Beta Steel Corporation
 Source Address: 6500 South Boundary Road, Portage, IN 46368
 Mailing Address: 6500 South Boundary Road, Portage, IN 46368
 Part 70 Permit No.: 127-9691-00036
 Facility: Reheat Furnace, Ladle Drying Station, East & West Ladle Preheat Stations, Ladle Holding Stations and Tundish Drying Station
 Parameter: MMBtu/hr of Natural Gas
 Limit: 264.6 MMBtu/hr, 11.5 MMBtu/hr, 11.5 MMBtu/hr, 11.5 MMBtu/hr, 6.0 MMBtu/hr and 3.5 MMBtu/hr, respectively.

YEAR: _____

Month	Hot Strip Mill Reheat Furnace		Ladle Drying Stations		East Ladle Preheat Station		West Ladle Preheat Station		Ladle Holding Station		Tundish Drying Station	
	Monthly Total (Mcuft)	Daily Maximum (Mcuft)	Monthly Total (Mcuft)	Daily Maximum (Mcuft)	Monthly Total (Mcuft)	Daily Maximum (Mcuft)	Monthly Total (Mcuft)	Daily Maximum (Mcuft)	Monthly Total (Mcuft)	Daily Maximum (Mcuft)	Monthly Total (Mcuft)	Daily Maximum (Mcuft)
Qtr. Total												
YTD Total												

No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Beta Steel Corporation
 Source Address: 6500 South Boundary Road, Portage, IN 46368
 Mailing Address: 6500 South Boundary Road, Portage, IN 46368
 Part 70 Permit No.: 127-9691-00036
 Facility: Electric Arc Furnace, LMF, Continuous Caster and Hot Strip Mill
 Parameter: Tons of Throughput per year
 Limit: 1,100,000 tons per 12-consecutive month period with compliance demonstrated at the end of each month.

YEAR: _____

Month	1 Electric Arc Furnace		1 Ladle Metallurgy Furnace		1 Continuous Caster		1 Hot Strip Mill		Operating Hours	
	Monthly Total (Tons)	Daily Maximum (Tons)	Monthly Total (Mcuft)	Daily Maximum (Mcuft)	Monthly Total (Tons)	Daily Maximum (Tons)	Monthly Total (Tons)	Daily Maximum (Tons)	Melt Shop	Hot Strip Mill
Qtr. Total										
YTD Total										

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**

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name: Beta Steel Corporation
Source Location: 6300 South Boundary Road, Portage, IN 46368
County: Porter County
SIC Code: 3312
Operation Permit No.: T127-9691-00036
Permit Reviewer: Gail McGarrity

On October 25, 2003, the Office of Air Quality (OAQ) had a notice published in the Times in Munster, Indiana, stating Beta Steel Corporation had applied for a Part 70 Operating Permit to operate a Steel Mini Mill. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of sixty (60) days to provide comments on whether or not this permit should be issued as proposed.

This document contains footnotes as part of the text by IDEM, OAQ and also as part of the text by the commentators. The footnotes by the commentators are shown in *italics* whereas those by IDEM, OAQ are shown in the normal text.

Written comments were received from John Hudson of Beta Steel Corporation on December 19, 2003. These comments and IDEM, OAQ responses, including changes to the permit (where language deleted is shown with ~~strikeout~~ and that added is shown in **bold**) are as follows:

General Description by the Commentator

Beta Steel ("Beta") has received the Title V Operating Permit from the Indiana Department of Environmental Management ("IDEM"), Office of Air Quality, which Permit has been issued for Public Notice and Comment. Beta wishes to timely respond to the Permit with the following comments.

Comment 1

Section A.2 (1)3(b) (1): The EAF slag pit out is controlled by a canopy hood exhausted to the melt shop baghouse, not by the slag handling canopy hood.

Response 1

IDEM has revised the emission control device description in Section A.2 (1)3(b) (1) as follows:

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 comprised of the following emission units and pollution control devices:

(3) Fugitive dust and material handling processes

(b) Material Handling

(1) EAF slag pit dig out operations are controlled by ~~the slag handling~~
a canopy hood exhausted to melt shop baghouse (CE-2) through stack S-2 with a COM.

The description has also been revised in Section D.3 description box

Section D.3

This stationary source comprised of the following emission units and pollution control devices:

- (3) Fugitive dust and material handling processes
 - (b) Material Handling
 - (1) EAF slag pit dig out operations are controlled by ~~the slag handling~~ a canopy hood exhausted to melt shop baghouse (CE-2) through stack S-2 with a COM.

Comment 2

Section A.2 (1)3(b): A fourth section should be added, which states: "EAF slag cooling operations are conducted in the enclosed slag cooling area controlled by the melt shop baghouse (CE-2) through stack S-2, with a COM."

Response 2

IDEM has added the requested description to Section A.2 and to the description box in D.3 as follows:

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 comprised of the following emission units and pollution control devices:

- (3) Fugitive dust and material handling processes
 - (b) Material Handling
 - (4) **EAF slag cooling operations are conducted in the enclosed slag cooling area controlled by the melt shop baghouse (CE-2) through stack S-2, with a COM.**

The description has also been revised in Section D.3 description box as follows:

Section D.3

This stationary source comprised of the following emission units and pollution control devices:

- (3) Fugitive dust and material handling processes
 - (b) Material Handling
 - (4) **EAF slag cooling operations are conducted in the enclosed slag cooling area controlled by the melt shop baghouse (CE-2) through stack S-2, with a COM.**

Comment 3

Section A.3(2): Add Section A.3(2)(v), which states: "A gasoline transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment."

Response 3

IDEM has added the requested description to Section A.3 Insignificant Activities as follows:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also comprised of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (2) Other insignificant activities
 - (w) **A gasoline transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.**

The description has also been revised in Section D.4 description box as follows:

Section D.4

This stationary source also comprised of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (2) Other insignificant activities
 - (w) **A gasoline transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.**

Comment 4

Section C.3: Beta requests that the permit ban on open burning be lifted. It is crucial to the steelmaking process for scrap (coils, slabs) to be cut by the process of burning before it is used in the process. As is true in other Indiana permitted facilities and in facilities nationwide, it is common that this burning process be conducted in the scrap yard and not inside. In order for burning to take place inside, Beta must use the slag quenching building, which creates a logistical problem and interrupts the steel making process, and at times poses a safety hazard due to high temperatures in the building. Beta is aware of other facilities in the Port of Indiana that conduct scrap burning outside and is willing to discuss with IDEM reasonable permit conditions that would allow for open burning of scrap to take place.

Response 4

In 326 IAC 4-1-0.5 (6), the definition of open burn means the burning of any materials wherein air contaminants resulting from combustion are emitted directly into the air, without passing through a stack or chimney from an enclosed chamber. Since the scrap steel coils and slabs are cut with a torch (burned) into usable sized pieces and not actually set fire and combusted, the rule does not apply to this activity. Also, the torch cutting (burning) is an activity that is permitted under a Part 70 permit in 326 IAC 2-7 as stated in 326 IAC 4-1-1, therefore this specific activity is exempt from this requirement.

Comment 5

Section C.12: Requires Beta to install all newly mandated monitoring equipment within 90 days of the promulgation of this Permit. This requirement is in conflict with the recent Permit Modification issued by the Office of Air Quality on May 30, 2003, which allows Beta one year from the date of the Modification's issuance to install a CEM on the hot strip mill stack. Beta requests that the timeframe mandated by the Permit Modification be incorporated into this Permit.

Response 5

Draft permit 9691 states in the general condition C.12, that unless otherwise specified in this permit and if required by Section D, in this case condition D.2.8 states the significant amendment specific time frame for installing the CEMS as follows:

C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

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

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

In Condition D.2.8 (a) Continuous Emission Monitoring

(a) Pursuant to A127-9642-00036, issued May 30, 2003, within twelve (12) months of issuance of A127-9642-00036, the Permittee shall install, calibrate, certify, operate and maintain a Continuous Emissions Monitoring System (CEMS) for NO_x for the Reheat Furnace stack in accordance with 326 IAC 3-5-2 through 326 IAC 3-5-7.

Since the continuous emissions monitoring (CEM) requirement is specified in Condition D.2.8(a) as required by the Significant Amendment A127-9642-00036, allowing a one year (12 months) period from the date of issuance of the significant amendment to install NO_x CEM, no change will be made as a result of this comment.

Comment 6

Section C.14(c): Beta contends that it is unreasonable and unduly burdensome to require it to maintain a backup CEMS that could be brought online within two hours in the event of a CEMS malfunction. This would require Beta to purchase and maintain two units, which is economically unfeasible. Beta currently is in the process of pricing CEMS units for installation in the spring of 2004. Initial quotes range from \$90,000 to \$250,000. Beta is financially unable to keep a second CEMS on site. Beta proposes that spare parts would be available through the equipment manufacturer, but that it is unrealistic to assume that the equipment could be replaced or repaired within two hours, even if Beta had a replacement CEMS on site. Beta proposes that a CEMS could be brought online within two business days. In the interim, parametric monitoring would be conducted using Beta's process NO_x analyzer to assure compliance.

Response 6

IDEM agrees with the suggested revisions and has relocated the specific language for continuous monitoring breakdown in Condition C.14 and Section D.2 has been revised as follows:

C.14 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3) (A)]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment **as specified in Section D.**
- ~~(b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.~~
- ~~(c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup CEMS shall be brought online within four (4) hours of shutdown of the primary CEMS, and shall be operated until such time as the primary CEMS is back in operation.~~
- ~~(b) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 40 CFR 60 and Significant Amendment A127-9642-00036.~~
- (b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR 60, 40 CFR 75 or any other performance specification, and are subject to system certification requirements pursuant to 326 IAC 3-5-3 and Significant Amendment A127-9642-00036.**

D.2.9 NOx Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever the NOx continuous emissions monitoring system is malfunctioning or down for repairs or adjustments, the Permittee shall use the following method to record information related to NOx emissions:

- (a) Monitoring of the SCR operating parameters of the process NOx emissions at the outlet of SCR using the process control NOx analyzer shall be implemented. The Permittee shall record the NOx emissions using the NOx analyzer at least four (4) times per hour until the primary CEMS or backup CEMS is brought online and is functioning properly. The Preventive Maintenance Plan for SCR shall contain troubleshooting contingency and corrective actions for when the readings are outside of the normal range for any one reading during downtime of the NOx CEMS.
- (b) The instrument used for determining the NOx emissions at the outlet shall comply with Section C – Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The following Conditions in Section D.2 are renumbered as follows:

D.2.9 10 Record Keeping Requirements

- (a) Pursuant to A127-16763-00036, 40 CFR 60.7 and to demonstrate compliance with Conditions D.2.1 through D.2.4, the Permittee shall maintain a log of information

necessary to document compliance with the BACT emission limits of the following:

- (1) The throughput and natural gas usage for the strip mill reheat furnace.
 - (2) The inspection and maintenance of emission control equipment as set forth in the operation and maintenance program, Attachment A.
 - (3) These records shall be kept for five (5) year period and made available upon request to the Office of Air Quality.
- (b) To document compliance with Condition D.2.9, the Permittee shall maintain records of the output of the system, and perform record keeping pursuant to 326 IAC 3-5-6.
- (c) **When the NOx CEMs is inoperable, the Permittee shall keep records of the process control NOx analyzer output in order to demonstrate compliance.**
- (d) All records shall be maintained in accordance with Section C- General Record Keeping Requirements of this permit.

D.2.10 11 Reporting Requirements

- (a) The Permittee shall submit a quarterly summary of the records required under D.2.10 (a) within thirty (30) days after the end of the quarter being reported to
- Office of Enforcement
Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015
- Compliance Branch and Permits Branch
Office of Air Quality
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100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015
- (b) The Permittee shall submit the records of excess NOx emissions (defined in 326 IAC 3-5-7 and 40 CFR Part 60.7) from the continuous emissions monitoring system **or process control NOx analyzer when the CEMs is inoperable** on a quarterly basis to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported.
- (c) The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Comment 7

Section C.16(c): The preventative maintenance plan requirement for the pH meter should be deleted. It appears that this requirement is misplaced because pH measurements are not required by any Permit condition and this Permit Section primarily deals with pressure gauges.

Response 7

IDEM deleted the language in condition C.16 that referred to a pH meter since no process uses this type of gauge. The condition will be revised and renumbered as follows:

- C.16 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
 - (b) Whenever a condition in this permit requires the measurement of a temperature or emission rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
 - ~~(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.~~
 - ~~(d)~~ (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Comment 8

Section D.1.13: Beta requests that Preventative Maintenance Plans ("PMPs") be required only for steel making equipment that has the potential of affecting emissions and for control equipment. Beta is aware that IDEM has taken a similar approach with other permits, particularly permits that have been appealed. IDEM has reversed the requirement to prepare a PMP for all production equipment in other permits and limited PMPs only to equipment that affects emissions. Therefore, Beta proposes that only the EAF, Metallurgical Ladle Station, exhaust duct system, and melt shop baghouse (CE-2) be required to have a PMP.

Response 8

IDEM agrees. The EAF, LMF, exhaust duct system and the melt shop baghouse require maintenance in order to prevent excess emissions. However, the caster, slag area cooling bay, and four (4) ladles preheat holding stations do not need preventive maintenance to minimize emissions. Condition D.1.13 is revised as follows:

D.1.13 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the EAF (unit 1), ladle metallurgical facility (unit 2), ~~continuous caster (unit 3), Slag Area Cooling Bays (unit 4), ladle preheat holding stations (units 5, 6, 7 and 8), tundish Dryout (unit 9),~~ exhaust duct system and melt shop baghouse (CE-2).

Comment 9

Section D.1.14: In previous Title V Permit draft, testing requirements were limited to an initial compliance test after the issuance of the Permit and, if limits were achieved, another compliance test would not be required for 5 years. Beta submits, especially based upon recent demonstration of compliance (July 2003) by stack tests, that the present testing requirements are unduly excessive and requests that they be modified to be consistent with the previous draft Permit. Beta further points out that the required CEMS on the hot strip mill will allow for

compliance determinations, so that yearly testing is overly burdensome, an unreasonable cost, and provides no additional useful information.

Response 9

The requirement for annual testing is an applicable requirement from the original Construction Permit 127-2326-00036 and Significant Amendment 127-9642-00036. Therefore, to demonstrate compliance with the emission limits in this permit the annual testing will be carried through in the Part 70 permit.

Significant amendment 127-9642-00036, removed the NOx emissions testing requirement from the reheat furnace and is not required in Section D.2 of this permit.

No revision will be made to the condition D.1.14 in the permit as a result of this comment.

Comment 10

Section D1.15: Should read "(CE-2)."

Response 10

IDEM agrees and Condition D.1.15 is revised as follows:

D.1.15 Particulate Control

The melt shop exhaust duct system and baghouse (CE-4 2) shall be operated at all times when the melt shop is in operation.

Comment 11

Section D.1.16: Should read, "The Direct Evacuation System shall be in operation at all times that the EAF is in the melting or refining phases to control CO and VOC emissions."

Response 11

IDEM has revised Condition D.1.16, since the CO and VOC emissions are emitted and controlled during the EAF melting and refining period. The condition has been revised as follows.

D.1.16 CO and VOC Control

The Direct Shell Evacuation System shall be in operation at all times the EAF is in operation in the **melting or refining periods** to control CO and VOC emissions.

Comment 12

Section D.1.17: This section is unclear to Beta. IDEM is aware that Beta has always operated a COM on the Melt Shop stack and that Beta in fact recently installed a new and more efficient COM. Thus, the Permit language is a bit confusing by requiring Beta to now install a COM. Please clarify that a new COM is not being required and that Beta may continue to use its current COM.

Response 12

IDEM has revised Condition D.1.17, since Beta already has a COM installed and submitted a continuous opacity monitor standard operating procedure (SOP) the word installs and requirement for submittal of SOP has been deleted.

Also, a new item (d) is added, because the 40 CFR 60.273(a) Emissions Monitoring was amended on March 2, 1999 to include monitoring of opacity by a certified observer for Electric Arc Furnaces equipped with DEC (Direct-shell Evacuation Control) systems not required to have a static pressure monitoring device. IDEM, OAQ adopted this federal regulation by reference into 326 IAC 12-1 on July 1, 2000.

The condition is revised as follows:

D.1.17 Visible Emission Observations and Continuous Opacity Monitoring [326 IAC 3-5]
[40 CFR 60.273a]

- (a) Pursuant to 326 IAC 3-5 and 40 CFR 60.273a, the Permittee shall do the following in order to demonstrate compliance with Conditions D.1.10 and D.1.11
- (1) ~~The Permittee shall install, calibrate, certify, operate, and maintain a continuous monitoring system to measure opacity from the Melt Shop stack S-2 in accordance with 326 IAC 3-5-2 and 3-5-3.~~
 - (2) ~~The Permittee shall submit to IDEM, OAQ, within (90) days after monitor installation, a written continuous monitoring standard operating procedure (SOP), in accordance with the requirements of 326 IAC 3-5-4.~~
- (b) In the event that a breakdown of a continuous opacity monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous opacity monitor (COM) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup COM shall be brought online within four (4) hours of shutdown of the primary COM, if possible. If this is not possible, visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of one (1) hour beginning four (4) hours after the start of the malfunction or down time.
- (1) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.
 - (2) Method 9 opacity readings shall be repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.
 - (3) All of the opacity readings during this period shall be reported in the Quarterly Deviation and Compliance Monitoring Reports.
- (d) **A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of the shop opacity are performed by a certified visible emission observer as follows:**
- (1) **Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period.**
 - (2) **Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9.**

- (3) Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only, only one observation of shop opacity will be required.**
- (4) In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.**

Comment 13

Section D.1.21: The following changes should be made to reflect the option available for monitoring static pressure in the EAF. As has been the experience of other EAF operations, it is difficult to maintain static pressure monitoring devices due to the environment of the EAF. U.S. EPA worked closely with the Steel Manufacturers' Association ("SMA"), an electric arc furnace trade group, to address the problems with maintaining static pressure monitoring devices as originally required by 40 CFR Part 63 [sic], Subpart AAa. In recognition of these problems and subsequent to the issuance of Beta's original construction permit for the EAF, SMA and U.S. EPA worked together to develop an alternate to monitoring static pressure in the EAF. It is this alternate methodology allowed in Subpart AAa that Beta requests the option to use. Consequently, Beta proposes that the following language be added to the Permit:

"Pursuant to CP 127-2326-00036 (as amended in A127-9642-00036), 40 CFR 60.273a and 40 CFR 60.274a, the Permittee shall comply with the following monitoring requirements:

- (a) The Permittee shall comply with conditions (b) and (c) and conditions (d) or (e) through (g) below:
- (b) When the Permittee is required to demonstrate compliance with the standard in condition D.1.10 and at any other time IDEM, OAQ, or the U.S. EPA may require, that either the control system fan motor amperes and all damper positions or the volumetric flow rate through each separately ducted hood shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the electric arc furnace.
- (c) The Permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in duct work or hoods, flow constrictions caused by dents or accumulated dust in duct work, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.
- (d) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer as follows: Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.
- (e) The Permittee shall check and record on a once-per-shift basis the furnace static pressure

and either:

- (1) Check and record the control system fan motor amperes and damper positions on a once-per-shift basis; or
- (2) Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or
- (3) Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and records damper positions on a once-per-shift basis.

The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ± 10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The IDEM, OAQ, or the U.S. EPA may require the Permittee to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of 40 CFR Part 60, Appendix A..

- (f) The Permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the electric arc furnace to be monitored. The monitoring device may be installed in any appropriate location in the electric arc furnaces or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ± 5 millimeter of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.
- (g) The pressure in the free space inside the electric arc furnaces shall be determined during the melting and refining period(s) using the monitoring device required under item (f) of this condition. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the electric arc furnaces are operating in a meltdown and refining period."

Response 13

IDEM, OAQ, adopted the March 2, 1999 amended federal regulation 40 CFR 60.274(a) Monitoring of Operations by reference into 326 IAC 12-1 on July 1, 2000. Condition D.1.21 has been revised and renumbered as follows:

D.1.21 Monitoring of Operations [40 CFR 60.274a]

Pursuant to CP 127-2326-00036, **issued February 24, 1992** (as amended in A127-9642-00036, issued May 30, 2003) and 40 CFR 60.274a, the Permittee shall comply with the following monitoring requirements:

- (a) **Except as provided in paragraph D.1.17(d),** the Permittee shall check and record on a once-per-shift basis the furnace static pressure **if DEC (Direct-shell Evacuation Control) system is in use, and a furnace static pressure gauge is installed according to paragraph (d) below** and either:
 - (1) Check and record the control system fan motor amperes and damper positions on a once-per-shift basis; or
 - (2) Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or

- (3) Install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and **check and** records damper positions on a once-per-shift basis.

The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ± 10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The IDEM, OAQ, or the U.S. EPA may require the Permittee to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of 40 CFR Part 60, Appendix A..

- (b) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer as specified in Condition D.1.17 (d).**

~~(b)(c)~~ When the Permittee of the EAF is required to demonstrate compliance with the standard in conditions **D.1.10 and D.1.11**, either: the control system fan motor amperes and all damper positions; ~~or~~ the volumetric flow rate through each separately ducted hood; **or the volumetric flow rate at the control device inlet and all damper positions** shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the electric arc furnace.

~~(c)~~ **(d)** The Permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in duct work or hoods, flow constrictions caused by dents or accumulated dust in duct work, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

~~(d)~~ **(e)** **Except as provided in Condition D.1.17 (d)**, the Permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the electric arc furnace to be monitored. The monitoring device may be installed in any appropriate location in the electric arc furnaces or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ± 5 millimeter of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.

~~(e)~~ **(f)** **Except as provided in Condition D.1.17(d)**, the pressure in the free space inside the electric arc furnaces shall be determined during the melting and refining period(s) using the monitoring device required under item (d) of this condition. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the electric arc furnaces are operating in a meltdown and refining period.

Comment 14

Section D.1.23 (b) (2): Should read "Section D.1.21 (d)," not "Section D.1.18 (a)."

Response 14

IDEM, OAQ, adopted the March 2, 1999 amended federal regulation 40 CFR 60.274(a) Monitoring of Operations by reference into 326 IAC 12-1 on July 1, 2000. The Condition D.1.23 (b) (2), which was referred by the commenter as Section D.1.23 (b) (2), read "Section D.1.18 (a)" and should have been changed to Section D.1.21 (d) was Condition D.1.21 (a) in the draft Part 70 permit. All the Condition D1.23 (c) (2) references have been revised to reflect the changes in Condition D.1.21 Monitoring of Operations as follows:

D.1.23 Reporting Requirements [326 IAC 3-5-7] [40 CFR 60.276a]

- (c) Pursuant to 40 CFR 60.276a, the Permittee shall comply with the following reporting requirements:
- (1) The Permittee shall submit a semi-annual written report of exceedances of the control device opacity to IDEM, OAQ, and the U.S. EPA.
 - (2) Unless the Permittee elects to use the alternate to static pressure monitoring outlined in ~~Section~~ **Condition D.1.21(a) (b)**, the Permittee shall submit semi-annually any values that exceed furnace static pressure established under 40 CFR 60.274a(g) and values of control system fan motor amperes that exceed 15 percent of the value established under 40 CFR 60.274a(c) or values of flow rates lower than those established under 40 CFR 60.274a(c) to IDEM, OAQ, and the U.S. EPA.

Comment 15

Section D.1.23 (b) (3): Line three should read "D.1.3 through D.1.9."

Response 15

The reference to Condition D.1.23 (c) (3) has been revised as follows:

D.1.23 Reporting Requirements [326 IAC 3-5-7] [40 CFR 60.276a]

- (c) Pursuant to 40 CFR 60.276a, the Permittee shall comply with the following reporting requirements:
- (3) The Permittee shall furnish to IDEM, OAQ, and the U.S. EPA a written report of the results of the compliance emission test required to determine compliance with conditions D.1.3 ~~and~~ **through** D.1.9. This report shall include the following information:

Comment 16

Section D.2.1: Limits for particulate matter at the Hot Strip Mill were established in the Significant Amendment to CP-127-2326, dated May 30, 2003. In IDEM's Technical Support Document ("TSD") associated with the Significant Modification, IDEM recognized that the use of a SCR to control NOx would adversely impact particulate matter emissions. In the TSD, IDEM further recognized that Beta has the only hot strip mill with a SCR controlling NOx. Since there were no other sources with SCR-controlled hot mills, IDEM elected to set the particulate limitations based on one compliance stack test conducted in November 1999. Based on very limited data afforded by the single compliance test used by IDEM, Beta is unsure that the limit can be reliably met under all operating conditions. Furthermore, since the November 1999 test, Beta has made major changes to the SCR with unknown impact on particulate matter generation mechanisms associated with the SCR operation. Accordingly, Beta reserves the right to request alternate particulate limitations based on the review of additional available data, and, if necessary, additional testing. While Beta is not currently prepared to propose an alternate particulate limitation, such a limitation may be proposed in the future.

Response 16

No change has been requested in this comment. Therefore, Condition D.2.1 has not been revised as a result of this comment.

Comment 17

Section D.2.4: The VOC limitation for the Hot Strip Mill SCR stack was originally set based solely on available emission factors for natural gas consumption available at time of the permit application. At that time, it was believed that the only source of VOC emissions would be the products of combustion from natural gas. However, Beta suspects that other mechanisms may exist that would generate or release VOC emissions that would report to the Hot Strip Mill SCR stack. As noted in the comments on Section D.2.1, above, there are no other hot strip mills with SCRs available for comparison purposes. It is unknown whether the operation of the SCR has an impact on VOC emissions or if changes in the operation of the SCR could impact VOC emissions.

Accordingly, Beta reserves the right to request alternate VOC limitations based on the review of additional available data, and, if necessary, additional testing. While Beta is not currently prepared to propose an alternate VOC limitation, such a limitation may be proposed in the future.

Response 17

No change has been requested in this comment. Therefore, Condition D.2.4 has not been revised as a result of this comment.

Comment 18

Section D.2.5: Beta again questions the requirement of a PMP for equipment that does not affect emissions; here, the Reheat Furnace, Rolling Mill Strip Cooling Line, and Coiler (see Comment No. 8, above). This equipment does not affect emissions and requiring PMPs for it would be overly burdensome. A PMP should be required only for the SCR unit.

Response 18

The Hot Rolling Mill, Strip Cooling Line and coiler do not require maintenance to operate properly and minimize emissions. However, the Reheat furnace and the SCR unit do require preventive maintenance in order to prevent excess NOx emissions. Condition D.2.5 has been revised as follows:

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Reheat Furnace (unit 10), Hot Rolling Mill (unit 11), Strip Cooling Line (unit 12), Coiler (unit 13) and the SCR unit (CE-1).

Comment 19

Section D.2.6 (b): Beta is aware of no rational basis for yearly stack test requirements for NOx and CO for the reheat furnace if, in fact, as required, NOx and CO will be monitored by a CEM. This testing requires Beta to incur additional costs that are irrational, unduly burdensome, and provide no additional useful information.

Response 19

The previous permit drafts have been reviewed and revised by the Office of Air Quality to include all requirements from past permits and modifications. The requirement for annual testing is a condition of the original Construction Permit 127-2326-00036 and Significant Amendment 127-9642-00036. The Significant amendment 127-9642-00036 requires NOx CEMS be installed, calibrated, certified operated and maintained to monitor NOx in the reheat furnace stack. The permit does not require a carbon monoxide CEMS. As a part of the NOx CEM requirement, carbon dioxide or oxygen is monitored at each location where the NOx emissions are monitored. The NOx CEM annual certification replaces the annual NOx stack testing.

The Carbon Monoxide emissions annual testing was carried through from Construction Permit 127-2326-00036 and Significant Amendment 127-9642-00036 to the Part 70 permit.

Condition D.2.6 has not been revised as a result of this comment.

Comment 20

Section D.2.7: In order to make this Section consistent with Section D.2.2(c), the words "except during periods of startup and shutdown as described in D.2.2 (d)" should be added to the end of this Section.

Response 20

The operation of the SCR does not mean that the steady state limitations are applicable. The intent is to operate the SCR to control NOx emissions to the extent possible. When the reheat furnace is started, the SCR can be brought on line to control NOx emissions from the reheat furnace as soon as the SCR is heated up to operating temperature, since it takes time for the SCR to heat up to control NOx emissions. Therefore, the desired change in Condition D.2.7 has not been revised as a result of this comment.

Comment 21

Section D.2.8 (6): Should add the sentence: "These reports shall be submitted within thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C – General Reporting Requirements of this permit."

Response 21

The addition of the language will clarify when the report has to be submitted. Condition D.2.8(c) is deleted and D.2.11(b) of the draft permit have been revised as follows:

D.2.8 Continuous Emission Monitoring

- ~~(c) The Permittee shall submit the records of excess NOx emissions (defined in 326 IAC 3-5-7 and 40 CFR Part 60.7) from the continuous emissions monitoring system on a quarterly basis.~~

D.2.11 Reporting Requirements

- (a) The Permittee shall submit a quarterly summary of the records required under D.2.10 (a) within thirty (30) days after the end of the quarter being reported to

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P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) The Permittee shall submit the records of excess NOx emissions (defined in 326 IAC 3-5-7 and 40 CFR Part 60.7) from the continuous emissions monitoring system **or process control NOx analyzer when the CEMs is inoperable**, on a quarterly basis to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported.
- (c) The report submitted by the Permittee does require the certification by the "responsible

official” as defined by 326 IAC 2-7-1(34).

Comment 22

Section D.2.9 (a) 1: Beta proposes that the efficiency of the SCR based upon ammonia injection consumption and the recording of the damper position using an electronic position recorder be eliminated as record keeping requirements, thus limiting record keeping requirements under this condition to the throughput and the natural gas usage. Extensive testing of the SCR unit performance conducted by Beta has shown that the ammonia consumption is a completely unreliable predictor of SCR efficiency. In fact, the testing has shown that the ammonia addition rate has no impact on SCR efficiency provided that the chemically required minimum threshold needed to react is provided. In other words, once the ammonia addition threshold is reached, additional ammonia has little or no positive impact on SCR efficiency. Construction permit CP-127-2326 required the recording of the damper position at the SCR because the original design of the SCR provided an emergency bypass damper that could be activated to bypass the SCR in the case of extreme overheating of the SCR. This bypass system was subsequently eliminated by installing a refractory brick wall in the bypass tunnel, preventing the bypassing of the SCR under any conditions. Consequently, the position of the damper is now irrelevant. For the reasons stated above, the recordkeeping requirements for ammonia consumption and damper position are unnecessary and should be eliminated.

Response 22

A CEMS will be used to monitor NOx emissions from the SCR. Ammonia injection is not a reliable indicator of the NOx emissions controlled by the SCR. The record of the damper position of an electronic position recorder is no longer an option to demonstrate compliance, because the bypass damper has been replaced by a brick refractory wall and no longer exists. Condition D.2.10 (note because of a condition addition the condition was renumbered D.2.10) has been revised as follows:

D.2.10 Record Keeping Requirements

- (a) Pursuant to A127-16763-00036, 40 CFR 60.7 and to demonstrate compliance with Conditions D.2.1 through D.2.4, the Permittee shall maintain a log of information necessary to document compliance with the BACT emission limits of the following:
- (1) The throughput **and** natural gas usage, ~~efficiency of the SCR based upon ammonia injection consumption, and the record of the damper position of an electronic position recorder~~ for the strip mill reheat furnace.

Comment 23

Section D.2.9 (a) 3: This condition requires maintaining all transactions related to scrap management for the Hot Strip Mill. A scrap management plan was not part of the original construction and operating permits for the Hot Strip Mill (CP-64-1862 and OP 3420-0036 issued June 1, 1990). The scrap management plan was developed for the construction permit CP-127-2326) for the Melt Shop as a BACT method for controlling VOC emissions from the EAF by limiting oil inputs to the furnace. Scrap is used solely as a raw material for the EAF where the scrap is processed into steel. The Hot Strip Mill reheats steel slabs and rolls them into coiled steel. The Hot Strip Mill does not use scrap in its process. There is no reason for a scrap management program in the Hot Strip Mill and one should not be required by the Permit.

Response 23

IDEM agrees and has deleted this condition D.2.10 (a) (3), since the scrap management program is required for the operation of electric arc furnace and not the reheat furnace. Condition D.2.10 (a) has been revised and renumbered as follows:

D.2.10 Record Keeping Requirements

- (a) Pursuant to A127-16763-00036, 40 CFR 60.7 and to demonstrate compliance with Conditions D.2.1 through D.2.4, the Permittee shall maintain a log of information necessary to document compliance with the BACT emission limits of the following:
- ~~(3) All transactions involved with implementation of the scrap management plan.~~
- (4) **(3)** These records shall be kept for five (5) year period and made available upon request.

Comment 24

Section D.3 (b) 4: A line should be added to make the description correct that states: "EAF slag cooling operations are conducted in the enclosed slag cooling area controlled by the melt shop baghouse (CE-2) through stack S-2, with a COM."

Response 24

The description has been added to Section D.3 Fugitive Dust and Material Handling Processes description box as follows:

Facility Description [326 IAC 2-7-5(15)]: The source is also comprised of the following fugitive dust and material handling processes:

- (b) Material Handling
- (4) EAF slag cooling operations are conducted in the enclosed slag cooling area controlled by the melt shop baghouse (CE-2) through stack S-2, with a COM.**

Comment 25

D.4(2): The following statement needs to be added: "A gasoline transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment."

Response 25

The description is added in the Section D.4 Insignificant Activities description box. It is revised as follows:

This stationary source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (2) Other insignificant activities
- (w) A gasoline transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment.**

Written comments were received from Charlotte Read on behalf of Save the Dunes Council on December 24, 2003. These comments and IDEM, OAQ responses, including changes to the permit (where language deleted is shown with ~~strikeout~~ and that added is shown in **bold**) are as follows:

Comment 1

The Save the Dunes Council has maintained a long-term interest in this facility and asks that our comments be considered by OAQ in developing the final Title V permit. We are concerned that the operational limits have been increased through amendments made to the draft permit or through the construction permit.

For example, at D.1.4, Nitrogen Oxide limitations for Best Available Control Technology at the melt shop operations are set at 0.45 pound per ton of steel. Yet the permit limit of 0.35 for similar EAFs of other state and federal permits has been set. Why was a higher limit chosen for BACT for Beta Steel?

Response 1

The 0.45 pound NOx per ton of steel limit contained in condition D.1.4 was established by a previous PSD permit issued on May 30, 2003 (127-9642-00036). This Part 70 Permit merely incorporates that applicable requirement. The Technical Support Document and the OAQ's response to comments regarding this limit explained that it was established after considering the NOx emissions from all the melt shop facilities. Because the melt shop is totally enclosed and all the facilities in the melt shop: Electric Arc Furnace (EAF), Ladle Metallurgical Facility (LMF), caster and natural gas combustion units have NOx emissions that are ducted to one stack, the NOx limit for the melt shop stack in Condition D.1.4 includes the NOx emissions limit for the EAF and all other facilities in the melt shop combined. There are no changes in the permit as a result of this comment.

The Part 70 permit consolidated all the previous air permits for the source into one single operating permit. The previous permit A127-9642-00036, issued on May 30, 2003, may be viewed at <http://www.in.gov/idem/air/permits/Air-Permits-Online>, from here click on "All Permits" and then look up the permits for Beta by Source Name.

Comment 2

The preliminary findings document [public noticed February 5, 2003] for the significant amendment to a construction permit under PSD reveals the potential impact of some changes presumably approved by IDEM.

The Stringent NOx limit for the reheat furnace of 0.014 lb/MMBtu in place at the time of the significant amendment has been relaxed.

SO2 emissions from the meltshop stack changes from 0.047 lb/ton to 0.33 lb/ton steel produced, and 49.87 lb/hr as opposed to 5.0 lb/hr previously.

VOC emissions, controlled through a scrap management program, shall be increased from 73.5 tons/year to 83.2 tons/year.

PM/PM10 limits increased from 5.0 lb/MMscf to 16.3 Mmscf of natural gas burned, and from 4.65 tons/year to 18.5 tons/year.

In response to my comments of March 11 on the draft significant amendment referenced above, I was informed that two sets of limits are being revised: meltshop baghouse exhaust limitations for NOx SO2, and VOC emissions, and the NOx and PM10 limits are being revised for the reheat furnace.

Unfortunately, the draft Title V permit reflects only the new limits, not the extent of the increases approved by the significant amendment approved in May 2003.

Ironically, the technical support document for the above changes generally states that the increase in emissions [NO_x, VOCs, PM/PM₁₀] will not have a significant impact on the area. The technical support for the significant amendment notes that no analysis was performed for VOCs.

Response 2

- (a) The NO_x limit for the reheat furnace was established by a previous PSD permit issued on May 30, 2003 (127-9642-00036). This Part 70 Permit merely incorporates that applicable requirement. The Technical Support Document and the OAQ's response to comments regarding this limit explained that it was established after considering the NO_x BACT limits for reheat furnaces at steel mills. The reheat furnace has an add-on NO_x emissions control device - selective catalytic reduction (SCR) unit to emissions from the reheat furnace. None of the other steel mills have add-on NO_x controls on the reheat furnaces.

Beta submitted an application and requested the NO_x emission limit on the reheat furnace be adjusted to reflect the emission rates, because the non-steady state nature of the reheat furnace, made it impossible to maintain a consistent level of SCR unit performance. This results in a lowered efficiency of control for NO_x emissions. Even after the adjustment of the NO_x emission limit through BACT evaluation, Beta Steel still had most stringent BACT limitation, during the review of Significant Amendment A127-9642-00036. A NO_x continuous emissions monitor is required to be installed to monitor NO_x emissions from the reheat furnace SCR.

- (b) The SO₂ and VOC limits for the melt shop were established by a previous PSD permit issued on May 30, 2003 (127-9642-00036). This Part 70 Permit merely incorporates that applicable requirement. The Technical Support Document and the OAQ's response to comments regarding this limit explained that they were established after considering the SO₂ and VOC BACT limits for from all the melt shop facilities. Because the melt shop is totally enclosed and all the facilities in the melt shop: Electric Arc Furnace (EAF), Ladle Metallurgical Facility (LMF), caster and natural gas combustion units have SO₂ and VOC emissions that are ducted to one stack, the SO₂ and VOC limits for the melt shop stack includes the SO₂ and VOC emission limits for the EAF and all the other facilities in the melt shop combined.
- (c) The PM-10 limit for the reheat furnace was established by a previous PSD permit issued on May 30, 2003 (127-9642-00036). This Part 70 Permit merely incorporates that applicable requirement. The Technical Support Document and the OAQ's response to comments regarding this limit explained that it was established after considering the PM-10 (filterable and condensable) BACT limits for the reheat furnace. The selective catalytic reduction (SCR) unit contributes to the PM/PM-10 emissions from the reheat furnace stack. Therefore, the PM/PM₁₀ emission limit for the reheat furnace stack was adjusted to account for the emissions from the reheat furnace and additional SCR unit emissions.

The Part 70 permit consolidated all the previous air permits for the source into one single operating permit. The previous permit A127-9642-00036, issued on May 30, 2003, may be viewed at <http://www.in.gov/idem/air/permits/Air-Permits-Online>, from here click on "All Permits" and then look up the permits for Beta by Source Name.

- (d) As requested, the following tables list the emissions limits for the melt shop operations and hot strip mill operations from both the Construction permit 127-2326-00036, issued February 24, 1992 and Significant Amendment 127-9642-00036, issued May 30, 2003. At maximum capacity the Permittee can process 132 tons of steel per heat. A heat can last less than an hour. Therefore, the Melt shop has maximum capacity of 151 tons per hour.

Emission Limit Melt shop Operations	CP127-2326-00036, issued February 24, 1992 Melt Shop includes 2 EAFs and all other operations	A127-9642-00036, Issued May 30, 2003 Melt Shop includes 1 EAF and all other operations
PM/PM10 lb/hr	58.8	58.8
PM/PM10 Tons/yr	257	257
SO2 lb/ ton of steel	0.047	0.33
SO2 lb/hr	2.9	49.87
SO2 Ton/yr	26	218.4
CO lb/hr	817	3,578.80
CO Ton/yr	817	3,578.80
VOC lb/ ton of steel	0.13	0.15
VOC lb/hr	16.8	---
VOC Ton/yr	73.5	83.2
NOx lb/ton of steel	0.18	0.45
NOx lb/hr	22.2	68.58
NOx Ton/yr	97.4	300.5

Emission Limit Hot Strip Mill Operations	CP127-2326-00036, issued February 24, 1992 Hot Strip Mill includes 2 Reheat Furnaces and all other operations	A127-9642-00036, Issued May 30, 2003 Hot Strip Mill includes 1 Reheat Furnace and all other operations
PM/PM10 lb/MMscf	5.0	16.3
PM/PM10 lb/hr	1.06	4.2
PM/PM10 Tons/yr	4.65	18.5
CO lb/MMscf	40	40
CO lb/hr	8.5	8.5
CO Ton/yr	37.2	37.2
VOC lb/MMscf	1.7	1.7
VOC lb/hr	0.4	0.4
VOC Ton/yr	1.6	1.6
NOx lb/MMBtu	0.014	0.077
NOx lb/MMscf	14.7	77.06
NOx lb/hr	3.13	18.88*
NOx Ton/yr	13.7	82.34

*on a three (3) operating hour average basis, except during periods of startup and shutdown.

No changes are made to the permit conditions as a result of these comments. .

Comment 3

The compliance requirement seems to be tightened. However, where visible emissions readings will be required, it is unclear what qualifications are required. Also mentioned is compliance with good work practices, without identifying where these are listed or discussed. Also, troubling is continued reliance

only on a scrap management plan for VOCs. We continue to be concerned about the reliance on a scrap management plan as an adequate control for VOC emissions and as a basis for permitting increases in VOC emissions. Installation of a CEM on the stack where VOCs are emitted would be more in keeping with the letter and spirit of enhanced compliance.

Response 3

- (a) The visible emissions readings for opacity limits specified in the Draft Part 70 permit Conditions, D.1.10, D.1.11, D.1.17, and D.3.1(c) are conducted using the New Source Performance Standard (NSPS) 40 CFR Part 60, Appendix A, Method 9. 326 IAC 1-2-62 defines a "qualified observer" as any person who has successfully completed a state or U.S. EPA approved visible emissions evaluation course and is currently certified as such. The qualifications and testing procedures for the visible emissions evaluation course for Method 9 can be found in 40 CFR 60, Appendix A, Method 9, Section 3, Qualifications and Testing, paragraphs 3.1 and 3.2.

To clarify that all opacity observations are to be conducted using Method 9, Condition D.3.1(3) in the Draft Part 70 has been changed to include the same requirement of visible emissions readings based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9) as the other opacity limit Conditions D.1.10, D.1.11 and D.1.17.

D.3.1 Particulate Matter (PM/PM10) Fugitive Dust Plan Limits Best Available Control Technology (BACT) [326 IAC 2-2-3]

Pursuant to CP-127-2326-00036, issued on February 24, 1992 and 326 IAC 2-2-3 (PSD) (BACT), the Permittee shall implement a fugitive dust plan to limit fugitive dust emissions that includes the following:

- (3) EAF slag pit dig out operations, located within the slag handling canopy hood shall not exceed three percent (3%) opacity **based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).**
- (b) Work practice standards are tasks commonly done industry wide for the maximum degree of reduction of each pollutant for the particular process or equipment. According to 326 IAC 1-2-6 Best Available Control Technology, if it is determined that a technological or economic limitation make the measuring methods of an emissions standard for a particular process or equipment is not feasible, a design, equipment, work practice standard, operational standard, or combination thereof, may be prescribed instead to satisfy the requirements for the application of best available control technology (BACT). Such standard shall to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results. No changes in the conditions of this permit as a result of this comment.
- (c) VOC concerns
- (1) The top down best available control technologies (BACT) for VOC emissions from EAFs across the country are a scrap management plan which specifies what grades of scrap steel are used in the manufacturing process and the Direct-shell Evacuation Control on the furnace. This concern was discussed at length in the Significant Amendment 127-9642-00036 TSD pages 13 through 18. A copy of the scrap management plan has been added to the hard copy of the permit as Attachment C.
- (2) This source is required to stack test annually for VOC emissions. The annual testing requirement is an applicable requirement from the original Construction Permit 127-2326-00036 and Significant Amendment 127-9642-00036. Therefore, to demonstrate compliance with the VOC emission limits in this permit the annual testing requirement will be carried

through in the Part 70 permit. No change will be made in the permit as result of this comment.

Comment 4

We are concerned that Beta Steel was referred to the Office of Enforcement for emissions of SO₂ and NO_x in excess of the allowable limits on January 3, 2003. The technical support document for the Title V permit notes that Beta's meltshop baghouse stack (S-2) is not in compliance with the BACT SO₂ limits. There was no mention of the NO_x emissions problems identified along with SO₂ exceedances or whether they were resolved solved either by correcting problems or allowing NO_x emissions to increase.

Response 4

The referral letter dated January 3, 2003, regarding the NO_x and SO₂ exceedances was based on the results of the stack tests conducted on June 24, 2002. The source again conducted stack tests in July of 2003. As seen below, the melt shop (EAF bag house stack) tested in compliance for PM/PM₁₀, NO_x, SO₂, CO and VOC limits in the Significant Amendment 127-9642-00036.

At the time the Part 70 draft permit was submitted for public notice the stack test results from July 2003, had not been reviewed and verified by IDEM staff. The Beta Steel test results from 2003 for the EAF Bag house have since been reviewed and verified. The test results are as follows:

EAF Bag house Stack S-2

July 29-30, 2003 In compliance for PM/PM₁₀, NO_x, SO₂, CO and VOC

Comment 5

We realize that even a relatively simple Title V permit such as this one cannot provide a complete history of the previous permits and amendments that explain changes primarily increases in permit limits, not due to major expansion of the facility.

However, a tabular representation of at least the annual emission limits by source would be helpful to concerned citizens. As you may be aware, citizens of Ogden Dunes, whose complaints about air pollutants have increased significantly this year, live relatively close to Beta Steel and numerous other sources whose Title V permits are now out for comments.

Being able to identify and track when increases in allowable emissions were approved would be helpful to citizens and the agency trying to determine the source or sources of are pollution complaints.

Response 5

The tables in Response 2 list the limits for melt shop and hot strip mill from the original construction permit CP127-2326-00036 and the Significant Amendment A127-9642-00036. If Beta Steel requests a permit change in limits or constructs equipment an application will be submitted and the information reviewed as a modification of the source. The modification language and technical support document will be incorporated into the Part 70 operating permit T127-9691-00036, thereby creating one document which includes all changes in limits and or equipment as a reference for concerned citizens.

Written comments were received from Stephen A. Loeschner on December 24, 2003. These comments and IDEM, OAQ responses, including changes to the permit (where language deleted is shown with ~~strikeout~~ and that added is shown in **bold**) are as follows:

This is comment on a 326 IAC 2-7 permit draft for Beta Steel Corp. ("Beta") to operate an existing steel mill in Porter County, Indiana having an electric arc furnace ("EAF") capable of 151-ton per hour ("tph") production and related fossil fuel fired equipment described in Indiana Department of Environmental Management ("DEM") draft document package 127-9691-00036 ("9691").¹

Comment 1

Unlimited pollution

The 9691 draft (and foundation permits on which it is based) is patently illegal in that it fails to clearly specify a maximum annual emission of mixed nitrogen oxides expressed as a nitrogen dioxide equivalent ("NO_x") nor any means of limiting it to a reasonable value. To support that statement, it is only necessary to show one unlimited circumstance in order to demonstrate that the entire facility emission is unlimited. Defects are found in:

NO_x emissions shall not exceed 77.06 lbs/MMscf (0.077 lb/ MMBtu) of natural gas burned and 18.88 pounds per hour on a three (3) operating hour average basis except during periods of startup and shutdown (82.34 tons/year).

[sic] 9691 Condition D.2.2(c).

The parenthetical 82.34 tons per year ("tpy") is sufficiently distant from "shall not exceed" as to not be an enforceable annual emission limitation. Text must be amended such that the annual NO_x emission from this emission unit shall not exceed 82.34 tpy. It must be made clear that this limit includes, not excludes, the startup and shutdown emissions. Quarterly reporting of monthly aggregation of the emission with summation of the previous 11 months emission must be added to show that the annual limitation is not being exceeded.

As 82.34 tpy NO_x was exposed to lay persons who may interpret it as a limit, it must not be amended upward as a function that 18.88 pounds per hour for 8,760 hours per year is 82.69 tpy.

Response 1

- (a) The NO_x emissions limits in Condition D.2.2 for the reheat furnace are expressed as: one, a unit of the heat input of the furnace 77.06 lb/MMscf (0.077 lb/MMBtu), since NO_x formation depends on the heat generated in the furnace, two, a short term limit of 18.88 lb/hour on a three (3) hour operating average basis (for stack testing) and lastly a limit of 82.34 tons per year.
- (b) These limits are based on best available control technology (BACT) review for the Significant Amendment A127-9642-00036 for Beta Steel. In accordance with EPA guidance BACT limitations are primarily short term limits. As stated in the Addendum for A127-9642-00036 page 4, Response 1, paragraph 2, "**BACT emission limits** or conditions **must be met on continual basis at all levels of operation** (eg., limits written in pounds per MMBtu or percent reduction achieved), demonstrate protection of short term ambient standards (limits written in

¹ See <ftp://ftp2.ai.org/pub/idem/oam/9691d.pdf> as published on or about 27 October 2003, incorporated in its entirety herein by reference.

pounds per hour) and **be enforceable as a practical matter** (contain appropriate averaging times, **compliance verification procedures and record keeping requirements**)." It further stated that "...the permit must... specify a reasonable average time consistent with established reference methods, contain reference methods for determining compliance and **provide for adequate reporting and record keeping so that the permitting agency can determine the compliance status of the source.**"

- (c) Again, as stated in the Addendum for A127-9642-00036 page 4, Response 1, paragraph 4, "The particular circumstances of some individual sources make it difficult to state operating parameters for control equipment limits in a manner that is easily enforceable as practical matter. Therefore, there are two exceptions to the absolute prohibition on using blanket emission limits to restrict potential to emit. If the permitting agency determines that setting operating parameters for control equipment is infeasible in a particular situation, a federally **enforceable permit containing short term limits** (eg., lbs per hour) would be sufficient to limit the potential to emit, provided that such limits reflect the operation of the control equipment, and **the permit includes requirements to install, maintain, and operate a continuous emission monitoring (CEM) system and to retain CEM data**, and specifies that CEM data may be used to determine compliance with the emission limit." In this case, the NOx limit for the reheat furnace.
- (d) Condition D.2.8, requires a continuous emission monitoring system be installed, certified, calibrated and maintained to monitor NOx emissions from the reheat furnace stack. Requiring the NOx CEMs also addresses the concern of recording and reporting NOx emissions on a regular basis.
- (e) The NOx limit of 82.34 tons per year is not an enforceable emissions limitation in the CP127-2326-0036 and Significant Amendment A127-9642-00036. It is for informational purposes only. Compliance with the short term emission limitation in this permit ensures that Beta Steel does not cause or contribute to the deterioration of the National Ambient Air Quality Standards (NAAQS) and complies with the BACT determination. The tons per year number in the condition is revised from 82.34 tons per year to 82.69 tons per year Condition D.2.2(c) has been revised as follows:

D.2.2 Nitrogen Oxides (NOx) Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC2-2-3(2), Best Available Control Technology (BACT), only natural gas shall be burned in the slab reheat furnace and the
- (b) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment of CP 127-2326-00036 issued February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements) the NOx emissions from Slab Reheat Furnace shall be controlled by NOx control technology consisting of low NOx burners and a Selective Catalytic Reduction (SCR) Unit (CE-1).
- (c) NOx emissions shall not exceed 77.06 lbs/MMscf (0.077 lb/ MMBtu) of natural gas burned and 18.88 pounds per hour on a three (3) operating hour average basis except during periods of startup and shutdown (~~82.34~~ **82.69** tons/year).

Comment 2

Rounding escalation

The 9691 Condition D.2.2(c) 77 pounds NO_x per billion Btu limit must be stated as 77.00 pounds

NO_x per billion Btu.²

Limit arbitrage

Text must be amended to make the 9691 Condition D.2.2(c) 77.06 pounds NO_x per million standard cubic feet ("scf") of fuel gas and 77 pounds NO_x per billion Btu of fuel limits apply *simultaneously*.

I.e. a recorded 76.71-pound NO_x per million scf fuel emission (less than the 77.06-pound NO_x per million scf limit) while using a fuel having 996.0 Btu per scf shall be a violation as the resulting 77.02-pound NO_x per billion Btu emission exceeds the 77-pound NO_x per billion Btu limit.

And a recorded 76.98-pound NO_x per billion Btu emission (less than the 77-pound NO_x per billion Btu limit) while using a fuel having 1,017 Btu per scf shall be a violation as the resulting 78.29-pound NO_x per million scf emission exceeds the 77.06-pound NO_x per million scf limit.

Response 2

The single digit significance is irrelevant in regards to a number that is a limit. The definition of a limit is a boundary, especially one that cannot or should not be exceeded. A limit is also defined as a maximum amount or the largest quantity as allowed, in this case a NO_x limit expressed in pounds per MMscf.

The TSD for A127-9642-00036 has stated the NO_x limit for the reheat furnace as 77.06 pounds per MMBtu (MMBtu is heat input rating for the furnace), 0.077 pounds per MMscf (MMscf, which is natural gas usage rate) and 18.88 pounds per hour based on a three (3) operating hour average. The SCR and reheat furnace do not operate at a steady state, so the pound per hour limit is based on a three (3) operating hour average to reflect the actual operation of the reheat furnace and NO_x emissions generated. These limits are based on the use of SCR and low NO_x burners as BACT.

The limitation applicable to the process is 77.06 pounds of NO_x per million cubic feet of natural gas burned. There will be no change in the permit as a result of these comments.

Comment 3

Fuel Btu content

The "shall not exceed 264.0 million Btu per hour" 9691 Condition D.2.2 (a) is meaningless as there is no corresponding compliance requirement. Beta must be compelled to demonstrate how that limitation is adhered to. As there would typically be a fuel flow rate limitation based on scf per hour that had no fixed relationship to Btu content, if such is used for compliance, then a heat content of at least 1,051 Btu per scf must be assumed³ and at least once per year, Beta must be obligated to cause a sustained maximum fuel flow rate, to measure it with at least 4-digit resolution, and to see that it does not exceed

² The U.S. Environmental Protection Agency found rounding escalation to be a clear and present threat and they acted affirmatively. See 67 FR 78203, 78205 (23 December 2002) III: 'State laws ... may allow rounding ... so that the effective limit (in consideration of rounding results) would be 77.4 pounds NO_x per million Btu, not 77.00 pounds NO_x per million Btu.' The response to comment 1 in re Jupiter Aluminum (See Addendum to the 089-17117-00201 Technical Support Document ("TSD") p. 2 <ftp://ftp2.ai.org/pub/idem/oam/17411f.pdf> as published on or about 10 September 2003, incorporated in its entirety herein by reference) that rounding inflation cannot happen in Indiana is of no comfort as there was no IC or IAC citation of rounding law or rule. Thus there is the presumption that the polluter will argue that the liberty of rounding in support of greater license to dump nitrogen dioxide, a 40 CFR 355 extremely hazardous substance, into the public air does belong to the polluter. Further, as the 77.06 pounds NO_x per million scf fuel limit was stated to 4 significant digits, the pounds NO_x per billion Btu limit must also be so stated.

³ This is being generous to Beta. See 40 CFR 72.2 Natural gas (July 2003), 1,100 Btu per scf. See 66 FR 28564, 28578-79, 1,051 Btu per scf. As the 264.0 million Btu per hour is a "shall not exceed," and as Beta likely cannot effectively prevent fuel having above average heat content from being supplied, Beta shall not be entitled to an average Btu factor.

264.0 E6 / 1,051 = 251.2 thousand scf per hour. The 9691 Condition D.2.8 (a)(1) text misses the mark as it contains no numeric flow rate limit and thus no means for determining pass/fail.

Response 3

According to AP- 42 Chapter 1.4 natural gas is considered a relatively clean burning fuel that is stable with little variation from the natural gas pipelines throughout the country. The natural gas is processed with consistency by known vendors, before it sent through the pipeline. The natural gas usage in the reheat furnace can be used to calculate the emissions generated by the reheat furnace using AP-42 emission factors. The USEPA classified the emission factors as excellent. The natural gas usage can be used to determine compliance with Conditions D.2.2 (a) and D.2.8 (a) (1).

There will be no change in the permit as a result of this comment.

Comment 4

Evasion of federal enforceability of fuel gas sulfur content and
consequent absence of sulfur dioxide Best Available
Control Technology emission limit and enforceability

Apparently existing Beta permits do not contain an *individual* 42 USC 7479(3), 40 CFR 51.166(b)(12), 326 IAC 2-2-1(h), et al. Best Available Control Technology (“BACT” a clever legal term wherein best does not mean best) sulfur dioxide (“SO₂”) limit for the 9691 Condition D.2(a) emission unit—clear error. As there is no definition within 9691 for natural gas, and as at the time of the initial permitting of the unit, the total sulfur permitted in similar fuels by competent permitting authorities was 2.00 grains (or less) per 100 scf, DEM must place into the 9691 Condition D.2 permit text substantially compliant with the following:

SO₂ BACT for gas fired units shall be an emission limitation of 6.05 pounds SO₂ per billion Btu⁴ controlled by fuel specification. The fuel shall be 40 CFR 72.2 natural gas (July 2003) *and* it shall have a total sulfur content that does not exceed 2.00 grains per 100 scf.

To comply with this permit requirement, Beta shall submit to DEM within 30 days of their creation each of the documents needed to show conformance with that fuel definition by the specified regimen in 40 CFR 75 Appendix D 2.3.1 (July 2003). Each submission shall immediately become a public record. This will limit the annual emission of SO₂ from this emission unit to less than 7.01 tons per year.⁵

Response 4

IDEM cannot create new applicable requirements for equipment in a Part 70 operating permit. Only when equipment is modified can new requirements be applied.

AP-42 Chapter 1.4 considered natural gas fuel to be a relatively clean-burning fuel. The AP-42 emission factor for SO₂ from natural gas combustion is 0.6 pounds per MMscf. The USEPA classified the AP-42 emission factor as excellent. This is sufficient to be relied upon, thus there is no need to require Beta Steel

4 This is a comfort margin, as it allows for sulfur in ambient air and also for gases compliant with 40 CFR 72.2 natural gas (July 2003) under the 70 % methane option that may be less than the 950 minimum Btu per standard cubic foot option. 2.00 grains total sulfur per 100 scf at 950 Btu per scf is less than 6.016 pounds SO₂ per billion Btu.

5 Under no circumstance should Beta be permitted to use the bare 40 CFR 72.2 natural gas (July 2003) definition which would result in a ten times greater pollution permission.

and other sources in Indiana to test the composition of the natural gas they use.

There is no change in the permit as result of this comment.

Comment 5 **SO₂ BACT permit reopening**

In re the 9691 Condition D.1.5(b) matter, unless Beta presents compelling proof that 40 CFR 72.2 pipeline natural gas (July 2003) is unavailable, then DEM must place into the 9691 Condition D.2 permit text substantially compliant with the following:

SO₂ BACT for gas fired units shall be an emission limitation of 1.54 pounds SO₂ per billion Btu⁶ controlled by fuel specification. The fuel shall be 40 CFR 72.2 pipeline natural gas (July 2003). To comply with this permit requirement, Beta shall submit to DEM within 30 days of their creation each of the documents needed to show conformance with that fuel definition by the specified regimen in 40 CFR 75 Appendix D 2.3.1 (July 2003). Each submission shall immediately become a public record. This will limit the annual emission of SO₂ from this emission unit to less than 1.79 tons per year.⁷

Response 5

The SO₂ emissions from the reheat furnace have not changed. IDEM cannot create new requirements for equipment in a Part 70 operating permit. Only when equipment is modified can new requirements be applied.

The Comments concerning the natural gas fuel definition and emission factors are addressed in the IDEM Response 4.

Comment 6 **Carbon monoxide compliance 1**

It is simple insanity to purport that the 9691 Condition D.1.14(d) annual test can in any way show compliance on a more or less continuous basis with the Condition D.1.6(b) 817-pound per hour (averaging time unspecified, 1 hour must be presumed) and 3,578.8-tpy carbon monoxide ("CO") limits.

Nothing less than a CO continuous emission monitoring system ("CEM") can protect those limits, and such a CEM must be required within the 9691 permit D.1 section. I trust that

6 This is a comfort margin, as it allows for sulfur in ambient air and also for gases compliant with 40 CFR 72.2 pipeline natural gas (July 2003) under the 70 % methane option that may be less than the 950 minimum Btu per standard cubic foot option. 0.5 grains total sulfur per 100 scf at 950 Btu per scf is less than 1.504 pounds SO₂ per billion Btu.

7 Under no circumstance should Beta be permitted to use the bare 40 CFR 72.2 natural gas (July 2003) definition which would result in a ten times greater pollution permission.

DEM will adhere to its own writing (footnotes omitted):⁸

The requirements to install Continuous Emissions Monitoring Systems stems from the long-standing policy of U.S. EPA as described in New Source Review, Workshop Manual¹ (Draft) (NSR Manual). This document is the guiding force for implementing the PSD program and review issues, and is held in high esteem by Environmental Appeals Board (EAB) of U.S. EPA, the appellate authority for the PSD approvals issued by U.S. EPA and the delegated state agencies. The EAB has stated in a decision for Metcalf Energy Center², that "In 1990, EPA issued draft guidance for permitting authorities to use in, among other things, analyzing PSD requirements. See U.S. EPA, Office of Air Quality Planning & Standards, *New Source Review Workshop Manual* (draft Oct. 1990) ("*NSR Manual*"). Although it is not accorded the same weight as a binding Agency regulation, the NSR Manual **has been considered by this Board to be a statement of the Agency's thinking on certain PSD issues**. See, e.g., *In re Tondu Energy Co.*, PSD Appeal Nos. 00-05 & 00-07, slip op. at 13 n.13 (EAB Mar. 28, 2001), 10 E.A.D. ____ [emphasis added]."

In the NSR Manual³ on page B.56 it is stated that "**BACT emission limits or conditions must be met on a continual basis at all levels of operation** (e.g., limits written in pounds/MMbtu or percent reduction achieved), demonstrate protection of short term ambient standards (limits written in pounds/hour) and **be enforceable as a practical matter** (contain appropriate averaging times, **compliance verification procedures and record keeping requirements**) [emphasis added]." It is further stated that "...the permit must.. specify a reasonable averaging time consistent with established reference methods, contain reference methods for determining compliance, and **provide for adequate reporting and record-keeping so that the permitting agency can determine the compliance status of the source** [emphasis added]."

On page H.6 of the NSR Manual in the chapter 'Elements of an Effective Permit' it is stated that "The permit should state **how compliance with each limitation will be determined**, and include, but is not limited to, the test method(s) approved for demonstrating compliance. These permit compliance conditions must be **very clear and enforceable as a practical matter** (see Appendix C)." In addition in table H.2 on page H.10 it is stated that "Continual and continuous **emissions performance monitoring** and recordkeeping (direct and/or surrogate) should be specified where feasible [emphasis in original]. "Further on page c.4 in Appendix C of the same manual it is stated that "**Emissions limits should reflect operation of the control equipment**, be short term, and, where feasible, the **permit should require continuous emissions monitor**."

The above is less than half the subject text.

With that DEM argument as response to Beta's skilled Ice, Miller counsel's comment, Beta elected to not pursue the appeal of a CEM requirement for 82 tpy more or less of NO_x. Comes now the same permitting agency in the same year with 3,578 tpy more or less of CO and DEM proposes no CEM for CO. That 40:1 hypocrisy must be terminated, and the 9691 permit must require CO CEM within 90 days of permit effectiveness.

IDEM must not hold up NO_x as a golden calf. And DEM must not allege that the Beta 9691 Condition D.1 CO is uncontrolled, and thus not meritorious of a CEM. For that CO is controlled in three respects. 9691 Condition D.1.6(a) provides a structure for causing oxidation to carbon dioxide; it provides minimum quantity of air for that purpose, and it specifies that the effluent pass through the fabric filtration pollution control equipment (baghouse). Obviously that baghouse is larger and more expensive as a result of providing for the increased volume mandated by the CO pollution control requirements.

⁸ See Addendum to the 127-9642-00036 Technical Support Document Response to Comment 1, p. 4 - 6 <ftp://ftp2.ai.org/pub/idem/oam/9642f.pdf> ("9642") as published on or about 30 May 2003, incorporated in its entirety herein by reference.

Response 6

During a stack test, the EAF is operated at a level greater than 95% of the maximum production rate. Since operating at 95% greater than production rate is the worst case for CO emission creation, it assures compliance with the limitations during normal production operations.

This permit contains a requirement for annual emissions testing for CO emissions. The production limit of 1,100,000 tons per year also ensures compliance with the CO limit. The installation of a continuous emission monitor (CEM) for CO is not a practical course of action and is not economical, since Beta is able to demonstrate compliance with the CO limit with the requirements already in place.

The Direct-shell Evacuation is an integral part of the Electric Arc Furnace (EAF) operation and does not cause variations in the CO control efficiency. The higher flow rate does not significantly impact CO emissions.

There will be no changes to the permit as a result of these comments.

Comment 7

SO₂ CEM

With the above DEM argument as response to Beta's skilled Ice, Miller counsel's comment, Beta elected to not pursue the appeal of a CEM requirement for 82 tpy more or less of NO_x. Comes now the same permitting agency in the same year with 218 tpy more or less of SO₂ and DEM proposes no CEM for SO₂. That 5:2 hypocrisy must be terminated, and the 9691 permit must require SO₂ CEM within 90 days.

It is simple insanity to purport that the 9691 Condition D.1.14(c) annual test can in any way show compliance with the Condition D.1.5(a) 49.83 pounds per hour⁹ (averaging time unspecified, 1 hour must be presumed) and 181.5 tpy¹⁰ SO₂ limits. Nothing less than SO₂ CEM is required.

Response 7

During a stack test, the EAF is operated at a level greater than 95% of the maximum production rate. Since operating at 95% greater than production rate is the worst case for SO₂ emission creation, it assures compliance with the limitations during normal production operations.

This permit contains a requirement for annual emissions testing of SO₂. The production limit of 1,100,000 tons per year also insures compliance with the SO₂ limit. The installation of a continuous emission monitor (CEM) for SO₂ is not a practical course of action and is not economical, since Beta is able to demonstrate compliance with the SO₂ limit with the requirements already in place. Therefore, no changes will be made to the permit as a result of these comments.

Comment 8

SO₂ Doublespeak

With extensive response to comment 3 by Beta to 9642 draft in the Addendum to the 9642 TSD (p. 10-12), DEM upheld its (B)(4) conclusion:

⁹ 151 x 0.33 is 49.83, not 49.87.

¹⁰ 1,100,000 x 0.33 / 2,000 is 181.5, not 218.4.

0.33 lb/ton. The stack test results indicate that the meltshop can comply with the proposed emission limitation.

P. 13 9642 TSD circa 30 May 2003

Now 9691 has draft text:

The IDEM has information that indicates that the Permittee is not in compliance with this applicable requirement. The OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-2-3 (BACT) SO₂ emission limit and a schedule for achieving compliance with such requirements.

9691 Condition D.1.5 (b) circa 27 October 2003

It seems that either DEM was technically incompetent circa 30 May 2003 or that it has no intention whatsoever of pursuing an enforcement action to inspire Beta to replicate their prior lower SO₂ performance (or both). As there is no control on the sulfur content of charge iron constituents, charge flux constituents, or charge carbon constituents, the People are owed SO₂ CEM such that they might see just what Beta is dumping on them with the impunity granted by DEM.

Response 8

At the time the draft permit was submitted for public notice, the results of the stack test performed in July 2003 had not been reviewed and verified by IDEM staff. The results of the test show Beta steel is in compliance with the melt shop SO₂ limit of 0.33 lb per ton of steel produced. Condition D.1.5 (b) will be deleted. The draft permit is changed as follows:

D.1.5 Sulfur Dioxide (SO₂) - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), the SO₂ emissions from the melt shop stack (S-2) (exhausting EAF, LMF, Caster and natural gas combustion units) shall not exceed 0.33 pounds per ton of steel produced and 49.87 pounds per hour (218.4 tons/year) from the baghouse stack.

~~(b) The IDEM has information that indicates that the Permittee is not in compliance with this applicable requirement. The OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-2-3 (BACT) SO₂ emission limit and a schedule for achieving compliance with such requirements.~~

The stack test results for the EAF baghouse are as follows:

EAF Bag house Stack S-2

July 29-30, 2003 In compliance for PM/PM10, NOx, SO₂, CO and VOC

During the review of the permit 127-9642-00036, issued May 30, 2003, the melt shop SO₂ emission limit was increased to be consistent with subsequent BACT determinations for similar melt shops. OAQ's review of melt shop emission calculation, BACT analysis, and melt shop emission limits established in other state and federal permits supported an adjustment of the SO₂ emission limit from 0.047 lb/ton to 0.33 lb/ton. The stack test results above demonstrate that the melt shop can comply with the SO₂

emission limit of 0.33 lb/ton.

Comment 9

Carbon monoxide compliance 2

If the 9691 Condition D.2.2(c) 77.06 pounds NO_x per million scf of fuel gas and 77 pounds NO_x per billion Btu were equivalent, the fuel gas would have 999.2 Btu per scf. Pursuant to A127-9642-00036 (an amendment of CP 127-2326-00036 issued February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the CO emissions from the Reheat Furnace shall not exceed 40 lb/MMscf of natural gas burned and 8.5 pounds per hour (37.2 tons/year).

9691 Condition D.2.3

If the unit is operated at 264.0 million Btu per hour and the 9691 Condition D.2.3 40 pounds CO per million scf of fuel gas and 8.5 pounds CO per hour were equivalent, the fuel gas would have 804.9 Btu per scf (and the emission would be: $8.5 / 0.264 = 32.20$ pounds CO per billion Btu).¹¹

The 9691 Condition D.2.6 (b) one test every five years demonstration can in no way show compliance on a more or less continuous basis with any of the following:

1. that CO is not exceeding 40 pounds per million scf fuel, and
2. that CO is not exceeding 8.5 pounds per hour when operating under any circumstance including operation at more than 261.3 million Btu/hour.

Nothing less than a CO continuous emission monitoring system ("CEM") can protect those limits, and such a CEM must be required within the 9691 permit D.2 section. And the limits must be 8.50 and 40.0, not 8.5 and 40.¹²

Response 9

The NO_x limits, in Conditions D.2.2 and CO limits, in Condition D.2.3, were arrived at through the BACT analysis, ambient air modeling and PSD permitting process according to 326 IAC 2-2 for the significant amendment A127-9642-00036 and original construction permit CP127-2326-00036. Short term limits for CO emissions in pounds per MMSCF ensures reasonable compliance. As a result there will be no changes made in the permit.

The IDEM response to requirement of a CO continuous emission monitor (CEM) to measure CO emissions is addressed in **Response 6** above.

Comment 10

Production based annual limit errors

When lay people are presented with a tpy limitation, they reasonably expect that it applies

¹¹ If Beta feels that 8.5 pounds CO per hour, when operating above 261.3 million Btu per hour, is inappropriate, then they may plead hardship as they did to obtain the 9642 sweetheart deals.

¹² See Footnote 2.

to all possible sets of consecutive 12-month periods. As written the 9691 Condition D.12 would allow emissions in consecutive combinations of months in different years to exceed the emission permitted in one calendar year. Condition D.12 must be revised to be substantially compliant with the following:

- (a) The short-term melt shop metal production shall not exceed 3,624 tons per consecutive 24-hour period rolled hourly, with compliance demonstrated at the end of each hour by recording the highest value in the month (having the last hour of the period) and the date of that value (being the date of the last hour of the period) on the quarterly reporting form; and
- (b) The long-term melt shop metal production shall not exceed 1,100,000 tons per consecutive 12-month period rolled monthly, with compliance demonstrated at the end of each month by recording on the quarterly reporting form.

There seems nothing in the 9691 draft that clearly requires the p. 58 of 58 quarterly report. Such text must be added. Further, on that form, "1.1 million" must be changed to "1,100,000."¹³

Applying the 9691 Condition D.1.12 (b) 1,100,000 tpy production limit to the Condition D.1.4(a) 0.45-pound NO_x per ton product limit results in 247.5 tpy, not 300.5 tpy. This is clear error that must be fixed prior to permit issuance.

Applying the 9691 Condition D.1.12 (a) 151 tph production limit to the Condition D.1.4(a) 0.45-pound NO_x per ton product limit results in 67.95 tph average of consecutive 24 hours, not 68.58 tph. This is clear error that must be fixed prior to permit issuance.

Applying the 9691 Condition D.1.12 (b) 1,100,000 tpy production limit to the Condition D.1.5(a) 0.33-pound SO₂ per ton product limit results in 181.5 tpy, not 218.4 tpy. This is clear error that must be fixed prior to permit issuance.

Applying the 9691 Condition D.1.12 (b) 1,100,000 tpy production limit to the Condition D.1.9(c) 0.15-pound volatile organic compound per ton product limit results in 82.5 tpy, not 83.2 tpy.

This is clear error that must be fixed prior to permit issuance.

Response 10

- (a) The short-term limit in the draft permit Condition D.1.12 (a) achieves the same result as the request in Comment 10(a). The permit will not be changed as a result of this part of the comment.
- (b) The long-term limit in the draft permit Condition D.1.12 (b) will be changed as follows:

D.1.12 Operational Parameters (PSD) (BACT) [326 IAC 2-2-3]

Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC2-2-3(2), Best Available control Technology), the Permittee shall comply with the revised SO₂, VOC and NO_x emissions from the melt shop by limiting the following throughput:

- (b) The maximum long-term metal production capacity from the melt shop shall not exceed 1,100,000 tons ~~per year~~. **per 12-consecutive month period with compliance demonstrated at the end of each month.**

The quarterly reporting form on page 59 of the draft permit is changed as follows:

13 See Footnote 2.

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

Part 70 Quarterly Report

Source Name: Beta Steel Corp.
Source Address: 6500 South Boundary Road, Portage, Indiana 46368
Mailing Address: 6500 South Boundary Road, Portage, Indiana 46368
Part 70 Permit No.: T127-9691-00043
Facility: Electric Arc Furnace, LMF, Continuous Caster and Hot Strip Mill
Parameter: Tons of throughput per year
Limit: ~~1.1 million tons per year~~ **1,100,000 tons per 12-consecutive month period with compliance demonstrated at the end of each month**

After further review, the NO_x ton per year emission rate in Condition D.1.4(a) of 300.5 tons per year was based on a maximum production of 151 tons of steel per hour x 8760 hrs/yr = 1,322,760 tons steel produced per year.

The NO_x ton per year emission rate, based on the long-term production limit of 1,100,000 ton/yr in the draft permit condition D.1.12 (b) is calculated as follows:

1,100,000 ton/yr production limit x 0.45 lb/ton of steel produced / 2000 lb/ton = 247.5 tons NO_x per year limit

Also, the NO_x short term lb/hr limit in condition D.1.4 (a) was calculated at 68.58 lbs per hour.

The short term NO_x lb/hr limit based on the short-term 151 lb/hr production limit in the draft permit condition D.1.12 (a) is calculated as follows:

151 tons/hr x 0.45 lb/ton = 67.95 lb/hr.

As a result of this comment, Condition D.1.4 (a) has been revised, so the NO_x ton per year emission rate is based on the production limit of 1,100,000 tons per year and the short term NO_x lb/hr limit is based on 151 tons per hour of steel produced for the melt shop, as follows:

D.1.4 Nitrogen Oxides (NO_x) - Best Available Control Technology [326 IAC 2-2-3]

-
- (a) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the NO_x emissions from the melt shop operations (consisting of the EAF, LMF, Caster and natural gas combustion units) shall not exceed forty five hundredths (0.45) pound per ton of steel produced and ~~68.58~~ **67.95** pounds per hour (~~300.5~~ **247.5** tons/year) through the melt shop stack (S-2).

After further review, the SO₂ ton per year emission rate in Condition D.1.5(a) of 218.4 tons per year was based on a maximum production of 151 tons of steel per hour x 8760 hrs/yr = 1,322,760 tons steel produced per year.

The long term SO₂ emission rate based on the long-term production limit of 1,100,000 ton/yr in the draft permit condition D.1.12 (b) is calculated as follows:

1,100,000 ton/yr production limit x 0.33 lb/ton of steel produced / 2000 lb/ton = 181.5 tons SO₂ per year limit

As a result of this comment, Condition D.1.5 (a) has been revised, so the SO₂ ton per year emission rate is based on the production limit of 1,100,000 tons per year for the melt shop, as follows:

D.1.5 Sulfur Dioxide (SO₂) - Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A 127-9642-00036 issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC 2-2-3 (BACT), the SO₂ emissions from the melt shop stack (S-2) (exhausting EAF, LMF, Caster and natural gas combustion units) shall not exceed 0.33 pounds per ton of steel produced and 49.87 pounds per hour (~~218.4~~ **181.5** tons/year) from the baghouse stack.

After further review, the VOC ton per year emission rate in Condition D.1.9(c) of 83.2 tons per year was based on a maximum production of 151 tons of steel per hour x 8760 hrs/yr = 1,322,760 tons steel produced per year.

The long term VOC emission rate based on the long-term production limit of 1,100,000 ton/yr in the draft permit condition D.1.12 (b) is calculated as follows:

1,100,000 ton/yr production limit x 0.15 lb/ton of steel produced / 2000 lb/ton = 82.5 tons VOC per year limit

As a result of this comment, Condition D.1.9(c) has been revised, so the VOC ton per year emission rate is based on the production limit of 1,100,000 tons per year for the melt shop, as follows:

D.1.9 Volatile Organic Compounds (VOC) - Best Available Control Technology [326 IAC 2-2-3]

- (c) Pursuant to A127-9642-00036, issued on May 30, 2003 (an amendment to CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (BACT), the combined VOC emissions from the Melt shop processes (consisting of EAF, LMF, Continuous Caster and natural gas units) shall not exceed 0.15 pounds per ton of steel produced and ~~83.2~~ **82.5** tons per year from the common stack (S-2).

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table of Contents has been modified to reflect these changes. Miscellaneous grammar and spelling corrections have been made throughout the permit also.

Change 1:

SECTION A SOURCE SUMMARY

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

Change 2:

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 ~~consists~~ **comprised** of the following emission units and pollution control devices:

- (1) One (1) Melt Shop with a production capacity of 1.1 million tons per year of steel ~~consists~~ **comprised** of the following:

Change 3:

The baghouse designation in condition A.2 has been revised as follows:

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

- (3) Fugitive dust and material handling processes
 - (b) Material Handling
 - (3) Slag and materials, exclusive of steel scrap are stored within the closed building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-4 2) and exhaust through stack S-2, with a COM.

Change 4:

Condition A.3 was revised to clarify the language as follows:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (2) Other insignificant activities
 - (o) Purging of gas lines and vessels that is related to ~~routing~~ **routine** maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

Change 5:

IDEM has revised condition C.21, since the emission statement rule 326 IAC 2-6, was revised and became effective March 27, 2004. The revised rule was published in the April 1, 2004 Indiana Register. The specific requirements to the emission statement rule are as follows:

C.21 Emission Statement [326 IAC 2-7-5(3) (C) (iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)]
[326 IAC 2-6]

~~The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by **(April 15 or July 1)** of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:~~

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

- (1) Indicate estimated actual emissions of ~~criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting)~~ all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.
- (b) ~~The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.~~ The annual emission statement must be submitted to:
- Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) (b) The ~~annual~~ emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

Change 6:

The issuance date of the significant amendment was added to clarify condition D.1.4 as follows:

D.1.4 Nitrogen Oxides (NO_x) - Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A127-9642-00036, **issued May 30, 2003** (an amendment to CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the NO_x emissions from the melt shop operations (consisting of the EAF, LMF, Caster and natural gas combustion units) shall not exceed forty five hundredths (0.45) pound per ton of steel produced and 68.58 pounds per hour (247.5 tons/year) through the melt shop stack (S-2).
- (b) Pursuant to A127-9642-00036, **issued May 30, 2003** (an amendment of CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (BACT), the (3) Ladle Preheat/Holding Stations shall be limited to the use of low NO_x natural gas fired burners. Each Ladle Preheat/Holding Station shall not exceed 11.5 MMBtu per hour heat input. Emissions from the three (3) stations shall be exhausted to the melt shop baghouse exhaust S-2.
- (c) Pursuant to A127-9642-00036, **issued May 30, 2003** (an amendment of CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the (1) ladle/preheat station shall be limited to the use of low NO_x natural gas fired burners and not exceed 6.0 MMBtu ~~each~~ per hour heat input. Emissions from the one (1) ladle/preheat station shall be exhausted to the melt shop baghouse exhaust S-2.
- (d) Pursuant to A127-9642-00036, **issued May 30, 2003** (an amendment of CP 127-2326-00036 issued on February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the (1) Tundish, Dry out and Preheat Station shall be limited to

the use of low NOx natural gas fired burners and not exceed 3.5 MMBtu per hour heat input. Emissions from the one (1) Tundish, Dry out and Preheat Station shall be exhausted to the melt shop baghouse exhaust S-2.

Change 7:

The issuance date of the significant amendment was added to clarify condition D.1.21 Monitoring of Operations [40 CFR 60.274a]

Pursuant to CP 127-2326-00036, **issued February 24, 1992** (as amended in A127-9642-00036, **issued May 30, 2003**) and 40 CFR 60.274a, the Permittee shall comply with the following monitoring requirements:

Change 8:

The issuance date of the significant amendment was added to clarify condition D.2.2 as follows:

D.2.2 Nitrogen Oxides (NOx) Best Available Control Technology [326 IAC 2-2-3]

- (b) Pursuant to A127-9642-00036, **issued May 30, 2003** (an amendment of CP 127-2326-00036 issued February 24, 1992) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements) the NOx emissions from Slab Reheat Furnace shall be controlled by NOx control technology consisting of low NOx burners and a Selective Catalytic Reduction (SCR) Unit (CE-1).

Change 9:

The Section D.3 description language was revised for language consistency as follows:

Facility Description [326 IAC 2-7-5(15)]: The source ~~also consists~~ **is also comprised** of the following fugitive dust and material handling processes:

- (a) Roadways and parking lots are paved
- (b) Material Handling
- (1) EAF slag pit dig out operations are controlled by a canopy hood exhausted to melt shop baghouse (CE-~~4~~-2) through stack S-2, with a COM.
- (2) Slag and materials, except steel scrap are handled in the melt shop building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-~~4~~-2) and exhaust through stack S-2, with a COM.
- (3) Slag and materials, exclusive of steel scrap are stored within the enclosed building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-~~4~~-2) and exhaust through stack S-2, with a COM.

Change 10:

Condition D.3.2 was revised to include the rule site as follows:

D.3.2 Particulate Matter (PM/PM10) Best Available Control Technology (BACT) [326 IAC 2-2-3]

Change 11:

The issuance date of the significant amendment was added to clarify condition D.3.4 as follows:

D.3.4 Fugitive Dust Particulate Matter (PM/PM10) Emission Limitations [326 IAC 6-5]

Pursuant to A127-9642-00036, **issued May 30, 2003** and 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), the fugitive particulate matter emissions shall be controlled according to the plan submitted on December 10, 1991.

Change 12:

The title of Condition B.21, Inspection and Entry, has been revised to include additional rule cite as follows:

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

Change 13:

IDEM has revised the condition C.8 in order to clarify what parts of the regulation are not federally enforceable.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of **326 IAC 1-7-1(3)**, 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(~~d~~), (~~e~~), and (~~f~~), and 326 IAC 1-7-5(**a**), (**b**), and (d) are not federally enforceable.

Change 14:

In condition C.10, the term "source" is replaced with "Permittee" as follows:

C.10 Performance Testing [326 IAC 3-6]

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

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the ~~source~~ **Permittee** submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Change 15:

In condition C.18, the language has been revised to clarify when a risk management plan is required. The revision is as follows:

C.18 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, ~~subject to~~ **as defined in 40 CFR 68**, is present at a source in more than a threshold quantity, ~~40 CFR 68 is an applicable requirement and the Permittee shall submit:~~ **the Permittee must comply with the applicable requirements of 40 CFR 68.**

- (a) ~~A compliance schedule for meeting the requirements of 40 CFR 68; or~~
- (b) ~~As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP);~~

~~All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

Change 16:

Condition C.19 – Compliance Response Plan – Preparation, Implementation, Records and Reports has been modified to apply to situations where the emission unit will continue to operate at an extended time while the compliance monitoring parameter is out of range. It is intended to provide OAQ an opportunity to assess the situation and determine whether any additional actions are necessary to demonstrate compliance with applicable requirements. In addition if a source is required to have an Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shut-down and Malfunction (SSM) Plan) under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP. The changes to C.19 are as follows:

C.19 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation,

Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) to include such response steps taken.

The OMM Plan (or Parametric Monitoring and SSM Plan) shall be submitted within the time frames specified by the applicable 40 CFR 60/63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) ; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be 10 days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. **The notification shall also include** the status of the applicable compliance monitoring parameter with respect to normal, and the results of the **response** actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.

Change 17:

In condition C.23, the term "source" is replaced with "Permittee" as follows:

C.23 General Reporting Requirements [326 IAC 2-7-5(3) (C)] [326 IAC 2-1.1-11]

- (a) The ~~source~~ **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).

Change 18:

In condition D.2.2, the heat input capacity of the reheat furnace was revised to state the heat input capacity from the construction permit CP127-2326-00036 and significant amendment A127-9642-

00036.

D.2.2 Nitrogen Oxides (NOx) Best Available Control Technology [326 IAC 2-2-3]

- (a) Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC2-2-3(2), Best Available Control Technology (BACT), only natural gas shall be burned in the slab reheat furnace and the heat input shall not exceed ~~264.0~~ **264.6** MMBtu per hour.

Change 19:

In condition D.1.12, the language was revised to clarify the limit and operating hours as follows:

D.1.12 Operational Parameters (PSD) (BACT) [326 IAC 2-2-3]

Pursuant to A127-9642-00036, issued May 30, 2003 (an amendment to CP 127-2326-00036, issued February 24, 1992) and 326 IAC2-2-3(2), Best Available control Technology), the Permittee shall comply with the revised SO₂, VOC and NO_x emissions from the melt shop by limiting the following throughput:

- (a) The maximum short-term metal production capacity from the melt shop shall not exceed ~~exceed~~ 151 tons per hour, over a period of 24 hour operating hours rolling average, with compliance demonstrated at the end of each hour; and

Change 20:

A reporting requirement in Amendment Letter A127-16763-00036 issued December 13, 2002 for an amendment of construction permit CP127-2326-00036, issued February 24, 1992, and was not included in the draft permit. The reporting requirements of Condition D.1.23 have been revised and renumbered as follows:

D.1.23 Reporting Requirements [326 IAC 3-5-7] [40 CFR 60.276a]

- (a) Pursuant to A127-16763-00036, the Permittee shall submit a quarterly summary of the records required under D.1.22 (a) within thirty (30) days after the end of the quarter being reported to**

**Office of Enforcement
Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015**

**Compliance Branch and Permits Branch
Office of Air Quality
Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015**

- ~~(a)~~ **(b)** The Permittee shall submit a quarterly excess emissions report, if applicable, based on the continuous opacity monitor (COM) data, pursuant to 326 IAC 3-5-7. These reports shall be submitted within thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit.
- ~~(b)~~ **(c)** Pursuant to 40 CFR 60.276a, the Permittee shall comply with the following reporting

requirements:

- (1) The Permittee shall submit a semi-annual written report of exceedances of the control device opacity to IDEM, OAQ, and the U.S. EPA.
- (2) Unless the Permittee elects to use the alternate to static pressure monitoring outlined in Condition D.1.21 (b), the Permittee shall submit semi-annually any values that exceed furnace static pressure established under Condition D.1.21 (e) and values of control system fan motor amperes that exceed 15 percent of the value established under Condition D.1.21(c) or values of flow rates lower than those established under Condition D.1.21(c) to IDEM, OAQ, and the U.S. EPA.
- (3) The Permittee shall furnish to IDEM, OAQ, and the U.S. EPA a written report of the results of the compliance emission test required to determine compliance with conditions D.1.3 through D.1.9. This report shall include the following information:
 - (A) Facility name and address;
 - (B) Plant representative;
 - (C) Make and model of process, control device, and continuous monitoring equipment;
 - (D) Flow diagram of process and emissions capture equipment including other equipment or process (es) ducted to the same control device;
 - (E) Rated (design) capacity of process equipment;
 - (F) The following operating conditions:
 - (i) List of charge and tap weights and materials;
 - (ii) Heat times and process log;
 - (iii) Control device operation log; and
 - (iv) Continuous monitor or Reference Method 9 data.
 - (G) Test dates and test times;
 - (H) Test company;
 - (I) Test company representative;
 - (J) Test observers from outside agency;
 - (K) Description of test methodology used, including any deviation from standard reference methods;
 - (L) Schematic of sampling location;
 - (M) Number of sampling points;
 - (N) Description of sampling equipment;

- (O) Listing of sampling equipment calibrations and procedures;
- (P) Field and Laboratory data sheets;
- (Q) Description of sample recovery procedures;
- (R) Sampling equipment leak check results;
- (S) Description of quality assurance procedures;
- (T) Description of analytical procedures;
- (U) Notation of sample blank corrections; and
- (V) Sample emission calculations.

~~(e)~~ (d) The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Change 21:

A reporting requirement in Amendment Letter A127-16763-00036 issued December 13, 2002 for an amendment of construction permit CP127-2326-00036, issued February 24, 1992, and was not included in the draft permit. The reporting requirements of Condition D.2.11 have been revised and renumbered as follows:

D.2.11 Reporting Requirements

(a) The Permittee shall submit a quarterly summary of the records required under D.2.10 (a) within thirty (30) days after the end of the quarter being reported to

**Office of Enforcement
Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015**

**Compliance Branch and Permits Branch
Office of Air Quality
Indiana Department of Environmental Management
100 N. Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015**

~~(a)~~ (b) The Permittee shall submit the records of excess NOx emissions (defined in 326 IAC 3-5-7 and 40 CFR Part 60.7) from the continuous emissions monitoring system on a quarterly basis to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported.

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

Change 22:

IDEM is including a hard copy of the operation and maintenance plan to the final Part 70 permit as

Attachment A. Conditions D.1.22 (a) (2) is revised as follows:

D.1.22 Record Keeping Requirements

- (a) Pursuant to A127-16763-00036 and to demonstrate compliance with Conditions D.1.3 through D.1.6 and D.1.9, the Permittee shall maintain a log of information necessary to document compliance with the BACT emission limits of the following:
- (1) The throughput, natural gas usage, CO and opacity emission records for the melt shop.
 - (2) The inspection and maintenance of emission control equipment as set forth in the operation and maintenance program **Attachment A**.

Change 23:

IDEM is including a hard copy of the fugitive dust plan to the final Part 70 permit as Attachment B. Conditions C.6 and D.3.4 have been revised as follows:

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 10, 1991. The plan is included as Attachment **A B**.

D.3.4 Fugitive Dust Particulate Matter (PM/PM10) Emission Limitations [326 IAC 6-5]

Pursuant to A127-9642-00036 and 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), the fugitive particulate matter emissions shall be controlled according to the plan submitted on December 10, 1991. **The plan is included as Attachment B**.

Change 24:

IDEM is including a hard copy of the scrap management plan to the final Part 70 permit as Attachment C. Condition D.1.22 (a) (3) is revised as follows:

D.1.22 Record Keeping Requirements

- (a) Pursuant to A127-16763-00036 and to demonstrate compliance with Conditions D.1.3 through D.1.6 and D.1.9, the Permittee shall maintain a log of information necessary to document compliance with the BACT emission limits of the following:
- (3) All transactions involved with implementation of the scrap management plan.
This plan is included as Attachment C.

Change 25:

The Northwest Regional Office recently moved to a new location and Condition B.11 (b) (4) has been changed to update the new telephone numbers as follows:

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

- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

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

Telephone Number: ~~219-881-6742~~ **219-757-0265**(Northwest Regional Office)
Facsimile Number: ~~219-881-6745~~ **219-757-0267**

Change 26:

In accordance with the credible evidence rule (62 Fed. Reg. 8314, Feb 24, 1997); Section 113(a) of the Clean Air Act, 42 U.S. C. § 7413 (a); and a letter from the United States Environmental Protection Agency (USEPA) to IDEM, OAQ dated May, 18 2004, all permits must address the use of credible evidence; otherwise, USEPA will object to the permits. The following language has been incorporated into the permit to address credible evidence:

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]

Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.

Change 27:

On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named 23 Indiana counties and one partial county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004 Porter County has been designated as nonattainment for the 8-hour ozone standard. The following has been added to A.1 General Information:

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

The Permittee owns and operates a mini steel mill.

Responsible Official:	Director of Manufacturing
Source Address:	6500 South Boundary Road, Portage, IN 46368
Mailing Address:	6500 South Boundary Road, Portage, IN 46368
General Source Phone Number:	219-787-8200
SIC Code:	3312
County Location:	Porter
Source Location Status:	Nonattainment for 1 hour Ozone Standard Nonattainment for 8 hour Ozone Standard Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Emission Offset Rules; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

Change 28:

Although the TSD itself will not be revised as it is a historical document and the TSD was correct at the time of public notice, the following is being provided to show how the county attainment status has been affected

as a result of the 8-hour ozone standard designations. The county attainment status regarding other pollutants remain unchanged; therefore will not be shown below other than in the table.

County Attainment Status

The source is located in Porter County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, marginal, or basic nonattainment)
PM-10	unclassifiable
SO ₂	unclassifiable
NO ₂	unclassifiable
1-hour Ozone	non-attainment-severe
8-hour Ozone	nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) ~~are precursors for the formation of ozone~~ are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.
- (1) On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Porter County has been designated as nonattainment in Indiana for the 1-hour ozone standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.
 - (2) VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. 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.

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name: Beta Steel Corp.
Source Location: 6500 South Boundary Road, Portage, IN 46368
County: Porter
SIC Code: 3312
Operation Permit No.: T127-9691-00036
Permit Reviewer: Gail McGarrity

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Beta Steel Corp. relating to the operation of a Steel Mini Mill.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (1) One (1) Melt Shop with a production capacity of 1.1 million tons per year of steel consists of the following:
 - (a) One (1) twin shell electric arc furnace (EAF), identified as unit 1, constructed in 1997, having a maximum capacity of 151 tons per hour, equipped with a direct shell evacuation (DSE) control system ("fourth hole" duct), an overhead roof exhaust system consisting of a canopy hood, an air gap for controlling carbon monoxide (CO) and volatile organic compounds (VOC) emissions, low - NOx/oxyfuel burners and the melt shop baghouse CE-2 controlling PM/PM10 emissions, exhausting through stack S-2 with a continuous opacity monitor (COM).
 - (b) One (1) ladle metallurgical station, identified as unit 2, constructed in 1997, having a maximum capacity of 151 tons per hour, exhausting to a side draft hood ducted to the melt shop baghouse CE-2 exhausting through stack S-2 with a COM.
 - (c) One (1) continuous caster, identified as unit 3, constructed in 1997, having a maximum capacity of 151 tons per hour, with emissions from the hot metal handling and pouring operations exhausting to a canopy hood and ducted to the melt shop baghouse CE-2, then through stack S-2 with a COM. Steam from the slab cooling operations is vented through a steam vent in the roof of the Melt Shop Building.
 - (d) One (1) Slag Air Cooling Bay Area, identified as unit 4, constructed in 1997, having a maximum capacity of 10 tons per hour, exhausting through the Slag Cooling Bays exhaust system to the melt shop baghouse CE-2 for controlling PM/PM10 emissions, exhausting through the melt shop Stack (S-2) with a COM.
 - (e) Three (3) natural gas fired, ladle preheat holding stations identified as units 5, 6 and 7, constructed in 1997, having a heat input capacity of 11.5 MMBtu per hour

each, exhausting to canopy hoods ducted to the melt shop baghouse CE-2, exhausting through the melt shop stack S-2 with a COM.

- (f) One (1) natural gas fired, ladle preheat holding station, identified as unit 8, constructed in 1997, having a heat input capacity of 6 MMBtu per hour. Emissions exhaust to canopy hoods ducted to the melt shop baghouse CE-2, then exhausting through stack S-2, with a COM.
 - (g) One (1) natural gas fired, Tundish dry out and preheat station identified as unit 9, constructed in 1997, having a heat input capacity of 3.5 MMBtu per hour. Emissions exhaust to canopy hoods ducted to the melt shop baghouse CE-2, then exhausting through stack S-2, with a COM.
 - (h) One (1) CoJet System including oxy-fuel burners
 - (i) Oxy-fuel cutoff Torch at the exit end of the continuous caster
- (2) Hot Strip Mill Operations with a maximum capacity of 1.16 MM ton per year steel production, comprised of the following:
- (a) One (1) 264.6 MMBtu/hour natural gas fired Reheat Furnace identified as unit 10, constructed in 1992, equipped with low NOx burners and a Selective Catalytic Reduction (SCR) Unit (CE-1), exhausting to Reheat Furnace Stack (S-1).
 - (b) One (1) 60-inch Hot Strip Mill consisting of unit 11 (Hot Rolling Mill), unit 12 (Strip Cooling Line) and unit 13 (Coiler), constructed in 1991, having a maximum capacity of 170 tons per hour.
- (3) Fugitive dust and material handling processes
- (a) Roadways and parking lots are paved
 - (b) Material Handling
 - (1) EAF slag pit dig out operations are controlled by the slag handling canopy hood exhausted to melt shop baghouse (CE-2) through stack S-2, with a COM.
 - (2) Slag and materials, except steel scrap are handled in the melt shop building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-2) and exhaust through stack S-2, with a COM.
 - (3) Slag and materials, exclusive of steel scrap are stored within the enclosed building and the PM/PM10 emissions are controlled by the melt shop baghouse (CE-1) and exhaust through stack S-2, with a COM.

There are no new emission units or facilities added at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Specifically regulated insignificant activities
 - (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

- (b) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100EF).
- (2) Other insignificant activities
- (a) Space heaters, process heaters, or boilers using the following fuels:
 - (i) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
 - (ii) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
 - (b) Combustion source flame safety purging on startup.
 - (c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
 - (d) The following VOC and HAP storage containers: Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
 - (e) Refractory storage not requiring air pollution control equipment.
 - (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
 - (g) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
 - (h) Closed loop heating and cooling systems.
 - (i) Any of the following structural steel and bridge fabrication activities:
 - (i) Cutting 200,000 linear feet or less of one inch (10) plate or equivalent.
 - (ii) Using 80 tons or less of welding consumables.
 - (j) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
 - (k) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.
 - (l) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.
 - (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
 - (n) Heat exchanger cleaning and repair.
 - (o) Purging of gas lines and vessels that is related to routing maintenance and repair

of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

- (p) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia, and sulfur trioxide.
- (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (r) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (s) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower.
- (t) Filter or coalescer media changeout.
- (u) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).
- (v) A laboratory as defined in 326 IAC 2-7-1(21)(D).

Existing Approvals

The source has been operating under previous approvals including, but not limited to the following:

- (a) PSD Construction Permit CP127-2326-00036, issued, February 24, 1992
- (b) Amendment 127-7055-00036, issued February 4, 1997
- (c) Amendment 127-8368-00036, issued, May 27, 1997
- (d) Amendment 127-16763-00036, issued December 13, 2002
- (e) Amendment 127-9642-00036 issued, May 30, 2003

All conditions from previous approvals were incorporated into this Part 70 permit, except the following:

CP127-2326-00036, issued, February 24, 1992, quarterly reporting forms for natural gas usage, throughput, particulate emissions, CO emissions, and Opacity readings.

Reason not incorporated: These forms are outdated and list equipment that is not at the source.

Enforcement Issue

As of this date the source is out of compliance with the melt shop baghouse stack (S-2) 326 IAC 2-2 (BACT) SO₂ limits.

The IDEM has information that indicates that the Permittee is not in compliance with this applicable requirement. The OAQ will promptly reopen this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 326 IAC 2-2-3 (BACT) SO₂ emission limit and a schedule for achieving compliance with such

Recommendation

The staff recommends to the Commissioner that the Part 70 permit 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 administratively complete Part 70 permit application for the purposes of this review was received on April 17, 1998. Additional information was received on January 26, 2000.

A notice of completeness letter was mailed to the source June 2, 1998.

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.”

Pollutant	Potential To Emit (tons/year)
PM	greater than 100
PM-10	greater than 100
SO ₂	greater than 100
VOC	greater than 25
CO	greater than 100
NO _x	greater than 100

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)
Antimony	less than 1
Arsenic	less than 1
Beryllium	less than 1
Cadmium	less than 1
Chromium	less than 2
Cobalt	less than 1
Manganese	less than 6
Mercury	less than 1
Nickel	less than 1
Selenium	less than 1
TOTAL	less than 15

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10, SO2, CO, and NOx are equal to or greater than 100 tons per year and 25 tons per year VOC in Porter county. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1(16)) of any single HAP is less then ten (10) tons per year or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.
- (c) Fugitive Emissions
 Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2 the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	---
PM-10	1
SO ₂	25
VOC	42
CO	17
NO _x	47
HAP (specify)	less than 1

County Attainment Status

The source is located in Porter County.

Pollutant	Status
PM-10	unclassifiable
SO ₂	unclassifiable
NO ₂	unclassifiable
Ozone	non-attainment-severe
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are a precursor for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Porter County has been designated as nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Porter County has been classified as attainment or unclassifiable for PM10, SO2, NOx, CO and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (c) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

- (a) The Electric Arc Furnaces (EAFs) are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.270a, Subpart AAa). This rule requires the following:
 - (1) Pursuant to 40 CFR Part 60, Subpart AAa (Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983), particulate emissions from the EAF baghouse shall not exceed 0.0052 grains per dry standard cubic feet, 3 percent opacity at the control device, 6 percent opacity from the shop due solely to the operations of any affected electric arc furnace, and 10 percent opacity from the dust handling system.
 - (2) Pursuant to 40 CFR 20.272a(a), the Permittee shall not cause to discharge into the atmosphere from the EAF any gases that:
 - (A) Exit from a control device and exhibit three percent (3%) opacity or greater; and
 - (B) Exit from the melt shop, and due solely to the operations of the EAF, exhibit six percent (6%) opacity or greater.
- (b) The provisions of 40 CFR Part 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the EAF except when otherwise specified in 40 CFR Part 60, Subpart AAa.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) on December 10, 1991. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-2 Prevention of Significant Deterioration (PSD)

This source is a major source under 326 IAC 2-2 (PSD) , because it belongs to one of 28 major source categories and has the potential to emit of PM, PM10, NOx and CO greater than 100 tons each per year.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and NO_x and is located in Porter County. 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 Limits (Visible Emissions Limitations)

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

- (a) Opacity shall not exceed an average of 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 Fugitive Dust Emissions

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), all sources of fugitive dust shall not allow the generation of particulate matter such that it escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 Fugitive Dust Control Measures

Pursuant to 326 IAC 6-5 (Fugitive Dust Control Measures), measures for fugitive particulate matter shall be detailed in a fugitive dust control plan.

State Rule Applicability - Individual Facilities

Melt Shop

326 IAC 2-2-3 Prevention of Significant Deterioration (PSD) (BACT)

Pursuant to 326 IAC 2-2-3 (PSD) and A127-9642-00036, issued on May 30, 2003, an amendment to CP 127-2326-00036, issued on February 24, 1992, (as amended in A127-8368-00036 issued on April 4, 1997) the following particulate matter (PM/PM₁₀) emissions (where PM₁₀ includes both filterable and condensible components) controls and limitations apply:

- (a) The PM/PM₁₀ emissions (where PM₁₀ includes both filterable and condensible components) from the melt shop shall be controlled by a baghouse.
- (b) The PM/PM₁₀ emissions (where PM₁₀ includes both filterable and condensible components) from the ladle metallurgical station shall be captured by a side draft hood and ducted to the melt shop baghouse.
- (c) The PM/PM₁₀ emissions (where PM₁₀ includes both filterable and condensible components) from the continuous caster shall be captured by a canopy hood and ducted to the melt shop baghouse.
- (d) The PM/PM₁₀ (where PM₁₀ includes both filterable and condensible components) emissions from the melt shop stack S-2, including the EAF, LMF, Caster and natural gas combustion units, shall not exceed 0.0052 grains per dry standard cubic foot and shall be limited to 58.8 pounds of PM/PM₁₀ per hour.

326 IAC 2-2-3 Prevention of Significant Deterioration (PSD) (BACT)

Pursuant to 326 IAC 2-2-3 (PSD) and A127-9642-00036, issued on May 30, 2003, an amendment to CP 127-2326-00036 issued on February 24, 1992, (as amended in A127-8368-00036 issued on April 4, 1997) the following Nitrogen Oxides (NO_x) emissions controls and limitations apply:

- (a) The (3) three ladle preheat/holding stations natural gas usage shall not exceed 11.5 MMBtu per hour each in terms of heat input.
- (b) The (1) one ladle preheat/holding station natural gas usage shall not exceed 6.0 MMBtu per hour each in terms of heat input.
- (c) The (1) one Tundish Dryout and Preheat Station natural gas usage shall not exceed 3.5 MMBtu per hour in terms of heat input.
- (d) The total NO_x emissions from the melt shop stack (S-2), (including the EAF, LMF, Caster and natural gas units shall be limited to 0.45 pounds per ton of steel produced and 68.58 pounds of NO_x per hour (300.5 tons/year).

326 IAC 2-2-3 Prevention of Significant Deterioration (PSD) (BACT)

Pursuant to 326 IAC 2-2-3 and A127-9642-00036, issued on May 30, 2003, an amendment to CP 127-2326-00036, issued on February 24, 1992, (as amended in A127-8368-00036 issued on April 4, 1997) the following Sulfur Dioxide (SO₂) emission controls and limitations apply:

- (a) The SO₂ emissions from the EAF shall be controlled by the use of high quality scrap.
- (b) The total SO₂ emissions from melt shop stack (S-2) (including the EAF, LMF, Caster and natural gas units), shall not exceed 0.33 pounds per ton of throughput. At a maximum throughput of 151 tons per hour, this limit is equivalent to 49.87 pounds of SO₂ emissions per hour.

326 IAC 2-2-3 Prevention of Significant Deterioration (PSD) (BACT)

Pursuant to 326 IAC 2-2-3 and A127-9642-0003, issued on May 30, 2003, an amendment to CP 127-2326-00036, issued on February 24, 1992, (as amended in A127-8368-00036, issued on April 4, 1997) the following Carbon Monoxide (CO) emissions controls and limitations apply:

- (a) CO emissions from the EAF shall be controlled by 140,000 acfm direct shell evacuation (DSE) system. The combustion elbow at the DSE shall be designed to provide 200% excess air for the oxidation of CO and other present gaseous pollutants.
- (b) The total CO emissions from the melt shop stack (S-2) (including the EAF, LMF, Caster and natural gas units), shall be limited to 817 pounds per hour (3,578.8 tons/year).

326 IAC 9-1 Carbon Monoxide (CO)

Pursuant to 326 IAC 9-1, CO concentrations shall be less than 20% of the maximum one (1) hour National Ambient Air Quality Standards (NAAQS) of 40 milligrams per cubic meter (40,000 ug/m³, 35 ppm). Modeling results indicate that CO will be less than 180 ug/m³ or 0.5% of the NAAQS.

326 IAC 2-2-3 Prevention of Significant Deterioration (PSD) (BACT)

Pursuant to 326 IAC 2-2-3 and A127-9642-00036, issued on May 30, 2003, an amendment to CP 127-2326-00036, issued on February 24, 1992, (as amended in A127-8368-00036, issued on April 4, 1997) the following Volatile Organic Compounds (VOC) emissions controls and limitations apply:

- (a) The EAF, volatile organic compound (VOC) emissions shall be controlled through a scrap management program to eliminate steel scrap with high residual oil content.
- (b) The Permittee shall charge only clean scrap, consistent with the Scrap Management Program.
- (c) The VOC emissions from the Melt shop processes including EAF, LMF, Caster and natural gas combustion units, shall not exceed 0.15 pounds per ton and 83.2 tons of VOC per year. This limit combined with the VOC emissions from the reheat furnace and other smaller units limited VOC emissions from the entire source to less than 100 tons per year, which is the applicability threshold of 326 IAC 2-3 at the time of construction of the melt shop.

326 IAC 8-1-6 New Facilities: VOC General Reduction Requirements (BACT)

The EAF has potential emissions greater than 25 tons per year and was constructed after January 1, 1980. Therefore, it is subject to BACT. The BACT requirements for 326 IAC 2-2 are considered equivalent.

326 IAC 2-2-3 (PSD) (BACT) Visible Emission

- (a) Pursuant to 326 IAC 2-2-3 and A127-9642-00036, issued on May 30, 2003, an amendment to CP 127-2326-00036, issued on February 24, 1992, (as amended in A127-8368-00036, issued on April 4, 1997), the visible emissions from the Melt Shop baghouse stack (S-2) shall be limited to three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (b) Pursuant to 326 IAC 2-2-3 and A127-9642-00036, issued on May 30, 2003, an amendment to CP 127-2326-00036, issued on February 24, 1992, (as amended in A127-8368-00036, issued on April 4, 1997), all fugitive particulate matter (PM and PM-10) emissions generated during furnace operations shall be captured by the melt shop roof canopy and ducted to the Melt shop baghouse such that visible emissions generated due to EAF operations shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9) when emitted from any roof monitor or building opening.

Reheat Furnace

326 IAC 2-2-3 Particulate Matter (PM/PM10) -(BACT)

- (a) Pursuant to CP 127-2326-0003, issued February 24, 1992, (as amended in A127-9642-00036) and 326 IAC 2-2-3 (PSD - Control Technology Review; Requirements), the PM/PM10 (where PM10 includes filterable and condensable components) emissions from the Slab Reheat Furnace shall not exceed 16.3 pounds per MMscf of natural gas burned and 4.2 pounds per hour (18.5 tons per year).
- (b) Pursuant to CP 127-2326-00036 issued February 24, 1992, (as amended in A127-9642-00036) and 326 IAC 2-2-3 (PSD - Control Technology review; Requirements) the PM and PM-10 from the hot strip mill shall be limited by using recirculated high pressure water descalers and water cooling sprays. Any particulate matter, in solid or liquid form shall be collected in flumes and transported to the scale pit.

326 IAC 6-3-2 Particulate Limitation for Manufacturing Processes

This source is not subject to 326 IAC 6-3, because the reheat furnace is subject to a 326 IAC 2-2 limit.

326 IAC 2-2-3 Nitrogen Oxides (NOx) (BACT)

- (a) Pursuant to 326 IAC 2-2-3 and A127-9642-0003, issued on May 30, 2003 an amendment to CP127-2326-00036, issued on February 24, 1992 (as amended in A127-8368-00036, issued on April 4, 1997), the heat input to the Slab Reheat Furnace shall not exceed 264 MMBtu per hour.
- (b) The NOx emissions from the slab reheat furnace shall be controlled by using natural gas as fuel, low NOx natural gas fired burners and a Selective Catalytic Reduction Unit (CE-1).
- (c) NOx emissions shall not exceed 77.06 pounds per MMscf (0.077 lb/MMBtu) of natural gas burned and 18.88 pounds per hour on a three (3) hour operating hour average basis, except during startup and shutdown (82.34 tons/year).
- (d) The following shall apply during periods of startup and shutdown:
 - (1) Startup is defined as the duration from the first firing of burners in the Reheat Furnace to the time when the exhaust gas temperature is within the optimum ranges of the operation of the control device for NOx emissions.
 - (2) Shutdown is defined as the duration from first curtailment of fuel input to the Reheat Furnace burners with the intent of full shutdown to the final complete stop of fuel input and complete cessation of combustion in the Reheat Furnace.
 - (3) The Reheat Furnace shall be operated in a manner consistent with good air pollution control and work practices to minimize emissions during startup. And shutdown by operating in accordance with written procedures developed and maintained by the Permittee, which shall include at a minimum the following measures:
 - (A) Review of operating parameters of the unit during startup, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions;
 - (B) Operate emission control equipment as soon as the Reheat Furnace exhaust gas temperature reaches the lower value of the optimum temperature range for the control equipment. This operation shall continue until the time the Reheat Furnace shutdown sequence is initiated with the intention of shutdown of the unit; and
 - (C) Implementation of inspection and repair procedures for the Reheat Furnace and the emissions control equipment prior to attempting startup to ensure proper operation.

326 IAC 2-2-3 Carbon Monoxide (CO) Best Available Control Technology (BACT)

Pursuant to 326 IAC 2-2-3 and A127-9642-00036, issued on May 30, 2003, an amendment to CP127-2326-00036, issued on February 24, 1992 (as amended in A127-8368-00036, issued on April 4, 1997), the CO emissions from the Reheat Furnace shall not exceed 40 pounds per MMscf of natural gas burned and 8.5 pounds per hour (37.2 tons/year).

326 IAC 2-2-3 Volatile Organic Compounds (VOC) Best Available Control Technology

Pursuant to 326 IAC 2-2-3 and A127-9642-00036, issued on May 30, 2003, an amendment to CP127-2326-00036, issued on February 24, 1992 (as amended in A127-8368-00036, issued

on April 4, 1997), the CO emissions from the Reheat Furnace shall not exceed 1.7 lb/mmssc of natural gas burned and 0.4 pounds per hour (1.6 tons/year).

Fugitive Dust and Material Handling Processes

326 IAC 2-2-3(2) Particulate Matter (PM/PM10) Fugitive Dust Plan Limits Best Available Control Technology (BACT)

Pursuant to CP-127-2326-00036, issued on February 24, 1992 and 326 IAC 2-2-3(2) (PSD)(BACT), the Permittee shall implement a fugitive dust plan to limit fugitive dust emissions, that includes the following:

- (1) Reduce uncontrolled paved road and parking lot fugitive dust emissions by at least ninety percent (90%).
- (2) Treat plant roads as urban roads and limit the silt to 17 pounds per mile of particulate matter less than 75 microns in diameter.
- (3) EAF slag pit dig out operations, located within the slag handling canopy hood shall not exceed three percent (3%) opacity.
- (4) Ensure controlled slag processing and storage pile emissions by conducting slag dumping and slag load out operations in an enclosed building exhausted to the melt shop baghouse stack S-2.
- (5) Ensure controlled storage pile emissions by storing excess slag in an enclosed building exhausted to the melt shop baghouse stack S-2.

326 IAC 2-2-3(2) Particulate Matter (PM/PM10) Best Available Control Technology (BACT)
Pursuant to CP-127-2326-00036, issued on February 24, 1992, and 326 IAC 2-2-3(2) (BACT), the skull or steel scrap not mechanically reduced in size shall be torch/cut within an enclosed building using the melt shop baghouse (CE-2) as the control device.

Insignificant Activities

326 IAC 8-3-2 VOC (Cold Cleaner Operations)

This source is subject to 326 IAC 8-3-2 (Cold Cleaner Operations), because the source operates a cold cleaning degreasing operation, constructed after January 1, 1980.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control),

This source is subject to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), because the source operates a cold cleaner degreaser without remote solvent reservoirs, constructed after July 1, 1990.

326 IAC 8-3-8 Volatile organic Compounds (VOC)

This source is subject to 326 IAC 8-3-8 (Material requirements for cold cleaning degreasers), because it operates a cold cleaning degreasing operation and on and after May 1, 2001, no person shall operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

Testing Requirements

- (a) The Permittee shall perform stack tests of the Melt Shop stack S-2, within one year of the latest valid compliance demonstration of the limits for NOx, SO₂, CO and VOC.

- (1) The COM of the Melt Shop Baghouse Stack (S-2) exhaust shall satisfy the annual requirement for stack (S-2) , unless violations have occurred during the last twelve (12) month period.
- (2) The Permittee can demonstrate compliance with the melt shop VOC emission limit by calculating 'Total Organic Compounds (TOC)' using 'as carbon' calculation. The Permittee if so desired can subtract the amount of methane observed during the VOC stack test from the TOC to calculate the non-methane VOC emissions.

The Permittee shall perform stack tests of the Reheat Furnace stack S-1, within one year of the latest valid compliance demonstration of the limits for PM/PM10, CO and VOC.

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, OAQ, 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.1 and D.2 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 melt shop has applicable compliance monitoring conditions as specified below:
 - (a) The Permittee shall maintain a continuous opacity monitoring system to measure opacity from the melt shop baghouse stack (S-2).
 - (1) In the event that a breakdown of a continuous opacity monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
 - (2) Whenever a continuous opacity monitor (COM) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup COM shall be brought online within four (4) hours of shutdown of the primary COM, if possible. If this is not possible, visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of one (1) hour beginning four (4) hours after the start of the malfunction or down time.
 - (A) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.

- (B) Method 9 opacity readings shall be repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.
 - (C) All of the opacity readings during this period shall be reported in the Quarterly Deviation and Compliance Monitoring Reports.
- (b) The Permittee shall record the total static pressure drop across the baghouse controlling the melt shop at least once per shift when the melt shop is in operation when the melt shop operation, is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
 - (c) The Permittee shall inspect all bags controlling the melt shop each calendar quarter when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.
 - (d) The Permittee shall check and record on a once-per-shift basis the furnace (EAF) static pressure and either:
 - (1) check and record the control system fan motor amperes and damper positions on a once-per-shift basis; or
 - (2) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or
 - (3) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and records damper positions on a once-per-shift basis.
 - (4) The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ± 10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The IDEM, OAQ, or the U.S. EPA may require the Permittee to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of 40 CFR Part 60, Appendix A.

These monitoring conditions are necessary because the baghouse for the melting process must operate properly to ensure compliance with PM/PM10 and Visible Emission BACT Emission Limits, 40 CFR 60.274(a) (EAF NSPS) and 326 IAC 2-7 (Part 70).

- 2. The Hot Strip Mill Reheat Furnace has applicable compliance monitoring conditions as specified below:
 - (a) Visible emission notations are not required for the reheat furnace SCR stack, because the reheat furnace uses natural gas as the only fuel.
 - (b) The Permittee shall install, calibrate, certify, operate and maintain a Continuous Emissions Monitoring System (CEMS) for NO_x for the Reheat Furnace stack in accordance with 326 IAC 3-5-2 through 326 IAC 3-5-7, prior to June 11, 2004 per

Amendment 127-9642-00036, issued on May, 30, 2003.

- (1) The CEMS shall measure NOx emissions rates in pounds per hour to demonstrate compliance with the limitations established in the BACT analysis and set forth in the permit when the reheat furnace is in operation. The Permittee shall measure the amount of natural gas consumed in terms of million cubic feet per hour at the reheat furnace during the operation. To demonstrate compliance with the NOx limits, the source shall take an average of the pounds of NOx per million cubic feet of natural gas used and pounds of NOx per hour over a three (3) operating hour period. The source shall maintain records of the emissions in pounds of NOx per million cubic feet of natural gas and pounds of NOx per hour.
 - (2) The Permittee shall determine compliance with Condition D.2.6, using data from the NOx CEMS, the fuel flow meter, and Method 19 calculations.
 - (3) The Permittee shall submit to IDEM, OAQ, within ninety (90) days after monitor installation, a complete written Monitoring Plan.
 - (4) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.
- (c) The Permittee shall install, calibrate, certify and operate continuous emissions monitors for carbon dioxide or oxygen at each location where nitrogen oxide emissions are monitored.

These monitoring conditions are necessary because the SCR for the reheat furnace must operate properly to ensure compliance with 326 IAC 2-2-3 (PSD) NOx (BACT) and 326 IAC 2-7 (Part 70).

Conclusion

The operation of this Steel Mini-Mill shall be subject to the conditions of the attached proposed Part 70 Permit No. T127-9691-00036.