



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: December 21, 2007
RE: Munster Steel Company / 089-25115-00090
FROM: Matthew Stuckey, Deputy Branch 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 according to IC 13-15-6-3, 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 and IC 13-15-6-1 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, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

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

Enclosures
FNPER.dot12/03/07



Mitchell E. Daniels, Jr.
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100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
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Federally Enforceable State Operating Permit OFFICE OF AIR QUALITY

**Munster Steel Company
9505 Calumet Ave.
Munster, Indiana 46321**

(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. 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 2-8 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.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 FESOP under 326 IAC 2-8.

Operation Permit No.: F089-25115-00090	
Original signed by:	Issuance Date: December 21, 2007
	Expiration Date: December 21, 2012
Matthew Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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 2-8-3(b)]

The Permittee owns and operates a stationary structural and miscellaneous steel fabricating plant.

Source Address:	9505 Calumet Ave., Munster, Indiana 46321
Mailing Address:	9505 Calumet Ave., Munster, Indiana 46321
General Source Phone Number:	(219) 924-5198
SIC Code:	3411
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) paint booth, coating structural steel, identified as SCR-01, constructed in 1960, with a maximum capacity of 12.0 gallons of coating per hour, utilizing airless spray, with a dry filter for particulate control. The physical and operational design limits coating to 1,830 square feet of structural metal per hour. The paint booth exhausts through vent SCV1.
- (b) One (1) welding/flame-cutting operation, constructed in 1972 and modified in 2006, consisting of two (2) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute; one (1) submerged arc welding station with a maximum capacity of 25.2 inches of wire per minute; four (4) metal inert gas welding stations with a maximum hourly capacity of 22 inches of wire per minute, seventeen (17) stick welding stations with a maximum of 40 electrodes per hour, and one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute.
- (c) One (1) blasting operation, identified as Blast-02, originally constructed in 1970 using sand as the abrasive, modified in 1987 to use Black Beauty Grit, with a nozzle internal diameter of 0.5 inches and a nozzle pressure of 100 pounds per square inch, with an abrasive throughput of 2,044 pounds per hour, controlled by an enclosure and venting inside the building. Blast-02 has a capacity of blasting 0.5 feet per minute of structural steel with a weight of approximately 5.025 tons per hour (335 pounds per foot).
- (d) One (1) Pangborn blast machine, identified as Blast-01, constructed in 2002, with a maximum abrasive input of 120,000 pounds of steel shot per hour, controlled by a cyclone/cartridge filter system (#2 BDC), and venting inside the building. Blast-01 has a capacity of blasting 1.5 feet per minute of structural steel with a weight of 15.075 tons per hour (335 pounds per foot).

- (e) One (1) plasma/oxy-fuel drill machine, identified as #3 OFD, constructed in 2002, with a maximum cutting rate of 600 inches per hour for 2 inches thick steel, controlled by a cyclone/cartridge filter system (#4 TD), and venting inside the building.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour. The combined maximum capacity of natural gas combustion sources is 4.81 MMBtu/hr.
 - (1) Seven (7) natural gas-fired furnaces, six (6) were constructed in 1998 and one (1) was constructed in 2003 [326 IAC 6.8-1-2]; and
 - (2) Forty six (46) natural gas-fired radiant heaters, constructed in 1985 [326 IAC 6.8-1-2]; and
 - (3) Three (3) natural gas-fired wall unit radiant heaters, constructed in 1985 [326 IAC 6.8-1-2].
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons, including one (1) gasoline storage tank, constructed in 1985, with a maximum storage capacity of 500 gallons and an annual throughput of 3,000 gallons [326 IAC 8-9].

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

-
- (a) This permit, F089-25115-00090, 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 of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal 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, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-8-6]

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 and the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-8-4(4)]

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 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1). 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 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (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 an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (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 no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (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 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-8-12]

- (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 except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or 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: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

Telephone Number: 574-245-4870

Telephone Number: 1-800-753-5519

Facsimile Number: 574-245-4877

and for the Northwest Regional Office;

Telephone Number: 1-888-209-8892 (ask for Office of Air Quality, Compliance Section)

Telephone Number: 219-757-0265 (ask for Air Compliance Section)

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

MC 61-53 IGCN 1003

Indianapolis, Indiana 46204-2251

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

The notice fulfills the requirement of 326 IAC 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.

- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) 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 2-8 and any other applicable rules.
 - (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) 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.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

- (a) All terms and conditions of permits established prior to F089-25115-00090 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 2-8-3(h) and 326 IAC 2-8-9.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating 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 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 2-8-8(a)]
- (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 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (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 2-8-3. 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) 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) 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 2-8 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.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) 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 approval required by 326 IAC 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make 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 2-8-15(b)(2), (c)(1), and (d).
- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at 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 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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 FESOP 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][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) 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 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period.
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period; and
 - (4) The potential to emit VOC from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

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

C.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.

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.

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).

C.6 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
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.

Testing Requirements [326 IAC 2-8-4(3)]

C.7 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 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 2-8-4][326 IAC 2-8-5(a)(1)]

C.9 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.10 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.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Risk Management Plan [326 IAC 2-8-4] [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.13 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal

or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (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 twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 Emission Statement [326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit an emission statement by July 1 following a calendar year when the source emits oxides of nitrogen or volatile organic compounds into the ambient air equal to or greater than twenty-five (25) tons. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) paint booth, coating structural steel, identified as SCR-01, constructed in 1960, with a maximum capacity of 12.0 gallons of coating per hour, utilizing airless spray, with a dry filter for particulate control. The physical and operational design limits coating to 1,830 square feet of structural metal per hour. The paint booth exhausts through vent SCV1.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Emission Offset Minor and FESOP Limit [326 IAC 2-3] [326 IAC 2-8]

- (a) Pursuant to T089-4292-00090 and 326 IAC 2-8, the total VOC input to paint booth SCR-01 and the associated clean-up activities shall be less than twenty-four and five-tenths (24.5) tons per twelve (12) consecutive month period.
- (b) The input of individual HAP to paint booth SCR-01 and its associated clean-up activities shall not exceed 9.00 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (c) The total HAP input to to paint booth SCR-01 and its associated clean-up activities shall not exceed 23.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits will render the requirements of 326 IAC 2-3 (Emission Offset) and 326 IAC 2-7 (Part 70 Permits) not applicable.

D.1.2 Particulate Emission Limitation [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (Particulate emission limitations; fuel combustion steam generators, asphalt concrete plant, grain elevators, foundries, mineral aggregate operations; modification by commissioner), particulate matter (PM) emissions from the paint booth (SCR-01) shall not exceed 0.03 grain per dry standard cubic foot (dscf).

D.1.3 Volatile Organic Compounds [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of three and five tenths (3.5) pounds of VOC per gallon of coating excluding water from the paint booth SCR-1.
- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Compliance Determination Requirements

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data

sheets. IDEM, OAQ, reserves the authority to determine-compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Pursuant to 326 IAC 8-1-2(a)(7), the source shall comply using a daily average. The source shall record the amount of each coating used each day. The daily volume-weighted VOC content is calculated using the following equation:

$$A = (\sum C \times U) / (\sum U)$$

Where:

A = Volume weighted average (pounds VOC/gallon) less water as applied;
C = VOC content of the coating (pounds VOC/gallon) less water as applied; and
U = Usage rate of the coating (gallons/day).

If for a given day, all coating materials used in the metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.3, then the Permittee shall not be required to perform the daily averaging calculation for that operation on that day.

D.1.5 Volatile Organic Compounds (VOC) Emissions Determination

Compliance with Condition D.1.1 shall be determined by calculating the VOC emissions associated with each coating applied by paint booth SCR-01 using the following equation:

$$VOC = \sum CU \times D \times W\%V \times 1 / 2000$$

where:

VOC = Total VOC emissions (tons/month) for all coatings.
CU = Total coating use (gallons/month) of each coating.
D = Density (pounds coating/gallon coating) of each coating.
W%V = Weight percent VOC (pounds VOC/pounds coating) of each coating.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.6 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth vent while the booth is in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the vent and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.7 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Conditions D.1.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC and HAP content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on monthly basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The cleanup solvent usage for each month; and
 - (4) The total VOC and HAP usage for each month.
- (b) When coating materials used in a metal surface coating operation are not in compliance with the VOC content limits contained in Condition D.1.3, then the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.1.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The volume weighted average VOC content of the coatings used for each day. If for a given day;
 - (4) The cleanup solvent usage for each day; and
 - (5) The total VOC usage for each day.
- (c) When coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.3, then the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.1.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (1) The VOC content of each coating material and solvent used.
- (2) The amount of coating material and solvent less water used on daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
- (d) To document compliance with Condition D.1.6, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.8 Reporting Requirements

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

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) One (1) welding/flame-cutting operation, constructed in 1972 and modified in 2006, consisting of two (2) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute; one (1) submerged arc welding station with a maximum capacity of 25.2 inches of wire per minute; four (4) metal inert gas welding stations with a maximum hourly capacity of 22 inches of wire per minute, seventeen (17) stick welding stations with a maximum of 40 electrodes per hour, and one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute.
- (c) One (1) blasting operation, identified as Blast-02, originally constructed in 1970 using sand as the abrasive, modified in 1987 to use Black Beauty Grit, with a nozzle internal diameter of 0.5 inches and a nozzle pressure of 100 pounds per square inch, with an abrasive throughput of 2,044 pounds per hour, controlled by an enclosure and venting inside the building. Blast-02 has a capacity of blasting 0.5 feet per minute of structural steel with a weight of approximately 5.025 tons per hour (335 pounds per foot).
- (d) One (1) Pangborn blast machine, identified as Blast-01, constructed in 2002, with a maximum abrasive input of 120,000 pounds of steel shot per hour, controlled by a cyclone/cartridge filter system (#2 BDC), and venting inside the building. Blast-01 has a capacity of blasting 1.5 feet per minute of structural steel with a weight of 15.075 tons per hour (335 pounds per foot).
- (e) One (1) plasma/oxy-fuel drill machine, identified as #3 OFD, constructed in 2002, with a maximum cutting rate of 600 inches per hour for 2 inches thick steel, controlled by a cyclone/cartridge filter system (#4 TD), and venting inside the building.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Emission Limitation [326 IAC 6.8-1-2(a)]

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the welding/flame-cutting operation, the pangborn blast machine (Blast-01) shall not exceed to 0.03 grain per dry standard cubic foot of exhaust air.

D.2.2 Particulate Emission Limitation [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Blasting Operation (Blast-02) shall not exceed 12.1 lbs/hr when operating at a process weight rate of 5.025 tons/hr.

D.2.3 Particulate Emission Limitation [326 IAC 2-2] [326 IAC 2-8]

The PM emissions shall not exceed the emission limits listed below:

- (a) The pangborn blast machine (Blast-01) PM emissions shall not exceed 0.90 lbs/hr.
- (b) The plasma/oxy-fuel drill machine (#3 OFD) PM emissions shall not exceed 0.90 lbs/hr.
- (c) The blasting operation (Blast-02) PM emissions shall not exceed 12.1 lbs/hr.
- (d) The pangborn blast machine (Blast-01) PM10 emissions shall not exceed 1.80 lbs/hr.

- (e) The plasma/oxy-fuel drill machine (#3 OFD) PM10 emissions shall not exceed 1.80 lbs/hr.
- (f) The blasting operation (Blast-02) PM10 emissions shall not exceed 12.1 lbs/hr.

Compliance with the above limits and Condition D.1.2 limits combined with PM/PM10 emissions from the other emission units at the source shall limit source wide PM/PM10 emissions to less than 100 tons per year and render 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.2.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Compliance Determination Requirements

D.2.5 Particulate Control

- (a) Pursuant to T089-4292-00090, issued on March 25, 2002, and in order to comply with Conditions D.2.1, D.2.2, and D.2.3 the dust collector for particulate control shall be in operation and control emissions from the Pangborn blast machine (Blast-01) and the plasma/oxy-fuel drill machine (#3 OFD) at all times that the Pangborn blast machine (Blast-01) and the plasma/oxy-fuel drill machine (#3 OFD) are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (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.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.2.6 Parametric Monitoring

The Permittee shall record the pressure drop across the dust collector (#2 BDC) used in conjunction with the Pangborn blast machine (Blast-01), and the plasma/oxy-fuel drill machine (#3 OFD), at least once per day when the Pangborn blast machine (Blast-01) and the plasma/oxy-fuel drill machine (#3 OFD) are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. 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 - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure drop shall comply with Section C - 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.2.7 Broken or Failed Bag Detection

- (a) For a single compartment baghouses controlling emissions from a process operated continuously, 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 shall 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).

- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. 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).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.2.8 Record Keeping Requirement

- (a) To document compliance with Condition D.2.6, the Permittee shall maintain daily records of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description:

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour. The combined maximum capacity of natural gas combustion sources is 4.81 MMBtu/hr.
- (1) Seven (7) natural gas-fired furnaces, six (6) were constructed in 1998 and one (1) was constructed in 2003 [326 IAC 6.8-1-2]; and
 - (2) Forty six (46) natural gas-fired radiant heaters, constructed in 1985 [326 IAC 6.8-1-2]; and
 - (3) Three (3) natural gas-fired wall unit radiant heaters, constructed in 1985 [326 IAC 6.8-1-2].

(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 2-8-4(1)]

D.3.1 Particulate Emission Limitation [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2(b)(2), the PM emission from the seven (7) natural gas-fired furnaces, the forty six (46) natural gas-fired radiant heaters, and the three (3) natural gas-fired wall unit radiant heaters shall not exceed 0.15 lb/MMBtu.

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Munster Steel Company
Source Address: 9505 Calumet Ave., Munster, Indiana 46321
Mailing Address: 9505 Calumet Ave., Munster, Indiana 46321
FESOP Permit No.: F089-25115-00090

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:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Munster Steel Company
Source Address: 9505 Calumet Ave., Munster, Indiana 46321
Mailing Address: 9505 Calumet Ave., Munster, Indiana 46321
FESOP Permit No.: F089-25115-00090

This form consists of 2 pages

Page 1 of 2

- | |
|---|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16 |
|---|

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: Munster Steel Company
Source Address: 9505 Calumet Ave., Munster, Indiana 46321
Mailing Address: 9505 Calumet Ave., Munster, Indiana 46321
FESOP Permit No.: F089-25115-00090
Facility: Paint booth (SCR-01)
Parameter: VOC Input
Limit: The total VOC input to paint booth SCR-01 and the associated clean-up activities shall be less than twenty-four and five-tenths (24.5) tons per twelve (12) consecutive month period.

YEAR: _____

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Munster Steel Company
Source Address: 9505 Calumet Ave., Munster, Indiana 46321
Mailing Address: 9505 Calumet Ave., Munster, Indiana 46321
FESOP Permit No.: F089-25115-00090
Facility: Paint booth (SCR-01)
Parameter: Individual HAP input
Limit: The individual HAP input to paint booth SCR-01 and the associated clean-up activities shall be less than nine (9.00) tons per twelve (12) consecutive month period.

YEAR: _____

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Munster Steel Company
Source Address: 9505 Calumet Ave., Munster, Indiana 46321
Mailing Address: 9505 Calumet Ave., Munster, Indiana 46321
FESOP Permit No.: F089-25115-00090
Facility: Paint booth (SCR-01)
Parameter: Total HAP input
Limit: The total HAP input to paint booth SCR-01 and the associated clean-up activities shall be less than twenty-three (23.0) tons per twelve (12) consecutive month period.

YEAR: _____

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Munster Steel Company
 Source Address: 9505 Calumet Ave., Munster, Indiana 46321
 Mailing Address: 9505 Calumet Ave., Munster, Indiana 46321
 FESOP Permit No.: F089-25115-00090

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. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked ΔNo deviations occurred this reporting period@.</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name: Munster Steel Company
Source Location: 9505 Calumet Ave., Munster, Indiana 46321
County: Lake
SIC Code: 3441
Operation Permit No.: F089-25115-00090
Permit Reviewer: ERG/BL

On November 14, 2007, the Office of Air Quality (OAQ) had a notice published in the Post Tribune newspaper in Merrillville, in Lake County, Indiana, stating that Munster Steel Company had applied for a Federally Enforceable State Operating Permit (FESOP) to continue to operate stationary structural and miscellaneous steel fabricating plant with control. 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 thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Munster Steel Company

On November 16, Jeanne L. Robbins with Munster Steel Company submitted comments on the proposed FESOP. The summary of the comments is as follows. Changes made as a result of these comments are shown throughout this addendum. New language is in **bold** while deleted language is in ~~strikeout~~. The Table of Contents has been updated as necessary.

Comment 1:

The descriptive information contained in Section A.2(a) of the draft FESOP lists a maximum capacity of 12.0 gallons of coating per hour (183 square feet per hour) for the one (1) paint booth, coating structural steel, identified as SCR-01.

This descriptive information is incorrect and does not accurately reflect the limitations in physical and operational design at the source. The duration of a painting batch cycle, limits the quantity of structural and miscellaneous steel that can be fabricated, only 1,830 square feet can be painted in a given hour. Therefore the booth cannot paint more than 1,830 square feet. Because of these limitations, the maximum coating capacity of the booth is 2.00 gallons per hour, which can coat 1,830 square feet of structural metal per hour. Revise the descriptive information contained in Section A.2(a) to modify the maximum capacity.

Response to Comment 1:

The description in Section A.2(a) has been changed to reflect the maximum capacity of the paint booth. IDEM also incorrectly described the paint booth exhaust. The paint booth exhausts through a vent not a stack. The description in A.2 and Section D.1 has been revised.

The calculations that were on public notice assumed a maximum capacity of 1.00 gallon to coating per 183 square feet of structural metal per hour. The change in the amount of coating, resulted in an increase in the potential to emit (PTE) of both HAP and VOC from booth SCR-01. To render the requirements of 326 IAC 2-7 (Part 70 Permits) are not applicable, HAP limits have been incorporated into Condition D.1.1. The rule avoidance statement in Condition D.1.1 has been clarified by IDEM, OAQ. Note that this facility was already subject to a VOC limit.

IDEM has modified the reporting requirements in Condition D.1.7 and Quarterly Report forms associated with the HAP limits. These requirements are necessary for the Permittee to document compliance with the HAP limits. The reporting requirements and additional forms are discussed in the response to Munster Steel Company Comment 3.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) paint booth, coating structural steel, identified as SCR-01, constructed in 1960, with a maximum capacity of 12.0 gallons of coating per hour (~~183 square feet per hour~~), utilizing airless spray, with a dry filter for particulate control. **The physical and operational design limits coating to 1,830 square feet of structural metal per hour.** The paint booth exhausts through ~~stack~~ vent SCV1.

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) paint booth, coating structural steel, identified as SCR-01, constructed in 1960, with a maximum capacity of 12.0 gallons of coating per hour (~~183 square feet per hour~~), utilizing airless spray, with a dry filter for particulate control. **The physical and operational design limits coating to 1,830 square feet of structural metal per hour.** The paint booth exhausts through ~~stack~~ vent SCV1.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Emission Offset Minor and FESOP Limit [326 IAC 2-3] [326 IAC 2-8]

- (a)** Pursuant to T089-4292-00090 and 326 IAC 2-8, the total VOC input to paint booth SCR-01 and the associated clean-up activities shall be less than twenty-four and five-tenths (24.5) tons per twelve (12) consecutive month period.
- (b)** **The input of individual HAP to paint booth SCR-01 and its associated clean-up activities shall not exceed 9.00 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**
- (c)** **The total HAP input to to paint booth SCR-01 and its associated clean-up activities shall not exceed 23.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**

~~Therefore~~ **Compliance with these limits will render** the requirements of 326 IAC 2-3 (Emission Offset) and 326 IAC 2-7 (Part 70 Permits) ~~are~~ not applicable.

Comment 2:

Condition D.1.7(a)(3) contains information pertaining to the volume weighted average VOC content compliance requirements of 326 IAC 8-2-9. This language should be relocated to be listed in Condition D.1.3. Revise Condition D.1.3 to add the following paragraph:

- (c) If for a given day, all coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in 326 IAC 8-2-9, then the Permittee shall not be required to maintain records of the volume weighted average VOC content of the coatings used in that operation on that day.

Response to Comment 2:

Condition D.1.3 specifies the VOC limits pursuant to 326 IAC 8-2-9. The necessary compliance and recordkeeping requirements are provided in those respective sections. No change to the permit was made based on this comment.

Comment 3:

Permit condition D.1.7 requires the Permittee maintain daily records to document compliance with Conditions D.1.1 and D.1.3. Munster Steel Company believes that monthly record keeping would be more appropriate. The following paragraphs should be revised: D.1.7(a)(2), D.1.7(a)(4) and D.1.7(a)(5).

Response to Comment 3:

To document compliance with Condition D.1.1, records shall be maintained to establish compliance with the VOC input limit for paint booth SCR-01 on a monthly basis. Additional changes have been to Condition D.1.7 because HAP limits have been added to Condition D.1.1 (see discussion in response to Comment 1 above).

To document compliance with Condition D.1.3, records shall be maintained to establish compliance with 326 IAC 8-2-9 on a daily basis. The following changes were made in the permit:

D.1.7 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.3, the Permittee shall maintain records in accordance with (1) through ~~(5)-(4)~~ below. Records maintained for (1) through ~~(5)-(4)~~ shall be taken ~~daily~~ **monthly** and shall be complete and sufficient to establish compliance with the VOC usage limits and ~~or the VOC emission limits~~ established in Conditions D.1.1 and D.1.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC **and HAP** content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on ~~daily~~ **monthly** basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) ~~The volume weighted average VOC content of the coatings used for each day. If for a given day, all coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.2, then the Permittee shall not be required to maintain records of the volume weighted average VOC content of the coatings used in that operation on that day;~~
 - ~~(4) The cleanup solvent usage for each day~~ **month; and**
 - ~~(5)~~**(4)** The total VOC **and HAP** usage for each day ~~month;~~ **and**
 - ~~(6) The weight of VOCs emitted for each month.~~
- (b) **When coating materials used in a metal surface coating operation are not in compliance with the VOC content limits contained in Condition D.1.3, then the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.1.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.**
- (1) The VOC content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The volume weighted average VOC content of the coatings used for

each day;

- (4) The cleanup solvent usage for each day; and
 - (5) The total VOC usage for each day.
- (c) When coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.3, then the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.1.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on monthly basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
- ~~(b)~~(d) To document compliance with Condition D.1.6, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.
- ~~(e)~~(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

...

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

FESOP Quarterly Report

Source Name: Munster Steel Company
Source Address: 9505 Calumet Ave., Munster, Indiana 46321
Mailing Address: 9505 Calumet Ave., Munster, Indiana 46321
FESOP Permit No.: F089-25115-00090
Facility: Paint booth (SCR-01)
Parameter: Individual HAP input
Limit: The individual HAP input to paint booth SCR-01 and the associated clean-up activities shall be less than nine (9.00) tons per twelve (12) consecutive month period.

YEAR: _____

...

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Munster Steel Company
Source Address: 9505 Calumet Ave., Munster, Indiana 46321
Mailing Address: 9505 Calumet Ave., Munster, Indiana 46321
FESOP Permit No.: F089-25115-00090
Facility: Paint booth (SCR-01)
Parameter: Total HAP input
Limit: The total HAP input to paint booth SCR-01 and the associated clean-up activities shall be less than twenty-three (23.0) tons per twelve (12) consecutive month period.

YEAR: _____

...

Comment 4:

Condition D.2.6(a) incorrectly identifies the Pangborn blast machine as (Blast-01) and (Blast-02). Revise the last line of Condition D.2.6(a) to list the Pangborn blast machine as (Blast-01).

Response to Comment 4:

The following changes have been made to the permit as a result of this comment:

D.2.6 Particulate Control

- (a) Pursuant to T089-4292-00090, issued on March 25, 2002, and in order to comply with Conditions D.2.1, D.2.2, and D.2.3 the dust collector for particulate control shall be in operation and control emissions from the Pangborn blast machine (Blast-01) and the plasma/oxy-fuel drill machine (#3 OFD) at all times that the Pangborn blast machine ~~(Blast-02)~~ **(Blast-01)** and the plasma/oxy-fuel drill machine (#3 OFD) are in operation.

Comment 5:

The dust collector identified as #2 BDC, used in conjunction with the Pangborn blast machine and the dust collector identified as #4 TD, used in conjunction with the plasma/oxy-fuel drill machine both exhaust filtered air inside the building. There are no direct external exhausts for this equipment. IDEM has historically not required parametric monitoring for internal dust collection systems that do not discharge outside the building. Parametric monitoring of these internal collection systems and the associated recordkeeping requirements are overly burdensome. Remove Conditions D.2.7 and D.2.9 from the permit.

Response to Comment 5:

Although the dust collector vents inside the building IDEM still believes it is necessary to monitor pressure drop across the dust collector because the dust collector must operate correctly to comply with the limits in Conditions D.2.1 and D.2.3. No change to the permit was made based on this comment.

IDEM has also corrected the compliance monitoring rule citation in Section D.2 of the permit.

Compliance Monitoring Requirements ~~[326 IAC 2-7-5(1)]~~~~[326 IAC 2-7-6(1)]~~~~[40 CFR 64]~~~~[326 IAC 2-8-4]~~~~[326 IAC 2-8-5(a)(1)]~~

Upon Further review, IDEM, OAQ has made the following minor revisions to the permit:

1. The following typographical errors were corrected by IDEM, OAQ.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a ~~stationary~~ stationary structural and miscellaneous steel fabricating plant.

...

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

...

- (b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

...

D.2.3 Particulate Emission Limitation [326 IAC 2-2] [326 IAC 2-8]

The PM emissions shall not exceed the emission limits listed below:

...

- (b) The plasma/~~oxy-fuel~~ **oxy-fuel** drill machine (#3 OFD) PM emissions shall not exceed 0.90 lbs/hr.

...

- (e) The plasma/~~oxy-fuel~~ **oxy-fuel** drill machine (#3 OFD) PM10 emissions shall not exceed 1.80 lbs/hr.

2. As discussed above, IDEM incorrectly described the paint booth exhaust in Section A.2(a). Section D.1.6 in the permit has also been revised to correct the description of the booth exhaust and correct language since the source operates only one paint booth.

D.1.6 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth ~~stack vent~~ while ~~one or more of the booths are~~ **is** in operation. If a condition exists which should result in a response step, the Permittee shall take

reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the ~~stack~~ **vent** and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
3. The compliance determination requirements in the last paragraph of Condition D.1.4 incorrectly cited the particulate emission limitation requirement, Condition D.1.2. This reference has been corrected.

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]

...

If for a given day, all coating materials used in ~~a the~~ **the** metal surface coating operation are in compliance with the VOC content limits contained in Condition ~~D.1.2~~ **D.1.3**, then the Permittee shall not be required to perform the daily averaging calculation for that operation on that day.

4. Both permit Conditions D.2.2 and D.2.4, pursuant to 326 IAC 6-3, limit the allowable particulate emission of blasting operation (Blast-02). IDEM has removed Condition D.2.4, modified the Table of Contents, and adjusted condition numbers through Section D.2 to reflect these changes.

D.2.4 Particulate [326 IAC 6-3-2]

~~Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the blasting operation (Blast-02) shall not exceed 12.1 lbs/hr when operating at a process weight rate of 5.025 tons per hour.~~

The pounds per hour limitation was calculated with the following equation:

~~Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:~~

$$E = 4.10 P^{0.67} \text{ where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

...

D.2.9D.2.8 Record Keeping Requirement

- (a) To document compliance with Condition ~~D.2.7~~ **D.2.6**, the Permittee shall maintain daily records of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

5. IDEM incorrectly references the Northwest Regional Office in several conditions in the B and C sections of the permit. IDEM has removed these references as shown below. IDEM has also added the telephone and facsimile numbers for the Northwest Regional Office to Condition B.12(b)(4).

B.4 Enforceability [326 IAC 2-8-6]

- (a) — 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 and ~~Northwest Regional Office~~, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
- (b) — ~~Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by the Northwest Regional Office.~~

...

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ and ~~Northwest Regional Office~~, within a reasonable time, any information that IDEM, OAQ and ~~Northwest Regional Office~~ 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ and ~~Northwest Regional Office~~ copies of records required to be kept by this permit.

...

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (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 no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~

- (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, and ~~Northwest Regional Office~~ 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 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ and ~~Northwest Regional Office~~ may require to determine the compliance status of the source.

...

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and ~~Northwest Regional Office~~ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

...

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

- (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ and ~~Northwest Regional Office~~ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and ~~Northwest Regional Office~~. IDEM, OAQ and ~~Northwest Regional Office~~ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...

B.12 Emergency Provisions [326 IAC 2-8-12]

...

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or 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:

...

- (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: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

Telephone Number: 574-245-4870

Telephone Number: 1-800-753-5519

Facsimile Number: 574-245-4877

and for the Northwest Regional Office;

Telephone Number: 1-888-209-8892 (ask for Office of Air Quality, Compliance Section)

Telephone Number: 219-757-0265 (ask for Air Compliance Section)

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

MC 61-53 IGCN 1003

Indianapolis, Indiana 46204-2251

~~Northwest Regional Office~~

~~8315 Virginia St., Ste. 4~~

~~Merrillville, Indiana 46410~~

...

- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not

cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ and ~~Northwest Regional Office~~ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

- (f) Failure to notify IDEM, OAQ and ~~Northwest Regional Office~~ 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 2-8 and any other applicable rules.

...

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~

...

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating 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 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ and ~~Northwest Regional Office~~ 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 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ and ~~Northwest Regional Office~~ 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 2-8-8(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ and ~~Northwest Regional Office~~ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ and ~~Northwest Regional Office~~ may provide a shorter time period in the case of an emergency.
[326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and ~~Northwest Regional Office~~ and shall include the information specified in 326 IAC 2-8-3. 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) 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 and ~~Northwest Regional Office~~ on or before the date it is due.
- (c) 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 2-8 until IDEM, OAQ and ~~Northwest Regional Office~~ 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 and ~~Northwest Regional Office~~ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

...

- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~

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, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make 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 2-8-15(b)(2), (c)(1), and (d).

...

- (c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ, Northwest Regional Office, or U.S. EPA is required.

...

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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, Northwest Regional Office, U.S. EPA, or an authorized representative to perform the following:

...

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 1
Merrillville, Indiana 46410~~

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)]
[326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ and Northwest Regional Office 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.

...

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

...

- (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
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~

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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

...

C.7 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ ~~and Northwest Regional Office~~ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ ~~and Northwest Regional Office~~ 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.

...

C.9 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410

...

C.15 Emission Statement [326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit an emission statement by July 1 following a calendar year when the source emits oxides of nitrogen or volatile organic compounds into the ambient air equal to or greater than twenty-five (25) tons. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a

minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or ~~Northwest Regional Office~~ makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or ~~Northwest Regional Office~~ within a reasonable time.

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

C.17 General Reporting Requirements [326 IAC 2-8-4(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~Northwest Regional Office
8315 Virginia St., Ste. 4
Merrillville, Indiana 46410~~
- (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 and ~~Northwest Regional Office~~ on or before the date it is due.

**Appendix A: Emission Calculations
Emissions Summary**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP Addendum: F089-25115-00090
Reviewer: ERG/BL
Date: December 17, 2007

	Potential to Emit Before Control (tons/yr)							
	PM	PM-10	SO ₂	VOC	CO	NOx	Xylene	Total HAPs
Surface Coating Operations	99.9	99.9	-	47.5	-	-	17.0	19.2
Pangborn Blast Machine (Blast-01)	1,122	112	-	-	-	-	-	-
Blasting Operation (Blast-02)	374	37.4	-	-	-	-	-	-
Plasma/Oxy-fuel Drill Machine	51.2	51.2	-	-	-	-	-	0.28
Welding - Flame Cutting	11.5	11.5	-	-	-	-	-	1.53
Combustion	0.04	0.16	0.01	0.11	1.74	2.07	-	0.04
Total	1,659	312	0.01	47.6	1.74	2.07	17.0	21.0

	Limited Potential to Emit (tons/yr)							
	PM	PM-10	SO ₂	VOC	CO	NOx	Xylene	Total HAPs
Surface Coating Operations	10.0	10.0	-	24.5	-	-	9.00	23.0
Pangborn Blast Machine (Blast-01)	3.94	7.88	-	-	-	-	-	-
Blasting Operation (Blast-02)	53.0	53.0	-	-	-	-	-	-
Plasma/Oxy-fuel Drill Machine	3.94	7.88	-	-	-	-	-	0.03
Welding - Flame Cutting	11.5	11.5	-	-	-	-	-	1.53
Combustion	0.04	0.16	0.01	0.11	1.74	2.07	-	0.04
Total	82.4	90.4	0.01	24.6	1.74	2.07	9.00	24.6

**Appendix A: Emission Calculations
VOC Emissions
Surface Coating Activities**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP Addendum: F089-25115-00090
Reviewer: ERG/BL
Date: December 17, 2007

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit) *	Maximum (unit/hr)	Pounds VOC per gallon of coating	Material Usage (gal/hr)	Material Usage (lb/hr)	Potential VOC pounds per hour	Potential VOC pounds per day	PTE of VOC (tons/yr)	PTE of PM, Before Control (ton/yr)	PTE of PM, After Control (ton/yr)	Pounds VOC per Gallon of Solids	Transfer Efficiency*
E61A280 Gray Epoxy Primer	24.9	10.9%	10.9%	66.0%	2.00	1.83	2.71	3.67	91.2	9.94	239	43.5	89.0	8.90	4.11	75%
Potential Emission Rates - Epoxy Gray Primer As Applied											9.94	239	43.5	89.0		
OR																
Carbozinc 11 HS Primer	27.2	8.30%	8.30%	75.0%	2.00	1.83	2.25	3.67	99.5	8.26	198.3	36.2	99.9	9.99	3.00	75%
Potential Emission Rates - Carboz Primer As Applied											8.26	198.3	36.2	99.9		
OR																
HS Red Oxide HS Primer	13.3	20.0%	20.0%	61.0%	2.00	1.83	2.65	3.67	48.6	9.71	233	42.5	42.6	4.26	4.34	75%
Potential Emission Rates - B50NZ3 Red Oxide Primer As Applied											9.71	233	42.5	42.6	4.26	
AND																
Xylene ***	7.18	100%	100%	0%	0.05	1.83	7.18	0.09	0.66	0.66	15.8	2.88	0.00	0.00	NA	100%
Isopropyl Alcohol ***	6.76	100%	100%	0%	0.02	1.83	6.76	0.04	0.25	0.25	5.95	1.09	0.00	0.00	NA	100%
Total Potential Emission Rates for Cleanup Solvents											0.91	21.7	3.97	0.00	0.00	
Potential Emission Rates - Epoxy Gray Primer As Applied; This represents worst case											9.94	239	43.5	99.9	9.99	
Cleanup Solvents											0.91	21.7	3.97	0.00	0.00	
Worst Case Coating + Cleanup Solvent = Potential to Emit											10.8	260	47.5	99.9	10.0	

*One Unit = 1000 sq feet of Structural Metal
 **The particulate control efficiency of dry filters is 90%.
 *** Xylene and Isopropyl Alcohol are used as cleanup solvents only. Pursuant to 326 IAC 8-1-2(a)(7), the source can comply with 326 IAC 8-2-9 (Miscellaneous Metal Coating) using a daily average.

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used

HAZARDOUS AIR POLLUTANTS

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Methanol	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)		
E61A280 Gray Epoxy Primer	24.9	2.00	1.83	0.04%	0%	0%	1.84%	0.17%	0.16	0.00	0.00	7.35	0.68	8.19		
Potential Emission Rates - Epoxy Gray Primer As Applied											0.16	0.00	0.00	7.35	0.68	8.19
OR																
Carbozinc 11 HS Primer	27.2	2.00	1.83	0%	0.01%	0%	0%	0%	0.00	0.04	0.00	0.00	0.00	0.04		
Potential Emission Rates - Carboz Primer As Applied											0.00	0.04	0.00	0.00	0.00	0.04
OR																
HS Red Oxide HS Primer	13.3	2.00	1.83	1.00%	0%	0%	0%	8.00%	2.13	0.00	0.00	0.00	17.03	19.16		
Potential Emission Rates - B50NZ3 Red Oxide Primer As Applied											2.13	0.00	0.00	0.00	17.03	19.2
AND																
Xylene ***	7.18	0.05	1.83	0%	0%	0%	0%	100%	0.00	0.00	0.00	0.00	2.88	2.88		
Isopropyl Alcohol ***	6.76	0.02	1.83	0%	0%	0%	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00		
Total Potential Emission Rates for Cleanup Solvents											0.00	0.00	0.00	0.00	2.88	2.88
Cleanup Solvents											0.00	0.00	0.00	0.00	0.00	2.88
Worst Case HAP Emission Rates ***											2.13	0.00	0.00	0.00	17.03	19.2

Methyl Isobutyl Ketone - MIBK
 *** Airless Spray Application and Manual Cleaning - Mutually Exclusive Coating Application; Isopropyl alcohol is the only cleanup solvent used when coating B50NZ3 Red Oxide Primer

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs - Add Worst Case Coating to All Cleanup Solvents

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Pangborn Blast Machine (Blast-01) and the Blasting Operation (Blast-02)

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP Addendum: F089-25115-00090
Reviewer: ERG/BL
Date: December 17, 2007

Unit ID	Max. Steel Blasted (tons/hr)	PM Emission Factor Before Control (lbs/ton)	PM10 Emission Factor Before Control (lbs/ton)	PTE of PM Before Control (ton/yr)	PTE of PM10 Before Control (ton/yr)	Control Device	Control Efficiency	PTE of PM After Control (tons/yr)	PTE of PM10 After Control (tons/yr)	326 IAC 6.8-1-2 PM Limit (gr/dscf)	327 IAC 6.8-1-2 PM Limit (lbs/hr)	328 IAC 6.8-1-2 PM Limit (tons/yr)	326 IAC 6-3-2 PM Limit (lb/hr)	326 IAC 6-3-2 PM Limit (tons/yr)	327 IAC 2-2 PM10 Limit (lbs/hr)	328 IAC 2-2 PM10 Limit (tons/yr)
Blast-01 *	15.1	17.0	1.70	1,122	112	Cyclone/ cartridge filter	99.9%	1.12	0.11	0.03	0.90	3.94	25.2	-	1.80	7.88
Blast-02 **	5.03	17.0	1.70	374	37.4	Enclosure	99.9%	0.37	0.04	0.03	13.8	60.5	12.1	53.0	13.8	60.5
Total				1,497	150			1.50	0.15			64.5				68.4

* The capacity of the Pangborn blast unit (Blast-01) is 1.5 feet per minute of structural steel with a weight of 335 lbs/foot. This results in a process weight rate of approximately 502.5 lbs/minute or 15.075 tons/hr. The device is controlled by a cyclone/cartridge filter system. The exhaust gas flowrate is 3,500 cfm.

** The blasting operation (Blast-02) has a capacity of blasting approximately 0.5 feet per minute of structural steel with a weight of approximately 335 lbs/foot. This results in a process weight rate of 167.5 lbs/minute or 5.025 tons/hr. There blasting operation is operated inside an enclosed room. There are no direct external exhausts and no control equipment. The size of the room is 80 feet long, 28 feet wide, and 24 feet tall. A PM emission limit has been established to avoid 326 IAC 2-2 (PSD), by assuming all blasting waste would be evacuated with entire volume of air from the enclosed room.

Emission factor is from EPA FIRE Version 6.25 - Gray Iron Foundries, Grinding/Cleaning (SCC: 3-04-003-40).

Methodology

PM/PM10 Potential to Emit (lbs/hr) = Max. Abrasive Usage (tons/hr) * PM/PM10 Emission Factor (lbs/ton)
PM/PM10 Potential to Emit (tons/yr) = Max. Abrasive Usage (tons/hr) * PM/PM10 Emission Factor (lbs/ton) * 8,760 hrs/yr * 1 ton/2,000 lbs
PM/PM10 Potential to Emit After Control (lbs/hr) = PM/PM Potential to Emit Before Controls (lbs/ton) * (1 - Control Efficiency)
PM/PM10 Potential to Emit After Control (tons/yr) = PM/PM Potential to Emit Before Controls (tons/yr) * (1 - Control Efficiency)
PM Limit (lb/hr) = PM Emission Factor Before Control (lbs/ton) * Max. Abrasive Usage (tons/hr) * (1 - Control Efficiency)
PM10 Limit (lb/hr) = PM10 Emission Factor Before Control (lbs/ton) * Max. Abrasive Usage (tons/hr) * (1 - Control Efficiency)

**Appendix A: Emission Calculations
From the Plasma/Oxy-fuel Drill Machine (#3 OFD)**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP Addendum: F089-25115-00090
Reviewer: ERG/BL
Date: December 17, 2007

PROCESS	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick) *				UNCONTROLLED POTENTIAL TO EMIT (lbs/hr)				HAPS (lbs/hr) Total HAPs
				PM = PM10	Mn	Ni	Cr	PM / PM10	Mn	Ni	Cr	
FLAME CUTTING												
Oxyacetylene	1	2.00	600	0.16	5.00E-04	1.00E-04	3.00E-04	11.7	0.04	0.01	0.02	0.06
Oxymethane	1	2.00	600	0.08	2.00E-04		2.00E-04	5.87	0.01		0.01	0.03
Plasma*	1	2.00	600	3.90E-03				0.28				

POTENTIAL TO EMIT, BEFORE CONTROL

Potential to Emit Before Controls (lbs/hr)				11.7	0.04	0.01	0.02	0.06
Potential to Emit Before Controls (tons/year)				51.2	0.16	0.03	0.09	0.28

POTENTIAL TO EMIT, AFTER CONTROL

Potential to Emit After Control (lbs/hr)				0.58	3.60E-03	7.20E-04	2.16E-03	0.01
Potential to Emit After Control (tons/year)				2.56	0.02	3.15E-03	0.01	0.03

LIMITED POTENTIAL TO EMIT

326 IAC 6.8-1-2 PM Limit (gr/dscf)				0.03
327 IAC 6.8-1-2 PM Limit (lbs/hr)				0.90
328 IAC 6.8-1-2 PM Limit (tons/yr)				3.94
327 IAC 2-2 PM10 Limit (lbs/hr)				1.80
328 IAC 2-2 PM10 Limit (tons/yr)				7.88

* All emission factors for plasma cutting are from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted).

Therefore, the emission factor for plasma cutting is for 8 mm thick mild steel.

Using AWS average values: (0.25 g/min)/(3.6 m/min) * (0.0022 lb/g)/(39.37 in./m) * (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

The plasma/oxy-fuel drill machine is controlled by a cyclone/cartridge filter system. The PM control efficiency of the device is 95% and the exhaust gas flowrate is 3,500 cfm.

METHODOLOGY

Cutting Process Potential to Emit (lb/hr): # of Stations * Max. Metal Thickness (in) * Max. Cutting Rate (in/min) * 60 min/hr * Emissions Factor (lb/1,000 inches cut, 1 inch thick)

Plasma Cutting Potential to Emit (lb/hr): # of Stations * Max. Cutting Rate (in/min) * 60 min/hr * Emission Factor, (lb/1,000 inch cut, 8 mm thick)

Welding Potential to Emit (lb/hr): # of Stations * Max. Electrode Used (lb/hr/station) * Emission Factor (lb pollutant/lb of electrode used)

Potential to Emit, Before Control (tons/yr) = Emissions (lbs/hr) * 8,760 hrs/year * 1 ton/2,000 lbs

Potential to Emit, After Control (lbs/hr) = Potential to Emit Before Controls (lbs/hr) * (1- Control Efficiency)

Potential to Emit, After Control (tons/yr) = Potential to Emit Before Controls (lbs/hr) * 8,760 hr/yr * 1 ton/2,000 lbs * (1- Control Efficiency)

**Appendix A: Emission Calculations
Welding - Flame Cutting**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP Addendum: F089-25115-00090
Reviewer: ERG/BL
Date: December 17, 2007

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				POTENTIAL TO EMIT (lbs/hr)				HAPS (lbs/hr)	
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr		
WELDING												
Submerged Arc	3	8.19		5.00E-05	0.01			1.23E-03	0.27			0.27
Metal Inert Gas (MIG)(carbon steel)	4	5.00		0.02	3.40E-05			0.48	6.80E-04			6.80E-04
Stick (E7018 electrode)	17	5.00		0.02	9.00E-04			1.79	0.08			0.08
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Propane	1	3.00	12.0	0.162	5.00E-04	1.00E-04	3.00E-04	0.35	1.08E-03	2.16E-04	6.48E-04	1.94E-03

POTENTIAL TO EMIT, UNCONTROLLED

Potential to Emit Uncontrolled (lbs/hr)				2.63	0.349	2.16E-04	6.48E-04	0.35
Potential to Emit Uncontrolled (tons/year)				11.5	1.53	9.46E-04	2.84E-03	1.53

*Emission factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

Emission factors are from AP 42, Chapter 12.19, Submerged Arc Welding, Table 12.19-1 (SCC 3-09-054-10) (1/95).

**Emission factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted).

Therefore, the emission factor for plasma cutting is for 8 mm thick mild steel.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Welding and other flame cutting emission factors are from an internal training session document.

Refer to AP-42, Chapter 12.19 for additional emission factors for welding.

METHODOLOGY

Cutting Process Potential to Emit (lb/hr): # of Stations * Max. Metal Thickness (in) * Max. Cutting Rate (in/min) * 60 min/hr * Emissions Factor (lb/1,000 inches cut, 1 inch thick)

Plasma Cutting Potential to Emit (lb/hr): # of Stations * Max. Cutting Rate (in/min) * 60 min/hr * Emission Factor, (lb/1,000 inch cut, 8 mm thick)

Welding Potential to Emit (lb/hr): # of Stations * Max. Electrode Used (lb/hr/station) * Emission Factor (lb pollutant/lb of electrode used)

Potential to Emit Uncontrolled (tons/yr) = Emissions (lbs/hr) * 8760 hrs/year * 1 ton/2000 lbs

**Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Furnaces and Radiant Heaters**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP Addendum: F089-25115-00090
Reviewer: ERG/BL
Date: December 17, 2007

Heat Input Capacity * MMBtu/hr 4.81

Potential Throughput MMSCF/yr 41.3
--

	Pollutant					
	PM**	PM10**	SO ₂	NOx	VOC	CO
Emission Factor (lb/MMSCF)	1.90	7.60	0.60	100.0 ***see below	5.50	84.0
Potential to Emit (tons/yr)	0.04	0.16	0.01	2.07	0.11	1.74

* Seven (7) natural gas-fired furnaces, forty six (46) natural gas-fired radiant heaters, and three (3) natural gas-fired wall unit radiant heaters.

** PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM combined.

*** Emission Factors for NOx (Uncontrolled) = 100 lb/MMSCF

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July 1998)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMSCF = 1,000,000 Standard Cubic Feet of Gas

Methodology

Potential Throughput (MMSCF/yr) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMSCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMSCF/yr) * Emission Factor (lb/MMSCF)/2,000 lb/ton

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Furnaces and Radiant Heaters**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP Addendum: F089-25115-00090
Reviewer: ERG/BL
Date: December 17, 2007

HAPs - Organics

Emission Factor (lb/MMSCF)	Benzene 2.10E-03	Dichlorobenzene 1.20E-03	Formaldehyde 7.50E-02	Hexane 1.80E+00	Toluene 3.40E-03
Potential to Emit (tons/yr)	4.34E-05	2.48E-05	1.55E-03	3.72E-02	7.03E-05

HAPs - Metals

Emission Factor (lb/MMSCF)	Lead 5.00E-04	Cadmium 1.10E-03	Chromium 1.40E-03	Manganese 3.80E-04	Nickel 2.10E-03
Potential to Emit (tons/yr)	1.03E-05	2.27E-05	2.89E-05	7.85E-06	4.34E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors provided above are from AP 42, Chapter 1.4. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

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

Technical Support Document (TSD) for a Transition to a
Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	Munster Steel Company
Source Location:	9505 Calumet Ave., Munster, Indiana 46321
County:	Lake
SIC Code:	3441
Operation Permit No.:	T089-4292-00090
Operation Permit Issuance Date:	March 25, 2002
Permit Renewal No.:	F089-25115-00090
Permit Reviewer:	ERG/BL

The Office of Air Quality (OAQ) has reviewed a transition to a FESOP application from Munster Steel Company relating to the operation of a stationary structural and miscellaneous steel fabricating plant.

History

This stationary structural and miscellaneous steel fabricating plant has been operating under a Part 70 Permit T089-4292-00090, issued March 25, 2002. Historically, the potential to emit (PTE) of PM10 exceeded major source thresholds as defined by 326 IAC 2-7-1(22). The source has agreed to accept federally enforceable restrictions on annual PM10 emissions to below 100 tons per year, major source thresholds.

Source-wide PTE of hazardous air pollutants (HAPs) as reported in T089-4292-00090 were greater than major source thresholds as defined by 40 CFR 63.2. However, those calculations incorrectly reflected limitations in physical and operational design. Using the revised calculation methodology the PTE of HAP emissions no longer exceed 10 tons per year of any HAP and 25 tons per year of any combination of HAPs. Plant records show that actual emissions of HAP have never exceeded major source thresholds. In 2006, total HAP emissions from this source were 2.33 tons. The FESOP contains HAP limits to maintain the sources synthetic minor status and a VOC limit in order to qualify for a FESOP. At this time, there is no construction planned for this source.

Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) paint booth, coating structural steel, identified as SCR-01, constructed in 1960, with a maximum capacity of 12.0 gallons of coating per hour (183 square feet per hour), utilizing airless spray, with a dry filter for particulate control. The paint booth exhausts through stack SCV1.
- (b) One (1) welding/flame-cutting operation, constructed in 1972 and modified in 2006, consisting of two (2) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute; one (1) submerged arc welding station with a maximum

capacity of 25.2 inches of wire per minute; four (4) metal inert gas welding stations with a maximum hourly capacity of 22 inches of wire per minute, seventeen (17) stick welding stations with a maximum of 40 electrodes per hour, and one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute.

- (c) One (1) blasting operation, identified as Blast-02, originally constructed in 1970 using sand as the abrasive, modified in 1987 to use Black Beauty Grit, with a nozzle internal diameter of 0.5 inches and a nozzle pressure of 100 pounds per square inch, with an abrasive throughput of 2,044 pounds per hour, controlled by an enclosure and venting inside the building. Blast-02 has a capacity of blasting 0.5 feet per minute of structural steel with a weight of approximately 5.025 tons per hour (335 pounds per foot).
- (d) One (1) Pangborn blast machine, identified as Blast-01, constructed in 2002, with a maximum abrasive input of 120,000 pounds of steel shot per hour, controlled by a cyclone/cartridge filter system (#2 BDC), and venting inside the building. Blast-01 has a capacity of blasting 1.5 feet per minute of structural steel with a weight of 15.075 tons per hour (335 pounds per foot).
- (e) One (1) plasma/oxy-fuel drill machine, identified as #3 OFD, constructed in 2002, with a maximum cutting rate of 600 inches per hour for 2 inches thick steel, controlled by a cyclone/cartridge filter system (#4 TD), and venting inside the building.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating 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):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour. The combined maximum capacity of natural gas combustion sources is 4.81 MMBtu/hr.
 - (1) Seven (7) natural gas-fired furnaces, six (6) were constructed in 1998 and one (1) was constructed in 2003 [326 IAC 6.8-1-2]; and
 - (2) Forty six (46) natural gas-fired radiant heaters, constructed in 1985 [326 IAC 6.8-1-2]; and
 - (3) Three (3) natural gas-fired wall unit radiant heaters, constructed in 1985 [326 IAC 6.8-1-2].
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons, including one (1) gasoline storage tank, constructed in 1985, with a maximum storage capacity of 500 gallons and an annual throughput of 3,000 gallons [326 IAC 8-9].

Existing Approvals

The source has been operating under the previous Part 70 permit T089-4292-00090 issued on March 25, 2002, with an expiration date of March 25, 2007, and the following amendments and revisions:

- (a) MSM 089-18431-00090, issued on February 20, 2004;

- (b) SPM 089-17252-00090, issued on March 8, 2004;
- (c) AA 089-19890-00090, issued on January 26, 2005;
- (d) AA 089-22019-00090, issued on January 19, 2006; and
- (e) AA 089-22463-00090, issued on February 8, 2006.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this FESOP:

- (a) Emission Offset minor source limit, Condition D.1.2.

The Emission Offset minor limit in T089-4292-00090, issued on March 25, 2002 was taken to make the source minor for Emission Offset when Lake County was designated as a severe nonattainment area for the 1-hour ozone standard. The 1-hour ozone standard was revoked on October 25, 2006.

Source-wide PTE of VOC as reported in T089-4292-00090 was greater than 25 tons per year major source thresholds as defined by 326 IAC 2-7-1(22). However, those calculations incorrectly reflected limitations in physical and operational design. Using the revised calculation methodology the operation of this steel fabricating plant will no longer exceed 100 tons per year of VOC.

- (b) Limits to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, Condition D.2.2.

SPM 089-17252-00090, issued on March 8, 2004 limited PM and PM10 emissions from the Pangborn blast machine (Blast-01) and the Drill Machine (#3 OFD) to 1.5 pounds per hour and 0.1 pound per hour, respectively. These limits have been revised in this permit to 0.9 pounds of PM per hour and 1.8 pounds of PM10 per hour. The revised rate provides a more conservative estimate of PM and PM10 emissions from the blasting operations.

- (c) The requirements of 326 IAC 2-7 (Part 70) will no longer be applicable to this source after issuance of this FESOP.

Source-wide PTE of HAP and PM10 as reported in T089-4292-00090 exceeded major source thresholds as defined by 40 CFR 63.2 and 326 IAC 2-7-1(22). HAP emission calculations incorrectly reflected limitations in physical and operational design. Using the revised calculation methodology the source potential to emit no longer exceeds 10 tons per year of any HAP and 25 tons per year of any combination of HAPs. The source has agreed to accept federally enforceable restrictions on annual PM10 emissions.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP 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 FESOP application for the purposes of this review was received on June 20, 2007.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

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 or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	>250
PM10	>250
SO ₂	0.01
VOC	25.8
CO	0.78
NO _x	0.93

HAPs	Potential to Emit (tons/yr)
Xylene	8.52
Total	11.4

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 are greater than 100 tons per year and VOC is greater than 25 tons per year. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.
- (b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The source has opted to become a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original Title V permit.

Process/emission unit	Potential To Emit (tons/year)						Total HAPs
	PM	PM10	SO ₂	VOC	CO	NO _x	
Surface Coating Activities	9.99	9.99	-	24.5	-	-	Total: 9.58 Xylene: 8.52
Pangborn Blast Machine (Blast-01)	3.94	7.88	-	-	-	-	-
Blasting Operation (Blast-02)	53.0	53.0	-	-	-	-	-
Drill Machine	3.94	7.88	-	-	-	-	0.03
Welding - Flame Cutting	11.5	11.5	-	-	-	-	1.53
Combustion	0.02	0.07	0.01	0.05	0.78	0.93	0.02
Total Emissions	82.4	90.3	0.01	24.6	0.78	0.93	Total: 11.2 Xylene: 8.52

"-" Negligible

- (a) This existing source is not a major stationary source under 326 IAC 2-2 because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater, and it is not in one of the 28 listed source categories.
- (b) This existing stationary source is not a major stationary source for Emission Offset because the emissions of PM10 (as a surrogate for PM2.5), NO_x are less than one hundred (100) tons per year, and VOC is less than twenty-five (25) tons per year.

County Attainment Status

The source is located in Lake County.

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

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

- (a) U.S. EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Lake County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of non-attainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability - Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.

- (1) On December 22, 2006 the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

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. Therefore, VOC emissions were reviewed pursuant to the requirements for nonattainment new source review. 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. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.
- (c) Lake County has been classified as attainment or unclassifiable in Indiana for PM10, SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section.
- (d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit. 40 CFR 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984) does not apply to the 500 gallon gasoline storage tank even though it was constructed in 1985 because its capacity is less than 75 cubic meters.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63.3880, Subpart M) (326 IAC 20-28) are not included in this permit because although the source applies surface coatings to miscellaneous metal parts and products the source is not a major source of HAPs.

State Rule Applicability – Entire Source

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

The source was constructed in 1960 and modified in 1970, 1972, 1990, 2002, 2003, and 2006. This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2.

On March 25, 2002, the original Title V Permit No. T089-4292-00090 was issued. In 2002, the source's potential to emit PM/PM10 was greater than 250 tons/yr. Major sources of PM/PM10 emissions included a wheelabrator shot-blaster, originally constructed in 1990, and the paint booth. The permit required the shot-blaster dust collector to be in operation at all times that the wheelabrator was in operation. The source limited coatings applied by the paint booth such that PM and PM10 emissions were less than one hundred forty-nine (149) tons per year. The source was identified as a minor source for PSD because PM and PM10 emissions from the entire source were each limited to less than 250 tons/yr. Modifications have occurred since the issuance of the Title V Permit, but the potential to emit for regulated NSR pollutants has remained less than two hundred fifty (250) tons per year. The source maintained PSD minor source status.

On March 8, 2003, SPM 089-17252-00090 was issued for the construction of a Pangborn blast machine (Blast-01) and a plasma/xyo-fuel drill machine (#3 OFD) with dust collectors for control. The Pangborn blast machine replaced the wheelabrator shot-blaster, constructed in 1990. The following limits were incorporated into the Title V Permit.

Pursuant to SPM 089-17252-00090, AA 089-22463-00090, and revised by FESOP 089-25115-00090 the following federally enforceable limits are established:

- (a) The pangborn blast machine (Blast-01) PM emissions shall not exceed 0.90 lbs/hr (as limited by 326 IAC 6.8-1-2).
- (b) The plasma/xyo-fuel drill machine (#3 OFD) PM emissions shall not exceed 0.90 lbs/hr (as limited by 326 IAC 6.8-1-2).
- (c) The blasting operation (Blast-02) PM emissions shall not exceed 12.1 lbs/hr (as limited by 326 IAC 6-2-3).
- (d) The pangborn blast machine (Blast-01) PM10 emissions shall not exceed 1.80 lbs/hr.
- (e) The plasma/xyo-fuel drill machine (#3 OFD) PM10 emissions shall not exceed 1.80 lbs/hr.
- (f) The blasting operation (Blast-02) PM10 emissions shall not exceed 12.1 lbs/hr.

Compliance with the above limits combined with the controlled emissions from other emission units shall limit source wide PM and PM10 emissions to less than 250 tons per year and render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

On February 8, 2006, AA 089-22463-00090 was issued to replace the existing submerged arc welding operation consisting of three welding stations with another submerged arc welding operation consisting of three welding stations. One of the new welding stations has a slightly higher maximum capacity than the previous station. The new submerged arc welding operations still fall under the 5 lb/hr and 25 lb/day PM10 thresholds of an insignificant activity. PSD minor source status was maintained.

326 IAC 2-3 (Emission Offset)

Lake County has been designated as non-attainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM_{2.5} Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM_{2.5} major NSR regulations, states should assume that a major stationary source's PM₁₀ emissions represent PM_{2.5} emissions. IDEM will use the PM₁₀ nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM_{2.5} NAAQS. A major source for PM_{2.5} is a source that emits or has the potential to emit 100 tons/yr of PM₁₀.

This existing source is located in Lake County (nonattainment area for 8-hour ozone and PM_{2.5}) and has a potential to emit PM₁₀ and NO_x less than 100 tons per year and potential to emit VOC less than 25 tons per year. VOC is limited by the following condition. PM₁₀ limits are those discussed under 326 IAC 2-8 (FESOP) below. Therefore, the source is a minor source under 326 IAC 2-3.

Pursuant to T089-4292-00090, issued on March 25, 2002 the total VOC input to the paint booth (SCR-01) and their associated clean-up activities shall be limited to less than twenty-four and five-tenths (24.5) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Compliance with this limit, combined with the emissions from other emission units, shall limit source wide VOC emissions to less than 25 tons per year and render 326 IAC 2-3 not applicable.

On December 22, 2006 the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. vs. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007).

The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that an existing source must achieve the Lowest Achievable Emission Rate (LAER) for modifications that exceed 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

326 IAC 2-8 (Federally Enforceable State Operating Permit Program)

The potential to emit VOC is greater than 25 tons per year. The VOC limits established in 326 IAC 2-3 (Emission Offset) and the PM₁₀ limits established in 326 IAC 2-2 (PSD) will satisfy the requirements of 326 IAC 2-8 and render the 326 IAC 2-7 (Part 70) not applicable.

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

Source-wide PTE of hazardous air pollutants (HAPs) as reported in T089-4292-00090 were greater than major source thresholds as defined by 40 CFR 63.2. However, those calculations incorrectly reflected limitations in physical and operational design. Using the revised calculation methodology the operation of this steel fabricating plant will no longer exceed 10 tons per year of any HAP and 25 tons per year of any combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is not required to operate under a Part 70 permit. This source is located in Lake County and has limited potential VOC emissions less than twenty-five (25) per year. Therefore, only the provisions of 326 IAC 2-6-5 (Additional Information Requests) apply to this source.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 6.8-1-2 (Particulate emission limitations; fuel combustion steam generators, asphalt concrete plant, grain elevators, foundries, mineral aggregate operations; modification by commissioner)

This source is subject to 326 IAC 6.8-1-2 because it is located in Lake county, it is not specifically listed in 326 IAC 6.8-2 through 326 IAC 6.8-11, and it has the potential to emit greater than one hundred (100) tons per year of particulate matter.

Pursuant to this rule, the discharge of any gases from the paint booth (SCR-01), the welding/flame-cutting operation, the pangborn blast machine (Blast-01), and the blasting operation (Blast-02) which contain particulate matter in excess of 0.07 gram per dry standard cubic meter (g/dscm) (0.03 grain per dry standard cubic foot (dscf)) shall not be allowed.

The surface coating paint booth shall be controlled by a dry particulate filter. The control efficiency of the dry filters shall not be less than 80%.

The blasting operation (Blast-02) is operated inside an enclosed room, there is no measurable flowrate. There are no direct external exhausts and no control equipment. The size of the room is 80 feet long, 28 feet wide and 24 feet tall. IDEM has assumed that entire volume of air from the enclosed room would be evacuated within a single minute. Therefore, to comply with 326 IAC 6.8-2-1, the enclosure for Blast-02 must be maintained during blasting operations.

Pursuant to 326 IAC 6.8-1-2(b)(2), the PM emission from the seven (7) natural gas-fired furnaces, the forty six (46) natural gas-fired radiant heaters, and the three (3) natural gas-fired wall unit radiant heaters shall not exceed 0.15 lb/MMBtu.

326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Operations)

The requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), are not applicable to the emission unit at this source because they are subject to the more stringent limits in 326 IAC 6.8-1-2 (see discussion above).

- (a) The following table compares the 326 IAC 6-3-2 allowable limit with the limitations established in 326 IAC 6.8. The 326 IAC 6-3-2 allowable is calculated using the equations in 326 IAC 6-3-2. Note that flame cutting is not subject to 326 IAC 6-3-2 because it is specifically exempt under 326 IAC 6-3-1(b)(10).

Emission Source (Source ID)	Maximum Throughput (tons/hr)	326 IAC 6-3-2 Allowable Emission Rate (lb/hr)	326 IAC 6.8 Allowable Emission Rate (gr/dscf) [lb/hr]	Maximum Flowrate (cfm)	326 IAC 6.8 is more stringent (yes/no)
Blasting Operation (Blast-02)	5.025	12.1	0.03 [13.8]	53,760 (a)	no
Pangborn Blast Machine (Blast-01)	15.075	25.2	0.03 [0.90]	3,500	yes
Plasma/xyo-fuel Drill Machine (#3 OFD)	600"/hr	(b)	0.03 [0.90]	3,500	yes
Paint Booth (SCR-01)	12.0 gal/hr	(c)	0.03	not applicable	yes

(a) - The blasting operation (Blast-02) is operated inside an enclosed room, there is no measurable flowrate. There are no direct external exhausts and no control equipment. The size of the room is 80 feet long, 28 feet wide and 24 feet tall. IDEM has assumed that entire volume of air from the enclosed room would be evacuated within a single minute.

(b) - Pursuant to 326 IAC 6-3-1(b)(10), the flame cutting operation is exempt from 326 IAC 6-3-2 because the flame cutting cuts less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less.

(c) - Pursuant to 326 IAC 6-3-2(d), the paint booth shall use a dry filter for particulate control at all times the surface coating booth is in operation. The control device shall be operated in accordance with manufacturer's specifications.

- (b) Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Blasting Operation (Blast-02) shall not exceed 12.1 lbs/hr when operating at a process weight rate of 5.025 tons/hr.

326 IAC 6.8-2 (Lake County: PM10 Emission Requirements)

This source is located in Lake County and is not specifically listed in 326 IAC 6.8-2-3 through 326 IAC 6.8-2-38. Therefore, 326 IAC 6.8-2 (Lake County PM10 Emission Requirements) does not apply.

326 IAC 6.8-9 (Lake County PM10 Coke Battery Emission Requirements)

This source is located in Lake County and there is no coke battery at the site. Therefore, 326 IAC 6.8-9 (Lake County PM10 Coke Battery Emission Requirements) does not apply.

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

This source is located in Lake County, the potential to emit fugitive particulate matter into the atmosphere is less than five (5) tons per year. Therefore, 326 IAC 6.8-10 (Lake County: Fugitive Particulate Matter) does not apply.

326 IAC 7-4.1-1 (Lake County Sulfur Dioxide Emission Limitations)

This source is located in Lake County and the potential to emit SO₂ is less than twenty-five (25) tons per year and ten (10) pounds per hour. Therefore, 326 IAC 7-4.1-1 and 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations) do not apply.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This source is located in Lake County, was constructed prior to January 1, 1980, but has potential VOC emissions less than 100 tons per year. Therefore, 326 IAC 8-6 (Organic Solvent Emission Limitations) does not apply.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

This source is not subject to 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties) because the only source of VOC emissions is the surface coating booth, which is subject to 326 IAC 8-2-9. Pursuant to 326 IAC 8-7-2(a)(3), facilities that are subject to VOC limitations under 326 IAC 8-2 are not subject to the provisions of 326 IAC 8-7.

State Rule Applicability - Paint Booth

326 IAC 8-1-6 (New Facilities: General Reduction Requirements)

The paint booth was constructed prior to January 1, 1980 and is subject to another Article 8 rule (See 326 IAC 8-2-9 discussion below). Therefore, 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The surface coating booth (SCR-01) is subject to the requirements of 326 IAC 8-2-9 because this facility existed on July 1, 1990, is located in Lake County, and has actual emissions of greater than fifteen (15) pounds of VOC per day.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to the applicator at the surface coating operation shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source certain cleanup solvents are noncompliant. Pursuant to 326 IAC 8-1-2(a)(7), the source shall comply using either compliant coating or a daily average when noncompliant coatings are used. The source shall record the amount of each coating used each day. The daily volume-weighted VOC content is calculated using the following equation:

Where:

$$A = \left(\sum C \times U \right) / \left(\sum U \right)$$

A = Volume weighted average (pounds VOC/gallon) less water as applied;

C = VOC content of the coating (pounds VOC/gallon) less water as applied; and

U = Usage rate of the coating (gallons/day).

State Rule Applicability - Storage Tanks

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

The gasoline storage tank at this source will be subject to the requirements of 326 IAC 8-9. Since the storage tank at this source has a capacity less than 39,000 gallons, this source is subject to the reporting and record keeping provisions of 326 IAC 8-9-6(a) and (b), which have the following requirements:

- (a) The owner or operator of each vessel shall maintain records for the life of the vessel for the following information:
 - (1) The vessel identification number.
 - (2) The vessel dimensions.
 - (3) The vessel capacity.
 - (4) A description of the emission control equipment for each vessel described in 326 IAC 8-9-4(a) and 4(b), if applicable, or a schedule for installation of emission control equipment on vessels described in 326 IAC 8-9-4(a) and 4(b), if applicable, with a certification that the emission control equipment meets the applicable standards.
- (b) A report containing the information described in (a) shall be submitted to IDEM, OAQ.

Testing Requirements

No testing is required for the paint booth because the Permittee is required to keep records for the VOC usage and to perform regular monitoring of the dry filter used for particulate control.

Testing is not required for the drilling and blasting operations because actual emissions are much lower than the minor limits contained in the permit.

Compliance Requirements

Permits issued under 326 IAC 2-8 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 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

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

Control	Parameter	Frequency	Range	Excursions and Exceedances
Pangborn blast machine	Water Pressure Drop	Daily	3.0 and 6.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Paint booth	Verify placement and particle loading of the filters	Daily	Normal-Abnormal	Response Steps
	Presence of overspray	Monthly	Normal-Abnormal	
Plasma/oxy-fuel drill machine	Water Pressure Drop	Daily	3.0 and 6.0 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

These monitoring conditions are necessary because the dust collector for the pangborn blast machine must operate properly to ensure compliance with the limits to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable and to comply with 326 IAC 2-7 (Part 70).

These monitoring conditions are necessary because the paint booth must comply with the limits to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable and to comply with 326 IAC 6.8-1-2 and 326 IAC 2-7 (Part 70).

These monitoring conditions are necessary because the dust collector for the plasma/oxy-fuel drill machine must operate properly to ensure compliance with the limits to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable and to comply with 326 IAC 2-7 (Part 70).

Conclusion

The operation of this miscellaneous steel fabricating plant shall be subject to the conditions of the FESOP F089-25115-00090.

**Appendix A: Emission Calculations
Emissions Summary**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP: F089-25115-00090
Reviewer: ERG/BL
Date: July 2, 2007

	Potential to Emit Before Control (tons/yr)							
	PM	PM-10	SO ₂	VOC	CO	NOx	Xylene	Total HAPs
Surface Coating Operations	50.0	50.0	-	25.7	-	-	8.52	9.58
Pangborn Blast Machine (Blast-01)	1,122	112	-	-	-	-	-	-
Blasting Operation (Blast-02)	374	37.4	-	-	-	-	-	-
Plasma/Oxy-fuel Drill Machine	51.2	51.2	-	-	-	-	-	0.28
Welding - Flame Cutting	11.5	11.5	-	-	-	-	-	1.53
Combustion	0.04	0.16	0.01	0.11	1.74	2.07	-	0.04
Total	1,609	262	0.01	25.8	1.74	2.07	8.52	11.4

	Limited Potential to Emit (tons/yr)							
	PM	PM-10	SO ₂	VOC	CO	NOx	Xylene	Total HAPs
Surface Coating Operations	9.99	9.99	-	24.5	-	-	8.52	9.58
Pangborn Blast Machine (Blast-01)	3.94	7.88	-	-	-	-	-	-
Blasting Operation (Blast-02)	53.0	53.0	-	-	-	-	-	-
Plasma/Oxy-fuel Drill Machine	3.94	7.88	-	-	-	-	-	0.03
Welding - Flame Cutting	11.5	11.5	-	-	-	-	-	1.53
Combustion	0.04	0.16	0.01	0.11	1.74	2.07	-	0.04
Total	82.4	90.4	0.01	24.6	1.74	2.07	8.52	11.2

**Appendix A: Emission Calculations
VOC Emissions
Surface Coating Activities**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP: F089-25115-00090
Reviewer: ERG/BL
Date: July 2, 2007

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit) *	Maximum (unit/hour)	Pounds VOC per gallon of coating	Material Usage (gal/hr)	Material Usage (lb/hr)	Potential VOC pounds per hour	Potential VOC pounds per day	PTE of VOC (tons/yr)	PTE of PM, Before Control (ton/yr)	PTE of PM, After Control (ton/yr)	Pounds VOC per Gallon of Solids	Transfer Efficiency*	
E61A280 Gray Epoxy Primer	24.9	10.9%	10.9%	66.0%	1.00	1.83	2.71	1.83	45.6	4.97	119	21.8	44.5	8.90	4.11	75%	
Potential Emission Rates - Epoxy Gray Primer As Applied											4.97	119	21.8	44.5	8.90		
OR																	
Carbozinc 11 HS Primer	27.2	8.30%	8.30%	75.0%	1.00	1.83	2.25	1.83	49.8	4.13	99.1	18.1	50.0	9.99	3.00	75%	
Potential Emission Rates - Carboz Primer As Applied											4.13	99.1	18.1	50.0	9.99		
OR																	
HS Red Oxide HS Primer	13.3	20.0%	20.0%	61.0%	1.00	1.83	2.65	1.83	24.3	4.86	117	21.3	21.3	4.26	4.34	75%	
Potential Emission Rates - B50N23 Red Oxide Primer As Applied											4.86	117	21.3	21.3	4.26		
AND																	
Xylene ***	7.18	100%	100%	0%	0.05	1.83	7.18	0.09	0.66	0.66	15.8	2.88	0.00	0.00	NA	100%	
Isopropyl Alcohol ***	6.76	100%	100%	0%	0.02	1.83	6.76	0.04	0.25	0.25	5.95	1.09	0.00	0.00	NA	100%	
Total Potential Emission Rates for Cleanup Solvents											0.91	21.7	3.97	0.00	0.00		
Potential Emission Rates - Epoxy Gray Primer As Applied; This represents worst case											4.97	119	21.8	50.0	9.99		
Cleanup Solvents											0.91	21.7	3.97	0.00	0.00		
Worst Case Coating + Cleanup Solvent = Potential to Emit											5.87	141	25.7	50.0	9.99		

*One Unit = 100 sq feet of Structural Metal

**The particulate control efficiency of dry filters is 80%.

*** Xylene and Isopropyl Alcohol are used as cleanup solvents only. Pursuant to 326 IAC 8-1-2(a)(7), the source can comply with 326 IAC 8-2-9 (Miscellaneous Metal Coating) using a daily average.

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hrs/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1-Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

HAZARDOUS AIR POLLUTANTS

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Methanol	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)	
E61A280 Gray Epoxy Primer	24.9	1.00	1.83	0.04%	0%	0%	1.84%	0.17%	0.08	0.00	0.00	3.67	0.34	4.09	
Potential Emission Rates - Epoxy Gray Primer As Applied										0.08	0.00	0.00	3.67	0.34	4.09
OR															
Carbozinc 11 HS Primer	27.2	1.00	1.83	0%	0.01%	0%	0%	0%	0.00	0.02	0.00	0.00	0.00	0.02	
Potential Emission Rates - Carboz Primer As Applied										0.00	0.02	0.00	0.00	0.00	0.02
OR															
HS Red Oxide HS Primer	13.3	1.00	1.83	1.00%	0%	0%	0%	8.00%	1.06	0.00	0.00	0.00	8.52	9.58	
Potential Emission Rates - B50N23 Red Oxide Primer As Applied										1.06	0.00	0.00	0.00	8.52	9.58
AND															
Xylene ***	7.18	0.05	1.83	0%	0%	0%	0%	100%	0.00	0.00	0.00	0.00	2.88	2.88	
Isopropyl Alcohol ***	6.76	0.02	1.83	0%	0%	0%	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00	
Total Potential Emission Rates for Cleanup Solvents										0.00	0.00	0.00	0.00	2.88	2.88
Cleanup Solvents										0.00	0.00	0.00	0.00	0.00	2.88
Worst Case HAP Emission Rates ***										1.06	0.00	0.00	0.00	8.52	9.58

Methyl Isobutyl Ketone - MIBK

*** Airless Spray Application and Manual Cleaning - Mutually Exclusive Coating Application; Isopropyl alcohol is the only cleanup solvent used when coating B50N23 Red Oxide Primer

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs - Add Worst Case Coating to All Cleanup Solvents

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Pangborn Blast Machine (Blast-01) and the Blasting Operation (Blast-02)

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP: F089-25115-00090
Reviewer: ERG/BL
Date: July 2, 2007

Unit ID	Max. Steel Blasted (tons/hr)	PM Emission Factor Before Control (lbs/ton)	PM10 Emission Factor Before Control (lbs/ton)	PTE of PM Before Control (ton/yr)	PTE of PM10 Before Control (ton/yr)	Control Device	Control Efficiency	PTE of PM After Control (tons/yr)	PTE of PM10 After Control (tons/yr)	326 IAC 6.8-1-2 PM Limit (gr/dscf)	327 IAC 6.8-1-2 PM Limit (lbs/hr)	328 IAC 6.8-1-2 PM Limit (tons/yr)	326 IAC 6-3-2 PM Limit (lb/hr)	326 IAC 6-3-2 PM Limit (tons/yr)	327 IAC 2-2 PM10 Limit (lbs/hr)	328 IAC 2-2 PM10 Limit (tons/yr)
Blast-01 *	15.1	17.0	1.70	1,122	112	Cyclone/ cartridge filter	99.9%	1.12	0.11	0.03	0.90	3.94	25.2	-	1.80	7.88
Blast-02 **	5.03	17.0	1.70	374	37.4	Enclosure	99.9%	0.37	0.04	0.03	13.8	60.5	12.1	53.0	13.8	60.5
Total				1,497	150			1.50	0.15			64.5				68.4

* The capacity of the Pangborn blast unit (Blast-01) is 1.5 feet per minute of structural steel with a weight of 335 lbs/foot. This results in a process weight rate of approximately 502.5 lbs/minute or 15.075 tons/hr. The device is controlled by a cyclone/cartridge filter system. The exhaust gas flowrate is 3,500 cfm.

** The blasting operation (Blast-02) has a capacity of blasting approximately 0.5 feet per minute of structural steel with a weight of approximately 335 lbs/foot. This results in a process weight rate of 167.5 lbs/minute or 5.025 tons/hr. There blasting operation is operated inside an enclosed room. There are no direct external exhausts and no control equipment. The size of the room is 80 feet long, 28 feet wide, and 24 feet tall. A PM emission limit has been established to avoid 326 IAC 2-2 (PSD), by assuming all blasting waste would be evacuated with entire volume of air from the enclosed room.

Emission factor is from EPA FIRE Version 6.25 - Gray Iron Foundries, Grinding/Cleaning (SCC: 3-04-003-40).

Methodology

PM/PM10 Potential to Emit (lbs/hr) = Max. Abrasive Usage (tons/hr) * PM/PM10 Emission Factor (lbs/ton)
PM/PM10 Potential to Emit (tons/yr) = Max. Abrasive Usage (tons/hr) * PM/PM10 Emission Factor (lbs/ton) * 8,760 hrs/yr * 1 ton/2,000 lbs
PM/PM10 Potential to Emit After Control (lbs/hr) = PM/PM Potential to Emit Before Controls (lbs/ton) * (1 - Control Efficiency)
PM/PM10 Potential to Emit After Control (tons/yr) = PM/PM Potential to Emit Before Controls (tons/yr) * (1 - Control Efficiency)
PM Limit (lb/hr) = PM Emission Factor Before Control (lbs/ton) * Max. Abrasive Usage (tons/hr) * (1 - Control Efficiency)
PM10 Limit (lb/hr) = PM10 Emission Factor Before Control (lbs/ton) * Max. Abrasive Usage (tons/hr) * (1 - Control Efficiency)

**Appendix A: Emission Calculations
From the Plasma/Oxy-fuel Drill Machine (#3 OFD)**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP: F089-25115-00090
Reviewer: ERG/BL
Date: July 2, 2007

PROCESS	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick) *				UNCONTROLLED POTENTIAL TO EMIT (lbs/hr)				HAPS (lbs/hr) Total HAPs
				PM = PM10	Mn	Ni	Cr	PM / PM10	Mn	Ni	Cr	
FLAME CUTTING												
Oxyacetylene	1	2.00	600	0.16	5.00E-04	1.00E-04	3.00E-04	11.7	0.04	0.01	0.02	0.06
Oxymethane	1	2.00	600	0.08	2.00E-04		2.00E-04	5.87	0.01		0.01	0.03
Plasma*	1	2.00	600	3.90E-03				0.28				

POTENTIAL TO EMIT, BEFORE CONTROL

Potential to Emit Before Controls (lbs/hr)				11.7	0.04	0.01	0.02	0.06
Potential to Emit Before Controls (tons/year)				51.2	0.16	0.03	0.09	0.28

POTENTIAL TO EMIT, AFTER CONTROL

Potential to Emit After Control (lbs/hr)				0.58	3.60E-03	7.20E-04	2.16E-03	0.01
Potential to Emit After Control (tons/year)				2.56	0.02	3.15E-03	0.01	0.03

LIMITED POTENTIAL TO EMIT

326 IAC 6.8-1-2 PM Limit (gr/dscf)				0.03
327 IAC 6.8-1-2 PM Limit (lbs/hr)				0.90
328 IAC 6.8-1-2 PM Limit (tons/yr)				3.94
327 IAC 2-2 PM10 Limit (lbs/hr)				1.80
328 IAC 2-2 PM10 Limit (tons/yr)				7.88

* All emission factors for plasma cutting are from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted).

Therefore, the emission factor for plasma cutting is for 8 mm thick mild steel.

Using AWS average values: (0.25 g/min)/(3.6 m/min) * (0.0022 lb/g)/(39.37 in./m) * (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

The plasma/oxy-fuel drill machine is controlled by a cyclone/cartridge filter system. The PM control efficiency of the device is 95% and the exhaust gas flowrate is 3,500 cfm.

METHODOLOGY

Cutting Process Potential to Emit (lb/hr): # of Stations * Max. Metal Thickness (in) * Max. Cutting Rate (in/min) * 60 min/hr * Emissions Factor (lb/1,000 inches cut, 1 inch thick)

Plasma Cutting Potential to Emit (lb/hr): # of Stations * Max. Cutting Rate (in/min) * 60 min/hr * Emission Factor, (lb/1,000 inch cut, 8 mm thick)

Welding Potential to Emit (lb/hr): # of Stations * Max. Electrode Used (lb/hr/station) * Emission Factor (lb pollutant/lb of electrode used)

Potential to Emit, Before Control (tons/yr) = Emissions (lbs/hr) * 8,760 hrs/year * 1 ton/2,000 lbs

Potential to Emit, After Control (lbs/hr) = Potential to Emit Before Controls (lbs/hr) * (1- Control Efficiency)

Potential to Emit, After Control (tons/yr) = Potential to Emit Before Controls (lbs/hr) * 8,760 hr/yr * 1 ton/2,000 lbs * (1- Control Efficiency)

Appendix A: Emission Calculations
Welding - Flame Cutting

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP: F089-25115-00090
Reviewer: ERG/BL
Date: July 2, 2007

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				POTENTIAL TO EMIT (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Submerged Arc	3	8.19		5.00E-05	0.01			1.23E-03	0.27			0.27
Metal Inert Gas (MIG)(carbon steel)	4	5.00		0.02	3.40E-05			0.48	6.80E-04			6.80E-04
Stick (E7018 electrode)	17	5.00		0.02	9.00E-04			1.79	0.08			0.08
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Propane	1	3.00	12.0	0.162	5.00E-04	1.00E-04	3.00E-04	0.35	1.08E-03	2.16E-04	6.48E-04	1.94E-03

POTENTIAL TO EMIT, UNCONTROLLED

Potential to Emit Uncontrolled (lbs/hr)					2.63	0.349	2.16E-04	6.48E-04	0.35
Potential to Emit Uncontrolled (tons/year)					11.5	1.53	9.46E-04	2.84E-03	1.53

*Emission factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

Emission factors are from AP 42, Chapter 12.19, Submerged Arc Welding, Table 12.19-1 (SCC 3-09-054-10) (1/95).

**Emission factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted).

Therefore, the emission factor for plasma cutting is for 8 mm thick mild steel.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Welding and other flame cutting emission factors are from an internal training session document.

Refer to AP-42, Chapter 12.19 for additional emission factors for welding.

METHODOLOGY

Cutting Process Potential to Emit (lb/hr): # of Stations * Max. Metal Thickness (in) * Max. Cutting Rate (in/min) * 60 min/hr * Emissions Factor (lb/1,000 inches cut, 1 inch thick)

Plasma Cutting Potential to Emit (lb/hr): # of Stations * Max. Cutting Rate (in/min) * 60 min/hr * Emission Factor, (lb/1,000 inch cut, 8 mm thick)

Welding Potential to Emit (lb/hr): # of Stations * Max. Electrode Used (lb/hr/station) * Emission Factor (lb pollutant/lb of electrode used)

Potential to Emit Uncontrolled (tons/yr) = Emissions (lbs/hr) * 8760 hrs/year * 1 ton/2000 lbs

**Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Furnaces and Radiant Heaters**

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
FESOP: F089-25115-00090
Reviewer: ERG/BL
Date: July 2, 2007

Heat Input Capacity * MMBtu/hr 4.81

Potential Throughput MMSCF/yr 41.3
--

	Pollutant					
	PM**	PM10**	SO ₂	NOx	VOC	CO
Emission Factor (lb/MMSCF)	1.90	7.60	0.60	100.0 ***see below	5.50	84.0
Potential to Emit (tons/yr)	0.04	0.16	0.01	2.07	0.11	1.74

* Seven (7) natural gas-fired furnaces, forty six (46) natural gas-fired radiant heaters, and three (3) natural gas-fired wall unit radiant heaters.

** PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM combined.

*** Emission Factors for NOx (Uncontrolled) = 100 lb/MMSCF

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July 1998)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMSCF = 1,000,000 Standard Cubic Feet of Gas

Methodology

Potential Throughput (MMSCF/yr) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMSCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMSCF/yr) * Emission Factor (lb/MMSCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Furnaces and Radiant Heaters

Company Name: Munster Steel Co., Inc.
Address: 9505 Calumet Ave., Munster, IN 46321
Permit Number: F089-25115-00090
Reviewer: ERG/BL
Date: 8/1/2006

HAPs - Organics

Emission Factor (lb/MMSCF)	Benzene 2.10E-03	Dichlorobenzene 1.20E-03	Formaldehyde 7.50E-02	Hexane 1.80E+00	Toluene 3.40E-03
Potential to Emit (tons/yr)	4.34E-05	2.48E-05	1.55E-03	3.72E-02	7.03E-05

HAPs - Metals

Emission Factor (lb/MMSCF)	Lead 5.00E-04	Cadmium 1.10E-03	Chromium 1.40E-03	Manganese 3.80E-04	Nickel 2.10E-03
Potential to Emit (tons/yr)	1.03E-05	2.27E-05	2.89E-05	7.85E-06	4.34E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors provided above are from AP 42, Chapter 1.4. Additional HAPs emission factors are available in AP-42, Chapter 1.4.